Supporting Every Young Learner:
Maryland's Guide to Early Childhood Pedagogy
Birth to Age 8

MARYLAND STATE DEPARTMENT OF EDUCATION
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Lillian M. Lowery, Ed.D.
State Superintendent of Schools

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Dear Colleagues,

It is with great pleasure to present to you a new resource for teachers, principals, and community-based early childhood education programs - *Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy, Birth to Age 8*. It is the latest tool produced by the Maryland State Department of Education's (MSDE) Division of Early Childhood Development to inform and engage early educators on evidence-based practices of teaching and learning. Additionally, as an expansion of the knowledge available in this comprehensive resource you will also find the *Maryland Early Learning Standards Birth to 8 Years*, which serves as a companion guide for the pedagogical and programmatic decisions of early childhood programs and providers.

With the implementation of the new and more rigorous Maryland College and Career-Ready Standards, many practitioners were looking for direction and resources highlighting effective practices. To meet that need, this *Guide* is designed to provide the following:

- Chapters on critical areas of early childhood education such as understanding brain functions in child development, family engagement, or intentional instruction;
- Descriptions of experiences from the field with highly skilled teachers;
- Practical teaching tips for early educators;
- Outlines of the continuity of learning from birth to age eight in terms of the intersections between play and learning, and the alignment of practices in programs serving children prior to kindergarten and their transition into the lower grades in school;
- More resources and web links for further study; and
- A supplemental resource for post-secondary study in teacher education programs as the *Guide* is not only intended for practitioners in the field but also for those who are being prepared as teachers.

Currently, MSDE is developing an interactive website which will include the content of the *Guide* and a series of toolkits for practitioners whether they work in child care, Head Start, nursery schools, or public schools.

I encourage you to become familiar with the *Guide* and use it to enhance your work as a teacher, administrator, college faculty, professional developer, or curriculum specialist.

Thank you for your important contribution to preparing our students for the 21st century.

Sincerely,

Jack R. Smith, Ph.D.
Interim Superintendent of Schools

Maryland State Department of Education
Division of Early Childhood Development

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EXECUTIVE SUMMARY

Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy, Birth to Age 8 presents best practices and ideas for creating rich and meaningful early learning experiences for every child. Informed by research and crafted by educators across Maryland, it is intended to be a "go-to" resource for early childhood educators in all settings. It links the important work that early care providers, Head Start programs, child care centers and schools do to help our young learners.

The early years are pivotal for setting children on a positive learning trajectory. As research and experience has consistently shown, when children have strong, dependable relationships with caring adults and quality early learning experiences that afford them time to play, explore, and discover, they are more likely to be ready for success in school.

This guide sets forth critical information that all early childhood educators need to know to be able to support children's development. It emphasizes the importance of building the foundations in the early years that will enable learning to unfold. The value of families, schools, and communities working together is reinforced in the examples that are shared throughout the guide. It honors the diversity of the children and presents strategies to ensure that every child has appropriate experiences to realize growth. This guide is designed to provide insight and inspiration for all early childhood educators.

The guide is organized in eight chapters, each illuminating one critical segment of learning:

Chapter 1: Introduction – This introductory chapter highlights the many efforts in Maryland to strengthen the education system for young children, explains how to use the guide as a tool for early childhood educators, and describes how the guide is organized.

Chapter 2: Child Development – This chapter reviews the different theories of child development and the recent work of brain research on learning. It examines the seven domains of development from the Maryland Early Learning Guidelines, explains the importance of educating the whole child and the forms of play in the context of child development.

Chapter 3: Engaging Families and Communities – This chapter highlights the Maryland Early Childhood Engagement Framework and the differences between family involvement and family engagement. It offers strategies for engaging families and communities, and research on successful family engagement practices. It shares a multitude of programs in Maryland that support families.

Chapter 4: Fostering Appreciation of Diversity – This chapter emphasizes the importance of embracing the diversity of our families and making it a part of our teaching. It examines changing demographics and the impact of poverty. The chapter highlights strategies and programs for children that have disabilities, are gifted or talented, or are English language learners. Assistive technology and Universal Design for Learning reveals practices to allow all children access to learning. The chapter features Social and Emotional Foundations for Early Learning (SEFEL), a model supporting the emotional needs of children. Educators share best practices for supporting diversity in the early childhood setting.

Chapter 5: The Importance of Play and Subject Matter for Teaching Young Children – This chapter discusses the importance of play in developing social emotional and executive functioning skills, and in laying the foundation for cognitive and academic success. It reviews subject matter in the context of Maryland's Healthy Beginnings guidelines, the Early Learning Standards and the Maryland College and Career-Ready Standards using the domains of child development and early learning: social foundations, language and literacy, physical well-being and motor development, the

arts, and the cognitive areas of mathematics, science, and social studies. The chapter features Vocabulary Improvement and Oral Language Enrichment through Stories (VIOLETS) and PEEP and the Big Wild World™, as examples of programs that support the subject matter being taught to young children.

Chapter 6: Planning and Managing the Environment for Development and Learning – This chapter describes how early childhood educators develop an understanding of children as individuals. It explains the critical role that early childhood educators play in instructional planning and the use of curricula and learning objectives to meet the needs of children. It defines the benefits of a professional learning community. The chapter also describes creating indoor and outdoor environments that support children's learning, and developing schedules, routines, transition time, and safety for a quality early learning program.

Chapter 7: Pedagogy: Making it Thoughtful and Intentional – This chapter defines pedagogy as the art and practice of teaching and its impact on the quality of the interactions between early childhood educators and children, the extent that children take ownership of their learning and the rigor of the learning. The chapter describes five areas of pedagogy: communication, engagement, questioning and discussion, feedback, and differentiation. It illustrates the importance of having pedagogy that is thoughtful and intentional in creating an environment that supports the development of secure emotional foundations for young children.

Chapter 8: Assessing Children's Development and Learning – This chapter explains why assessment is important, the different types of assessments in early childhood programs, how to use assessment to set goals and measure growth, and ways to engage families as partners in assessment.

Together, these chapters are intended to help the early childhood educator provide a developmentally appropriate learning experience, which every child needs to reach their fullest potential.

ACKNOWLEDGEMENTS

In the crafting of this document, we want to acknowledge the skillful work of the Maryland Early Childhood Guide to Pedagogy Workgroup which was convened in 2012-2013. It was charged with developing a user-friendly guide for the early childhood field that would ensure children from birth through grade two receive high quality early learning experiences to prepare them for success in school, thus contributing to college, career and life readiness. The workgroup used the following focus areas as it developed the guide:

- Reflect the latest research and understanding of best practices for supporting early learning, school readiness and the importance of intentional connections between early learning and early elementary grades;
- Build upon and inform effective implementation of other Maryland early learning efforts such as the Maryland College and Career-Ready Standards, Maryland Healthy Beginnings, Maryland Ready for Kindergarten (R4K) Early Childhood Comprehensive Assessment System, and Maryland Excellence in Early Learning and School Age Care, Maryland EXCELS;
- Connect with other recently revised national and state standards including, but not limited to, the National Association for the Education of Young Children's Developmentally Appropriate Practices, early learning frameworks from other states,[1] and the National Board for Professional Teaching Standards;
- Attend to Maryland's commitment to Universal Design for Learning, family engagement, and cultural competence not as add-ons but as central elements of practice;

1 California's Preschool Curriculum Framework, Connecticut's Guide to Early Childhood Development

- Provide information for diverse and inclusive environments including English Language Learners and those with special learning needs; and
- Be applicable for the full spectrum of learning environments, from family childcare to center-based childcare, Head Start/Early Head Start, Montessori, and the public schools.

The Workgroup included a statewide network representing the range of early childhood educators– family childcare, center-based child care, Head Start/Early Head Start, Montessori, early intervention, and public schools. In addition, the workgroup included members with deep expertise in key areas of concern such as social and emotional development, quality learning environments, and cultural competence, as well as members representing the broader range of children, youth and family services such as foster care, home visiting and nutrition supports and services.

We sincerely appreciate the contributions of Maryland early childhood educators for their insights and valuable vignettes found throughout the guide. We believe the voice of field practitioners, from the broad range of early childhood programs operating in Maryland, adds relevance and gives life to the theory and research presented in this guide. Expert reviewers played a critical role in providing critical insight and suggestions for improving the accuracy and quality of this guide.

In particular, we thank the ninety highly skilled early childhood educators that joined four separate focus groups and provided many helpful vignettes and comments on the first draft of the Guide.

We appreciate the writing skills of Deborah Roderick Stark as the lead author of this document as well as Michele Goady, T.J. Bennett, Robert Wagner, Patricia Ewing, Judy Walker, Tracy Jost, and Larry Jones for their work as the MSDE editing group. We want to thank Shannon Ayers, James Squires, Deborah Cate, and Shelley DeFossett for their insights and expert advice as national reviewers. Much appreciation goes to Sharon Morgan and Carol Hahn from the Maryland Association of Elementary School Principals for their feedback.

CHAPTER 1: INTRODUCTION

This introductory chapter highlights the many efforts underway in Maryland to strengthen the education system for young children. It explains how to use the guide as a tool for early childhood educators, and describes how the guide is organized.

◆ Helpful terms ◆ Maryland early education initiatives ◆ Supporting young learners ◆ Using the guide ◆ Resources and web links ◆

HELPFUL TERMS

Early Childhood Educator	Early childhood educators are those who create intentional learning opportunities for children from birth to age 8. Early childhood educators work within many settings, including family child care, center-based child care, Head Start/Early Head Start, Montessori, early intervention, and public schools.
Family	Family includes those adults in a child's life who provide the primary care for the child day in and day out. Family may be parents, grandparents, foster or adoptive parents, guardians or kin.
Pedagogy	Pedagogy is the art and practice of teaching.
Play	Play is an organizing framework for children to investigate and build knowledge. This guide uses the term playful learning.

MARYLAND EARLY EDUCATION INITIATIVES

Early education has been an important part of Maryland's commitment to ensuring success for every child. In 1992, Maryland issued *Laying the Foundation for School Success: Recommendations for Improving Early Learning Programs in Maryland*. The report has been a valuable resource for building family and community partnerships to promote children's readiness for school success. This was followed with the Maryland Model for School Readiness (MMSR) in the late 1990s, a groundbreaking initiative that annually assessed children's readiness for school. The MMSR provided parents, teachers, and early childhood educators with a common understanding of what preschool, prekindergarten and kindergarten children should know and be able to do upon entering school. It defined the early learning foundation for the Maryland State Curriculum.

Maryland Healthy Beginnings: Supporting Development and Learning from Birth through Three Years of Age, originally published in 2004 and later revised, remains a valuable resource for parents and early childhood educators. The booklet provides information about child development from birth through three years in the following domains: personal and social development, language development, cognitive development, and physical development. Another major event occurred when all early childhood programs were placed under the umbrella of the Maryland State Department of Education (MSDE) in 2005. The change enabled MSDE to intentionally align early learning and public education.

Early education received an additional boost with the implementation of full-day kindergarten and the expansion of prekindergarten (pre-K). More children now have access to high quality early learning programs at public schools including a significant expansion in the accessibility for four-year-olds from economically disadvantaged backgrounds in

being able to attend pre-K. In addition, Maryland's creation of the Early Childhood Accreditation Project has dramatically increased the number of accredited early education programs (center-based and Head Start) and family child care homes.

As Maryland continues with a third wave of education reform efforts, the Race to the Top Early Learning Challenge federal grant, awarded in late 2011, will enable the state to build a seamless pipeline for learning with initiatives for children, birth to eight, and better support the Maryland College and Career-Ready Standards. The tools, resources, and supports are in place so that all children in Maryland have the opportunity to achieve their fullest potential.

The Race to the Top Early Learning Challenge grant includes the following:

- **Local Early Childhood Councils:**
  Twenty-four local councils with representation from early education, health, social services, library, and literacy group, to coordinate services on improving school readiness for all children.

- **Ready for Kindergarten Early Childhood Comprehensive Assessment System:**
  Maryland's Ready for Kindergarten (R4K) Early Childhood Comprehensive Assessment System features a set of linked systems and professional development supports to measure, monitor, and improve the school readiness of all children. R4K includes the Kindergarten Readiness Assessment (KRA) and formative assessments and learning profiles, known as the Early Learning Assessment.

- **Maryland Kindergarten Readiness Assessment (KRA):**
  The KRA[2] is the cornerstone of the Early Childhood Comprehensive Assessment System. Each fall kindergarten teachers administer the KRA to children during the first six to eight weeks of school. It measures the school readiness skills of incoming kindergarteners and is based on select skills around the sixty-three month benchmark on the developmental learning continuum.

- **Maryland Excellence in Early Learning and School Age Care (Maryland EXCELS):**
  Maryland EXCELS is a voluntary tiered Quality Rating and Improvement System (QRIS) that awards ratings to family providers, center-based and public school child care programs, and school age before and after school programs that meet increasingly higher standards of quality in key areas.

- **Quality Capacity Building:**
  The expansion of models of excellence to the attendance areas of Title I schools with the establishment of two Community Hubs to provide and coordinate existing services with families, the creation of *Preschool for All* sites, the expansion of Judy Centers, and mentoring for programs serving children with special needs.

- **Child Development Innovations:**
  A set of initiatives that addresses the behavioral needs of children through a coherent set of early intervention and prevention programs, including the training of pediatricians, the testing and recommendation of developmental screening instructions for children birth to five years, and the implementation of the Social and Emotional Foundations for Early Learning (chapter 4).

- **Family Engagement and Support:**
  The Maryland Family Engagement Coalition has created The Early Childhood Family Engagement Framework that includes strategies and training for early learning programs and family organizations. Other initiatives include the creation of Family Advisory Councils in local libraries, expansion of parent-child Learning Parties, Reach Out and Read Project of the American Academy of Pediatrics, and the offering of Raising A Reader program (all in chapter 3).

2 Official term used by the U.S. Department of Education

- **Early Learning Data System:**
  The project enhances the early childhood data system and links it with the Maryland Longitudinal Data System. It will expand the portal with professional development services for early care and education providers including applications for grants and incentives.

- **Promoting Use of Early Learning Standards:**
  The existing early learning standards are aligned with the Maryland College and Career-Ready Standards. The field test implementation of Preschool Science, Technology, Engineering and Math (STEM) program, and the expansion of the VIOLETS language program is part of this initiative. This guide to pedagogy, is also part of this project.

These efforts call attention to the need for a comprehensive approach to education that looks across the developmental continuum and forges connections at every stage. Operating educational programs in isolation, without regard to the relationship to what comes before and what comes after can no longer be the norm. Instead, policymakers, administrators, practitioners, advocates and funders across Maryland are working together to build a seamless system that supports quality education for every child.

With these changes comes recognition that the field is ready for a new type of early childhood guide - one that offers straightforward guidance from the experiences of those working in the field who are knowledgeable about the latest research and apply that to their everyday practices. That is what *Supporting Every Young Learner* aims to do. It is an "easy to access" guide that provides insight into developing quality early learning experiences for children from birth through grade two. Readers may decide to select and focus on a particular chapter as a resource for professional development.

HOW SUPPORTING EVERY YOUNG LEARNER WILL HELP

This guide is intended to:

- Refresh knowledge of early child development and strategies for supporting learning that leads to school readiness and success in the early elementary school years;
- Highlight best practices that can be realistically and appropriately incorporated into programs and classrooms;
- Provide opportunities to reflect on the information and consider how to incorporate concepts into everyday practices;
- Clarify key terms commonly used in the field; and
- Link to additional resources for in-depth or related information.

The primary audience for this guide is the early childhood educator, program director, school administrator, and college or university professor. The following table, Practical Benefits of Supporting Every Young Learner, highlights some of the benefits that audiences will realize as a result of using this guide:

PRACTICAL BENEFITS OF SUPPORTING EVERY YOUNG LEARNER

BENEFITS FOR EARLY CHILDHOOD EDUCATORS
• Become familiar with the components and content of quality early childhood education environments.
• Understand how to provide developmentally appropriate instruction that will address all domains of learning.
• Understand how to create learning experiences that will support all types of learners and children from all backgrounds.
• Know how to create the physical and emotional environment that helps children reach their fullest potential.
• Know how to assess children and how to use findings to shape learning opportunities for individual children.
• Recognize ways to build relationships with families to forge a strong home-school partnership.
• Know where to turn for additional resources and support.

BENEFITS FOR PROGRAM DIRECTORS AND SCHOOL ADMINISTRATORS

- Understand the components of quality early childhood education programs.
- Become familiar with the components of effective instruction in each domain.
- Be provided with inspiration for program improvement.
- Be able to make informed decisions based on knowledge of this pedagogy and the Maryland College and Career-Ready Standards.
- Be able to provide support – through staff coaching and professional development -- to program and classroom educators so they can enhance their practices.
- Understand the value of family and community engagement, and building it into the program at a systems level.
- Know how to build an environment that fosters an appreciation of diversity.

BENEFITS FOR COLLEGE AND UNIVERSITY PROFESSORS

- Understand what to include in early childhood education courses, from child and family development to curriculum design and methods, lesson planning, and assessment.
- Know how to provide pre-service educators with deep knowledge of early learning by the time they come into their first early childhood classroom.
- Know how to prepare early childhood educators to support the learning of children with special needs, English Learners, and gifted and talented students.
- Know how to prepare early childhood educators to engage families effectively in children's learning.

The guide might also be useful for:

- Staff and administrators of child and family serving agencies who want to ensure developmentally appropriate services and programs for young children; and
- Policymakers and other stakeholders that need solid information on child development and early learning to influence policy and funding decisions.

USING THE GUIDE

Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy is designed to be a user-friendly tool that will contribute to enhanced early childhood learning environments for all children. The Guide is available in this print format and online. The online document provides links to additional resources and video clips that explain the content in more depth and through different mediums.

There are recurring tools within each chapter. For example, each chapter has:

- Definitions of commonly used terms;
- Vignettes representative of early childhood educator experiences;
- Stories from families with young children;
- Best practice tips that can spark action;
- Questions to prompt reflection; and
- Resources that provide additional information.

EDUCATORS' VOICES

Brief vignettes representative of early childhood educator experiences are included throughout the guide as **Educators' Voices.** Similarly, there are **Family Voices** that provide family experiences. These vignettes help illustrate how the content translates into effective early learning experiences for children. The following symbols can help guide you to vignettes that most clearly match your educational situation in the **Educators' Voices.** Educators are encouraged to read all vignettes, as the examples can inspire action.

Infant and Toddler Settings:

Prekindergarten and Kindergarten Settings:

First and Second Grade Settings:

Children with Special Needs:

English Language Learners:

We hope that Supporting Every Young Learner will become a trusted resource and go-to guide. This guide can be used differently, depending on need and time available. For example, the guide could be used during:

- **Pre-service**
  College and university staff may use this as a text in their courses as they translate theory and research into direct practice. Program directors and principals might organize a pre-service for new early childhood educators to ensure all staff have a shared understanding of best practices related to family engagement, fostering appreciation of diversity, planning developmentally appropriate experiences, preparing the learning environment, and engaging in assessment.

- **Classroom Planning**
  Early childhood educators and lead teachers may use this regularly as they organize classrooms, plan lessons, and build partnerships with families. They may pick a chapter to read that can reinforce their understanding or spark new ideas, or they may use parts of several chapters to get a feel for how practices are carried out by other early learning educators in the state.

- **Mentoring and Coaching**
  It may become clear to program directors and principals that an early childhood educator may have a need for support in a particular area. When this is the case, this guide can be used in a targeted way to focus on the areas of need. Together the early childhood educator and mentor/coach can look at specific chapters in the guide to review the information and plan for changes that can be made.

- **Supervision, Collaborative Planning, and Reflection**
  Regular supervision, collaborative planning, and opportunities for reflection are needed in every program and school. This guide can become a useful tool for supervisors to answer questions

or teach new skills. Further, supervisors can use it to map out areas for growth for each early childhood educator, work with the staff over time, and take note of changes in practice.

- **Goal Setting**
  The guide could be used each year when the program leadership and staff come together as a professional learning community to review data and set goals for the coming year. If they identify areas of weakness through their data review, they can then use the guide to have a conversation about best practices and what they might do differently in the coming year to yield stronger outcomes for the children.

Why is this called a "Pedagogy Guide?" We define pedagogy as the art and practice of teaching. It requires a well-rounded understanding of children and their development. It also calls for a strong knowledge base of what children should learn and how we can successfully engage them in learning those things they need to learn. The point is not to implement a curriculum but to be accountable for turning every child into a successful learner.

RESOURCES

Bowman, B., Donovan, M.S., & S. Burns, Eds. (2000). *Eager to Learn: Educating Our Preschoolers*. Washington, DC: National Academies Press.

Bredekamp, S. (2011). *Effective Practices in Early Childhood Education: Building a Foundation*. Upper Saddle River, NJ: Pearson.

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Washington, DC: National Academy of Sciences. Executive Summary available at: http://www.nap.edu/catalog/12445.html

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WEB LINKS

Head Start Standards
http://eclkc.ohs.acf.hhs.gov/hslc/standards/Head%20Start%20Requirements

Maryland College and Career-Ready Standards
http://marylandpublicschools.org/MSDE/programs/ccss

Maryland Excellence in Early Learning and School Age Care (EXCELS)
www.marylandexcels.org

Maryland Healthy Beginnings
www.marylandhealthybeginnings.org

Maryland Learning Links
http://www.marylandlearninglinks.org

Maryland Local Early Childhood Councils
http://www.marylandpublicschools.org/MSDE/divisions/child_care/planning

Maryland Race to the Top – Early Learning Challenge
http://www.marylandpublicschools.org/MSDE/divisions/child_care/challenge

Maryland Race to the Top – Kindergarten to Grade 12
http://www.marylandpublicschools.org/MSDE/programs/race_to_the_top

National Association for Family Child Care
http://www.nafcc.org

National Association for the Education of Young Children, Developmentally Appropriate Practice
http://www.naeyc.org/files/naeyc/file/positions/PSDAP.pdf

National Board of Professional Teaching Standards, Early Childhood Generalist Standards, Third Edition
http://www.nbpts.org/sites/default/files/documents/certificates/nbpts-certificate-ec-gen-standards.pdf

CHAPTER 2:
USING KNOWLEDGE OF CHILD DEVELOPMENT TO UNDERSTAND THE WHOLE CHILD

This chapter reviews the different theories of child development and the recent work of brain research on learning. It examines the seven domains of development from the Maryland Early Learning Guidelines, explains the importance of educating the whole child and the forms of play in the context of child development.

◆ Helpful terms ◆ Theories of child development ◆ Neuroscience and models of how the brain works ◆ Domains of development ◆ Learning progressions by domains and ages ◆ Understanding the whole child ◆ Play ◆ Resources and web links ◆

HELPFUL TERMS	
Consistent, Caring Adults	Consistent, caring adults refers to all the adults that interact with the child to support early learning. This includes the family as well as early childhood educators.
Developmental Learning Progressions	The Guiding Principles of Learning Progressions (LP): 1) are developed and refined using available research and evidence; 2) have clear binding constructs that articulate the essential core concepts and processes of a discipline, domain or "big idea;" 3) articulate movement toward increased understanding (broader, deeper, more sophisticated understanding); and 4) are compatible with well-designed and aligned assessments
Developmental Milestone	A developmental milestone is an indicator of growth that is achieved by most children by a certain age and involves physical, social, emotional, cognitive and language skills.
Domains of Development	Domains of development in the Maryland Early Learning Standards[3] are: social foundations, physical well-being and motor development, language and literacy, mathematics, science, social studies, and the arts.
Educating the Whole Child	Educating the whole child is broadening the focus of a specific domain of development for a child to a perspective of all aspects of development blended together, with an eye toward providing opportunities that will contribute to long- term growth, positive outcomes and building interconnected skills.
Executive Function	Executive functions are a set of processes that all have to do with managing oneself and one's resources to achieve a goal. Skills include time management, organization, creativity, communication, collaboration, critical thinking, persistence and planning.
Realia	Realia are objects and materials from everyday life used as teaching aids.
Self-Regulation	Self-regulation is the ability to adapt one's behavior, emotion and thinking based on the situation. It is an intrinsic (within self) and extrinsic (outside self/experience) process.

3 Maryland Early Learning Standards are comprised of Healthy Beginnings (Birth to 4) and the prekindergarten - grade 2 standards of the Maryland College and Career-Ready Standards.

At no other time in life is development as rapid as it is during the early childhood years. Children are constantly learning and growing in all regards – physically, linguistically, socially, emotionally, mathematically, scientifically, and artistically.

Barely two decades ago, early childhood education was influenced by two strains of psychological theories – developmental and learning theories. Those practitioners that follow developmental theorists tend to frame early education in developmental terms that emphasize free exploration, emergence of concrete concept formation, and basic socialization with peers. Another set of practitioners, namely in school settings, subscribe to the tenets of learning theory such as behaviorism and constructivism. Behaviorism is widely practiced in schools where education is defined to help students build basic mental schema by acquiring knowledge through the use of prior knowledge. While this type of learning is of lower order, it fulfills the main mission of public education to provide for factual knowledge, skill development, and training.

Constructivism, probably the closest to developmental theory, has many of the same principles such as active learning, knowledge building through exploration or experimentation. The teacher's role encompasses both imparting knowledge and guiding the learning process to help the students to "construct" knowledge and apply it to solve academic problems.

Theorists and the recent work in neuroscience have influenced our views on child development and our approach to working with children.

Noted Theorists of Child Development

Mary Ainsworth and John Bowlby: Ainsworth & Bowlby formed the basis of attachment theory. Bowlby conceptualized the theory that a child's tie to the mother and the disruption (separation) plays a major role in the child's development. Ainsworth tested Bowlby's ideas and further developed attachment theory to prove children who have a strong attachment to their caregivers have a secure base as infants to explore the world. Infants know they have a safe place to return, and thus develop, through learning experiences, expectations that their caregivers will be responsive to their needs. These early relationships or attachments with caregivers influence a child's social relationships throughout childhood and adult life.

Erik Erikson: Erikson looked at development across the lifespan. Each of his eight stages of development includes conflicts to be resolved by balancing contrasting extremes (e.g., trust-mistrust) at a given life stage. From infancy to death, all include the ongoing development of ego identity. Ego identity (or sense of individuality) continues to grow and is constantly changing due to new experiences. The formation of identity begins in childhood, is acute during adolescence and continues throughout life. He believed that social experience is formational to the ego experience, and that conflict can help propel growth forward. Four of Erikson's stages take place in early childhood (birth to 8): Trust vs. Mistrust; Autonomy vs. Doubt; Initiative vs. Guilt; Industry vs. Inferiority.

Friedrich Froebel: Froebel is credited with recognizing the significance of the child's activity in learning. He coined the word kindergarten and

founded the Play and Activity Institute focusing on preschool child education. Froebel designed and manufactured play materials, known as Froebel's Gifts, to advocate the importance of free play. He believed play, through holding, examining and manipulating well-designed (pedagogical) objects, provides children a "mirror of life" teaching self-discipline and respect for law and order. His gifts which were blocks (a cube, sphere & cylinder) and six colored worsted balls attached to a string were intended to teach a child to connect to their environment, simultaneously creating a bond between the adult and the child who played together.

Maria Montessori: Maria Montessori believed that children learn through constructivist play, or a discovery model and spontaneous child-directed exploration. She believed that children need independence and freedom within limits for movement and exploration so that they can engage in their own uninterrupted work. As such, Montessori believed that children should be free to learn within a "prepared environment," tailored to children at different ages, and in mixed age groupings. There should be student choice of activity, with materials that promote independence from a prescribed range of options selected and facilitated by the teacher.

Jean Piaget: Piaget considered children to be "little scientists" and said that they are able to construct their knowledge and understanding of their work through their experiences. Piaget tied children's development to their learning. He believed that there are four distinct stages of development: the sensorimotor stage (birth to age two); the preoperational stage (age two to about age seven); the concrete operational stage (age seven to age eleven); and the formal operational stage (adolescence and adulthood). Piaget believed that as children develop, they pass through stages of assimilation when they add new knowledge to their experiences, and accommodation when they are changing or advancing their thinking in light of the new information.

Lev Vygotsky: Like Piaget, Vygotsky believed that children learn through experience. Unlike Piaget, Vygotsky put forth the notion that "learning is a necessary and universal aspect of the process of developing". In other words, he believed that culture shaped cognitive development. Vygotsky placed emphasis on social factors– parents, caregivers, peers, and the culture at large – as the greatest influence on attention, sensation, perception, memory and, eventually, higher order functions. Vygotsky believed cognitive function and intellectual adaption to be socially and culturally determined until children developed their own "mental tools". Vygotsky believed that the role of educators is to provide scaffolded learning experiences for students that are within their zones of proximal development, thereby encouraging and advancing their individual learning.

Neuroscience – A New Paradigm of How Children Learn Best

In 2001, The Framework Institute began researching our cultural perspective on early childhood development and subsequently began developing messages on the core scientific story of early childhood development. In 2009, after extensive research, The Framework Institute established common values of early childhood education and so-called Simplifying Models on how to understand and communicate these concepts to diverse audiences.[4]

The Brain Architecture Simplifying Model: The early years of life matter because early experiences affect the architecture of the maturing brain. As it emerges, the quality of that architecture establishes either a sturdy or a fragile foundation for all of the development and behavior that follows --- and getting things right the first time is easier than trying to fix them later. When interpersonal experiences are disruptive, neglectful, abusive, unstable, or otherwise stressful, they increase the

4 http://frameworksinstitute.org/ecd.html

probability of poor outcomes. When a young child experiences excessive stress, chemicals released in the brain damages its developing architecture. Brains are built from the bottom up; skill begets skill. The basic process of brain architecture begins before birth and continues through adulthood. Children who have stable environments, nutritious food, preventative health care and opportunities to explore and learn safely with trusted adults in their environments and communities build strong brains.

Serve and Return Simplifying Model: Scientists now know that the interactive influences of genes and experience shape the developing brain. The active ingredient is the "serve and return" relationships with their parents and other caregivers in their family or community. Like the process of serve and return in games such as tennis and volleyball, young children naturally reach out for interaction through babbling and facial expressions. If adults do not respond by getting in sync and doing the same kind of vocalizing and gesturing back at them, the child's learning process is incomplete. This has negative implications for later learning. When adults respond, the child's learning process grows!

The First Year of Life Simplifying Model: From their first interaction with the world, babies begin to gather information that helps them develop their sense of self and awareness of others. They express comfort and discomfort, learn ways to self-soothe and turn away from distractions. They show interest in other children and adults, and they tend to demonstrate special attachment to the adults who are present in their everyday experiences. At birth, babies can hear and see and these senses develop further during the first year. They listen and demonstrate early communication when they react to a familiar nursery rhyme or coo in response to a caregiver's conversation. They begin to learn and understand language as they are talked to and engage in responsive one-on-one activities with adults. Following objects with their eyes, imitating actions such as a "bye-bye" wave, recognizing that things exist even if not physically present, and realizing that their actions can cause things to happen are all activities during a baby's first year that build cognitive skills. As their physical development matures, babies become increasingly coordinated; they think and work to grab their feet, toes, and objects of interest. Their fine motor skills develop through touching, holding, and later, manipulating objects. The transformation of babies in the first year of life is truly dramatic.

Types of Stress Simplifying Model: Scientists now know that "toxic stress" in early childhood is associated with such things as extreme poverty, abuse, or severe maternal depression and damages the developing brain. It is important to distinguish among three kinds of stress. We do not need to worry about positive stress (which is short-lived stress, like getting immunized). Tolerable stress is made tolerable by the presence of supportive relationships, like a strong family when a loved one dies. But toxic stress lasts longer, lacks consistent supportive relationships, and leads to lifelong problems in learning, and behavior, as well as physical and mental health.

In contrast, children exposed to stress as a result of poverty, violence, abuse, neglect, unstable relationships, or other multiple and complex challenges can experience a toxic environment that threatens brain development. The costs of this "toxic stress" are significant in the short and long term for the child and for society. Children in stressful situations tend to be more anxious, have fewer internal resources to engage in learning, may experience depression, and are often faced with a host of health issues, including cardio-vascular disease and obesity.

The industry already responds vigorously to the new trend. Edutopia, a favorite website (http://www.edutopia.org) among teachers, offers a broad-based set of articles, videos, and brain-based instructional techniques, including those for teachers in K-2.[5]

5 http://www.edutopia.org/brain-based-learning-research-resources

Impact of Neuroscience on Education and Child Development

While much of the core research on child development holds true over time, there is new research that is influencing teaching in the early years. We now know that:

- The brain experiences the most rapid period of development during the early years;
- Early social and emotional development contributes to the architecture of the brain;
- The role families play in supporting the learning of their children makes a critical difference in children's school success;
- Quality early childhood programs have a positive effect on student achievement; and
- To reduce the achievement gap, children need multiple years of quality early learning experiences, coupled with multiple years of quality elementary education, to be school-ready and succeed throughout their formal school experience.

In Maryland, Frank Kros from the Upside Down Organization, has infused neuroscience research with education techniques to create a new philosophy of Transformation Education (Upside Down Organization, 2007). Dedicated to improving the learning and behavior of our children, the organization trains adults by expanding their knowledge to influence the way they lead their organizations. Schools and families benefit from a set of best practices that support brain-based teaching (http://www.upsidedownorganization.org).

CENTER ON THE DEVELOPING CHILD, HARVARD UNIVERSITY

The Center on the Developing Child works to generate, translate and apply knowledge about child development to improve life outcomes for children.

The following three videos by the Center on the Developing Child explain how early experiences influence children's development.

Early Experiences Build Brain Architecture
http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/brain_architecture/

Serve and Return Interaction Shapes Brain Circuitry
http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/

Toxic Stress Derails Healthy Development
http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/toxic_stress/

What Does Development Look Like in the Early Years?

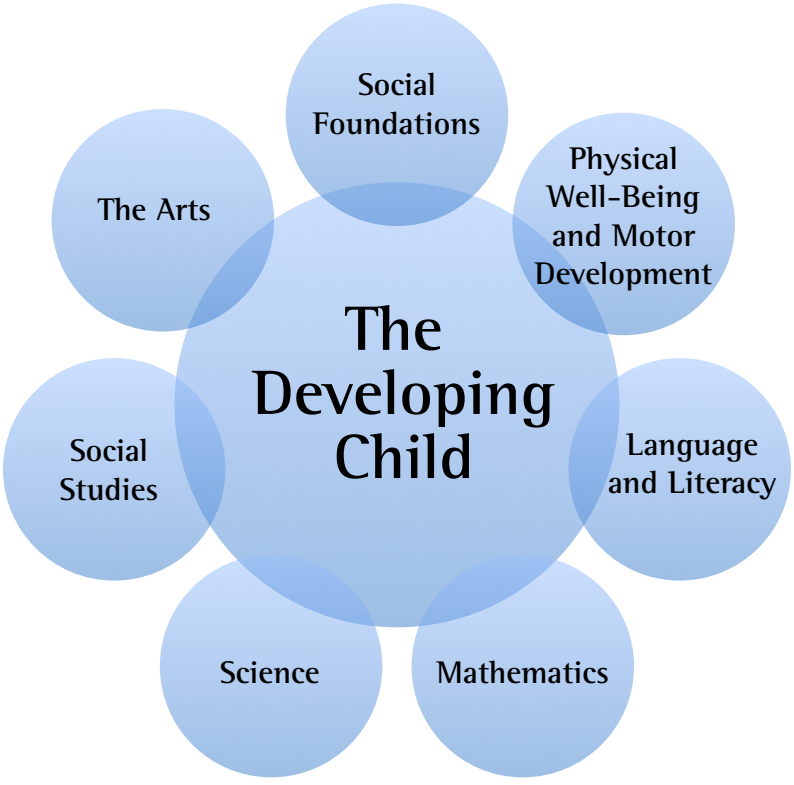
This guide relies on the knowledge of the theorists and neuroscience to advocate a better understanding of what approaches work best for young children and young students when being taught, and to be able to articulate pedagogical (and not just instructional) practices to help students meet success in an environment of more rigorous standards.

Infancy is a time of monumental growth in all areas of development, as described in Maryland Healthy Beginnings (http://www.Marylandhealthybeginnings.org). Children's brains are built through their early experiences. The brain develops more rapidly during the first five years of life than at any other period. It is during these early years that the architecture of the brain is established.

Before children enter formal education as five year olds,[6] most of the child's brain architecture is set. Habits have formed and cognitive processing has either been enhanced or stunted. It takes very astute observers to apply knowledge about brain development and its effects on learning. In contrast to developmental or learning theories, educational neuroscience is empirical in nature, and requires early educators to establish a relationship with each individual learner.

The Domains of Development and Learning

The Maryland Early Learning Standards define the key aspects of development and learning that are the foundation for a child's success in learning. Seven domains, illustrated below, are identified as key areas of development for preschool-aged children. A description of each domain follows the illustration. The domains are used as the basis for the Kindergarten Readiness Assessment.



6 Formal education as defined by Maryland's compulsory education laws

Social foundations include the skills necessary to regulate one's own behavior and emotions, develop healthy relationships with adults and other children, and create a sense of positive personal identity. It focuses on children's approaches to learning including their willingness to initiate, engage, and sustain participation in different learning activities, and their ability to demonstrate control through self-regulation, to remain on task in the face of distractions and to comply with rules, routines and expectations.

Executive function is part of social foundations and includes working memory (i.e., short-term memory), so that children are able to hold information in their mind and recall it when needed, and cognitive flexibility, so that children are able to engage in problem solving and symbolic representation. Inhibitory control, the ability to control one's impulses, is an executive functioning skill.

Working memory and mental flexibility strengthen as children gain, through practice, the ability to wait for their turn, return to interrupted work, or wait for the teacher's attention (and remember why they wanted to talk to their teacher). Early childhood educators continuously support children in building executive function because it influences learning at all stages. According to research, executive function continues to develop and is not fully established until early adulthood, so it is an area that needs continuous attention throughout education.

It is appropriate to emphasize that to be successful in all seven of the domains, executive function and self-regulation are key. Many early childhood experts view social foundations skills as the most important skills that promote all other domains of learning. The Maryland Social Foundations Framework is located in the Appendix.

Physical well-being and motor development includes skills related to muscle control, balance and coordination, as well as body awareness, wellness, rest, exercise, health and nutrition. Children have given opportunities to practice many of these skills by actively participating in daily living and novel learning experiences. Demonstrating safety in the classroom and in the community is part of this. Also included in this domain are adaptive skills such as self-help skills and the tasks that children need to accomplish each day, such as dressing themselves, brushing their teeth, hand-washing and feeding themselves.

Language and literacy includes expressive and receptive language. Expressive language is how children are able to communicate with others and can be verbal (with words) on non-verbal (with sounds and gestures). Expressive language includes writing as one mode of communication and is a critical skill that has clearly defined stages that emerge in the preschool years and require sufficient practice in the lower grades.

Receptive language is how children process and understand what others are saying. Both of these skills grow over time – from cooing to babbling to using words and then sentences; from hearing to knowing to responding – and influence later success in learning to read, write, listen and speak. Further, this domain focuses on building foundational skills such as print concepts, phonemic awareness, phonological awareness, phonics, vocabulary, word recognition, and fluency.

> Language acquisition for learners who speak languages other than English have recently been described by a consortium called World Class Instructional Design and Assessment (WIDA). Educators throughout Maryland are familiar with the WIDA Performance Definitions. The WIDA website is www.wida.us. The following two tables provide the Early English Language Development Performance Definitions – Receptive Language for children from 30 months through 66 months.

Early English Language Development Performance Definitions

Toward the end of each age cluster and given level of English language development, and with sensory and interactive supports, dual language learners will process in English and non-verbally demonstrate understanding of:

HOME LANGUAGE

At all levels of language acquisition, home language and English language development

- influence and reinforce each other; and
- mediate understanding, construction of meaning, and demonstration of knowledge.

	Language Criteria	Ages 2.5-3.5 Years (30-42 mos.)	Ages 3.5-4.5 Years (43-54 mos.)
Level 5 Bridging	**Linguistic Complexity**	• Series of simple sentences related to familiar stories or events • An idea with 1-2 details; 1-step direction related to daily routine	• Series of extended sentences related to familiar stories, learning activities, or events • Related ideas; 2-step directions related to daily routine
	Language Usage	• Short and compound sentences related to daily routine, familiar people, songs, and stories • General and some specific vocabulary words associated with familiar environments and stories	• Compound and some complex sentences related to familiar stories and learning activities • Specific vocabulary words associated with stories, learning activities, and various environments
Level 3 Developing	**Linguistic Complexity**	• Related phrases and simple sentences • An idea with 1 detail	• •Multiple related simple sentences; wh-questions • An idea with 2 details
	Language Usage	• Short sentences related to daily routine, familiar people, songs, and stories • Repetitive phrasal patterns related to daily routine and familiar stories • General vocabulary words related to daily routine and familiar stories	• Short and some compound sentences related to familiar stories and learning activities • Sentence patterns related to familiar stories and learning activities • General and some specific vocabulary related to daily routine, familiar stories, and learning activities
Level 1 Entering	**Linguistic Complexity**	• Words and repetitive phrases related to daily routine • An idea within simple questions or statements related to self, familiar people, or daily routine	• Words and phrases related to daily routine • An idea within simple questions or statements related to familiar environments
	Language Usage	• Repetitive phrases associated with daily routine • Yes/no questions related to self, familiar people, and/or daily routine • Words associated with familiar environments	• Repetitive phrases and simple statements associated with daily routine • Yes/no questions related to self, familiar people, and/or daily routine • Words and expressions associated with familiar environments

At the very beginning stages of English language acquisition, dual language learners typically understand more words than they are able to produce. Children may be non-verbal in English and rely primarily on their home language and/or gestures to communicate their needs, wants, and ideas.

…within sociocultural contexts for language use.

Early English Language Development Performance Definitions

Toward the end of each age cluster and given level of English language development, and with sensory and interactive supports, dual language learners will process in English and non-verbally demonstrate understanding of:

HOME LANGUAGE

At all levels of language acquisition, home language and English language development

- influence and reinforce each other; and
- mediate understanding, construction of meaning, and demonstration of knowledge.

	Language Criteria	Age 4.5-5.5 Years (55-66 Months)
Level 5 Bridging	**Linguistic Complexity**	• Sentences/questions of varying richness and complexity related to familiar stories, learning activities, or events • Expanded related ideas; 2-3 step directions related to daily routine and some novel directions
	Language Usage	• Complex sentences and language patterns related to familiar stories and instructional activities • Specific and some technical vocabulary words associated with various environments and learning activities
Level 3 Developing	**Linguistic Complexity**	• Multiple related extended sentences • Related ideas
	Language Usage	• Compound and some complex sentences related to familiar stories and learning activities • Sentence patterns related to specific learning activities and stories • General and some specific vocabulary words associated with familiar environments and learning activities
Level 1 Entering	**Linguistic Complexity**	• Words and longer phrases related to daily routine and learning activities • An idea within simple questions or statements related to familiar environments
	Language Usage	• Repetitive phrases and simple statements associated with daily routine • Yes/no questions related to self, familiar people, and/or daily routine • Words and expressions associated with familiar environments and learning activities

At the very beginning stages of English language acquisition, dual language learners typically understand more words than they are able to produce. Children may be non-verbal in English and rely primarily on their home language and/or gestures to communicate their needs, wants, and ideas.

…within sociocultural contexts for language use.

Mathematics includes skills related to counting and cardinality, operations and algebraic thinking, numbers and operations in base ten, measurement and data, and geometry. Children learn about numbers, precision and value, and their interaction with each other through number relationships. They also learn about spatial awareness through geometry and measurement.

Science is about children developing scientific thinking skills while exploring the natural and physical world around them. They learn how to ask questions, experiment, apply evidence, reason, draw conclusions and communicate their findings. Children use their curiosity to explore, question, and investigate life, earth and physical science at a developmentally appropriate level.

Social Studies gives children an understanding of their sense of self-identity and how people relate to one another in a society. This includes social structures (rules and the process of rule making), social relationships (family, friends, and community), and economic relationships (the transfer of goods and services). Children discover societies evolve over time, citizenship, and geography. In early childhood, children begin to develop an initial understanding of the different relationships between people and the roles they play in society. They also learn to distinguish between the past, present, and future. They start to make the connection between people and the environment.

The Arts focus on the use of music, dance, visual arts, and theater to express ideas and emotions. The skills in this domain play a role in fostering the learning and development in all other areas of the Maryland Early Learning Standards and the Maryland College and Career-Ready Standards. It is through the arts that children have opportunities to apply skills and knowledge in unique, individual and creative expressions.

The Pace of Development

Development may come in huge bursts, pauses, or a trickle. At times, family members and educators might wonder if a child is regressing or developing appropriately. Leading experts like Dr. T. Berry Brazelton (www.brazeltontouchpoints.org) and others remind us that this is normal. There are universal and predictable periods of progress and developmental milestones, as children transition from simple to more complex skills and knowledge, as well as periods of disorganization and regression. As family members, early childhood educators, and administrators, it is important to know the basics about development to anticipate and respond in ways that honor children where they are and support them as they explore, attempt, and eventually own new skills.

Educators' Voices: Two-year-old Asher always came in happy and ready to play with the other children. One day he arrived with a scowl and was oppositional to everything. Asher refused the sliced apples and carrots at snacktime. He refused to put on his jacket for outside play. His family said they were having the same trouble at home and together, we considered from a developmental perspective what might be going on with him. We know this age is a time when children are craving the opportunity to make their own decisions and to become more independent. We decided to use this as an opportunity to support Asher and his interest in independent decision-making. We asked him, "Asher, would you like carrots, apples or both?" With respect to getting ready for outdoor play, we

asked him, "Asher, would you like to put your coat on yourself or would you like help?" By giving him choices we could accept and offering encouragement for independent thinking. Asher was able to practice decision-making skills and feel independent. In time, as he became more mature and could do more for himself, the smiles returned.

The Continuum of Development: Understanding the developmental characteristics of young learners provides a frame of reference so that early childhood educators can anticipate and plan for a continuum of children's learning. For the youngest children, Maryland Healthy Beginnings (www.marylandhealthybeginnings.org) provides a helpful illustration of the continuum of development. For preschool, kindergarten and the primary grades, the Maryland College and Career-Ready Standards shed important light on the continuum.

Educators' Voices: I have been teaching kindergarten for many years and what I love most is that first month of school when I am getting to know each child. It is a time when I identify student skills on the developmental continuum – whether they are more secure in one area, and less secure in another. For example, a child may be more familiar with numbers and less confident with their knowledge of letters and sounds. I learn about their strengths, challenges, and their social foundations skills. I know where I need to get them by the end of kindergarten so that they are ready for first grade, but I recognize the path might be different for each child.

TIPS FOR EARLY CHILDHOOD EDUCATORS

Using Knowledge about Child Development to Support the Whole Child

This chart uses a sample indicator for each domain and tracks the indicator over time to illustrate the progression in learning. There are many other indicators that relate to each domain of development. Maryland Healthy Beginnings and the Maryland College and Career-Ready Curriculum are essential resources that provide additional depth about development across the domains, ages, and grade spans over time.

Domain of Development	Infancy and Toddlerhood Ages 0-3	Preschool Ages 3-5	Primary Grades Ages 6-8
Social Foundations	Identifies basic feelings and expresses emotions through non-verbal cues, identifies self in mirror, shows preferences laughs/frowns	Communicates emotions verbally and non-verbally, and responds to educators' directions and prompts	Uses "I" statements to express feelings, proposes solutions and accepts conflict resolution strategies, works collaboratively to develop rules/games, increases wait time, increases focus on own work, enjoys success

Physical Well-being and Motor Development	Increases balance and coordination; sitting, crawling, cruising, walking, holding, grasping, pulling, riding toys	Demonstrates some level of self-care and behavior. Follows basic safety rules with prompting. Moves with stability, coordinating movements of locomotor tasks, engages in creative movement, identifies benefits and characteristics of physical activity, participates in activities that improve muscular strength and flexibility	Initiates self-care, engages in positive behavior. Follows basic safety rules. Uses the principles of exercise physiology and biomechanics to design/adhere to purposeful physical activity for their fitness and to gain health and cognitive/academic benefits. Develops aerobic, fitness, muscular strength & flexibility through participation & cognitive understanding
Language and Literacy	Recognizes and reacts to the sounds of language, begins to use common speech, scribbles, sings along with familiar songs, building vocabulary	Discriminates and produces rhyming words, blend sounds and syllables, match familiar consonant sounds to letters (e.g., m, b, f), acquire new words, recognize writing conveys meaning, express ideas using symbols and/or words	Decodes text at grade level, acquires new vocabulary and content specific vocabulary, composes oral, written and visual presentations that express personal ideas, informs or persuades. Cites from text, Listens and attends to speakers and engages in relevant questions and answers
Mathematics	Begins to explore concepts of number, size and quantity. Explores basic shapes, explores math concepts during bath time and water play	Shows interest in math vocabulary (e.g., big/little), counting, quantity, number names, 1:1 matching and measuring. Builds with blocks, matches and compares objects by color, shape and size. Familiar with number combinations 0–5	Works with multi-digit numbers and understands value, place value and relationships of numbers through operations and algebraic thinking, numbers and operations in base ten, measurement and data, geometry. Engages in the eight universal mathematical practices of the Common Core State Standards (CCSS)

Science	Uses senses to investigate the world, seeks information through observation, exploration, and investigation	Uses a magnifying glass, balance scale, sorting trays and observation to explore scientific thinking and methods, asks "why" questions, brings home objects found on a walk	Plans and conducts simple investigations and communicates the results on natural phenomena that are easy to observe (e.g., weather, life cycles of plants and animals)
Social Studies	Recognizes relationship of self to the family	Recognizes relationship of self to family and other children in the early childhood program. Uses rules and routines	At a developmentally appropriate level, investigates the status and democratic principles of people (e.g., how rules are made), symbols of the Nation, geography, economics (e.g., function of currency, history and current events)
The Arts	Participates in rhythmic movement to music, sings along to familiar tunes, explores rhythm	Perceives, performs and responds to core arts curriculum including: dance, music, theatre (dramatic play) and visual arts through cultural and social context, creative expression and production and aesthetics/critiques	Perceives, performs and responds to core arts curriculum including: dance genres and cultures, music (instrument/voice), theatre (story/characters in literature) and visual arts (color, line, shape, texture, form and space) through cultural and social context, creative expression, production and aesthetics/critiques

What Do We Mean by The Whole Child?

Understanding the whole child – taking all of the domains of development into consideration, adding temperament, personality, interests, family culture and wellness into the unique profile of a child's knowledge, skills and attitudes toward life and learning is taking a whole child view. This is important when considering the development of a child because looking at a specific domain informs what to teach and how to build-up individual skills in a child. Looking at the whole child informs on how to teach; approaches, differentiation, pace and ways for a child to demonstrate understanding that give a youngster the opportunity to express their abilities and interests as individuals. When the adults in a child's life are able to take a comprehensive view of the whole child, they are able to incorporate unique strategies that support a child's strengths and minimize challenges for optimal growth and development. Early learning educators must also be aware of the child's family, their community and their culture.

Educators' Voices: Mi Hi was in my prekindergarten class and spoke only Korean. She was not progressing well and seldom interacted with other children. I spoke with the family and asked if there were things that we could do together to motivate Mi Hi. We brainstormed ways we could make her feel more comfortable and identified objects from home that could be included into the classroom environment so that it would be more welcoming for Mi Hi. The parents said she loved her Korean children's books. She started bringing in the books and sharing them with other children, and soon her ability to engage with others started to improve. As Mi Hi grew more comfortable in the setting, her development in all domains began to blossom.

Educators' Voices: When I asked my second grade class to write a paragraph about what they would do if they won a $100 prize, I was surprised by some of the answers. Many of the children said that they would buy a video game, a toy, or tickets to a sporting event. However, several children said that they would pay the rent, buy food for their family, or pay a utility bill. As the children shared their paragraphs with me, I learned that they worry about these issues at school. They also worry that they will not have money for school supplies or class activities since money in their families goes to more immediate needs. It caused me to understand that children who are growing up in conditions of poverty are concerned about survival and adult issues. I came to realize that school is a place of comfort and safety for many children and that I can encourage and reassure them by helping them become able learners and, ultimately, be college and career ready.

Temperament: In general, temperament refers to aspects of an individual's personality. As early childhood educators, we notice how some children tell us everything they are feeling, with a sense of intensity, and others seem to be on an even keel. In our work, we see some children's initial response to new people, places, books and clothes as excitement, while other children exhibit few changes in their temperament. For the layman, there are three broad categories for temperament: easy going, slow to warm-up and difficult. Although it is common for a child to move through all three classifications during the course of their day, years and childhood, one category tends to be more prevalent, over time and reveals the child's personality. When working with young children it is important to consider the child's behavior and responses to situations with a view of trends; over time, environments, peer groups and caregivers. It is important to resist the categorizing of a child based on one instance or circumstance.

When considering a child's temperament, the following criteria are often explored: activity level, distractibility, persistence, adaptability, approach/withdrawal, intensity, rhythmicity/regularity (biological), sensitivity to stimuli, quality of mood and emotional sensitivity. Each of these characteristics contribute to a child's temperament and can change over time based on environmental and biological factors. Together these elements form the temperament of a person.

Finally, the adults in a child's life also have different temperaments. When looking at the whole child, it can be informative to consider the temperament of the adults in the child's life. Difficult children who are cared for by easy-going caregivers may experience day-to-day routines with a perspective that is different from a slow to warm-up caregiver taking care of a slow to warm-up child. Imagine the life of a child whose temperament is different from their parent and their teacher. Thus, that child experiences a range of personalities of the adults to whom they depend on for daily living. Although temperament is shaped through experiences, elements of a child's personality are present at birth. By being aware of all of the varied temperaments in the early childhood environment and home, adults in children's lives can plan appropriately for transitions and learning opportunities.

How Does Play Support Early Learning?

At its most basic notion, play is the work of childhood. Developmental theorists highlight the importance of play for the development of young children because play is the practice of learning through experiments and exploring new ideas. They are not referring to random play, but an intentional approach to allowing children to construct meaning from the activities in which they are engaged. Numerous theorists emphasized that children learn through play and that environments where children construct learning, through experiences with real objects, provides a solid foundation for future development. Further study reveals that children who lack opportunities for play, struggle with the skills of executive function and academic production in middle childhood and adolescence. The importance of play and its impact on learning is explained in depth in Chapter 5.

Playful learning takes many forms and looks different as children grow older. Consider these forms of play for the prekindergarten age child taken from the Connecticut Guide to Early Childhood Program Development (2007):

FORMS OF PLAYFUL LEARNING	
Solitary Play	Playing alone with materials and ideas.
Parallel Play	Playing side by side, sometimes mirroring each other, sometimes doing very different activities with the same materials.
Cooperative Play	Playing in collaboration with another or a group with a common goal or problem to solve, sharing ideas, materials, and roles.

Free Self-Directed Play	Playing with materials or ideas, alone or with others, with adult support only if required by participants in the activity.
Sensory-Motor Play	Exploring the properties of objects using both senses and physical activity, e.g. Banging or rolling clay, pouring sand or water, or making sculptures from paper-mache.
Constructive Play	Making structures and creations using various objects and materials that can be assembled in an infinite variety of ways, (e.g., building a garage for toy cars and trucks out of a set of wooden blocks or Legos).
Dramatic Play	Assuming pretend roles, imitating and acting out situations about feelings, events, people, and animals, (e.g., using language and gestures while pretending to be a father, a salesperson in a store, or a doctor in the hospital).
Symbolic Play	Representing concrete objects, actions, and events mentally or symbolically. As children mature, they are able to use objects such as blocks or cardboard boxes that are increasingly less realistic in form and function from the object the child wishes to symbolize. Symbolic play incorporates constructive and dramatic play.
Gross-Motor Play	Engaging in activities that require children to use their large muscles. Most typically outside, this type of play may involve dramatic play within the running, climbing, and/or riding of vehicles.

Skilled early childhood educators know that play-based learning is essential. They intentionally facilitate learning through play by:

- Providing materials including real world objects;
- Provoking interest;
- Modeling ways to engage in play and social interactions during play;
- Introducing new vocabulary and content information during center play;
- Encouraging exploration and inquiry by supporting new ideas; and
- Providing time for thought and creativity.

FAMILY VOICES

My grandson, Brendan, did not want to go to his prekindergarten class. When he did go, I often got calls that he was having challenges with other children. The teacher was friendly, and she wanted to hear my ideas about what could be done to help Brendan. I did not know what to do, nor did I know what to ask for.

Part way through the year, the program director told me that they would be offering a special summer intervention program for a small group of children and that she thought Brendan would benefit from it. He was not thrilled about going at first, but I took him anyway. They worked with him on basics -- colors, shapes, counting, and reading -- yet there was a lot of time to play. I did not understand why there was so much playtime, but they explained that play was a way for him to develop social foundation skills.

Brendan finally made a friend after a few weeks and wanted to continue going to the program. They sent home books and activities for me to do with him, and the teachers helped out by showing me first what to do so that I could try it. They explained what they were doing in the classroom to work on his outbursts, so that I could try similar strategies at home. I tried having a regular time each day for looking at books in a quiet place with soft pillows, talking with him rather than yelling, and letting him know 10 minutes before we needed to leave the house so that he had time to finish a task and get ready. Things at home got a whole lot easier for me when I tried these strategies.

When the summer ended, Brendan seemed so much happier!

TAKE TIME FOR SELF-REFLECTION...

What do I know about the domains of child development? What more do I want to know? Who should I ask or where should I go to get information that will help me better understand the children with whom I work?

How do I balance teaching specific tasks to promote individual child development with working to help all children connect to developmental progressions across the domains? What are some examples of this? How else could I try to make these connections?

How do I use Universal Design for Learning when I plan my lessons or organize the area and materials for my children? What am I doing to make sure that I am teaching in ways that respect the learning needs of each child? Are there times when this is easier said than done? What makes this difficult?

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WEB LINKS

Alliance for Childhood
http://www.allianceforchildhood.org

BrazeltonTouchpoints Center
http://www.brazeltontouchpoints.org

Edutopia
http://www.edutopia.org

Center on the Developing Child, Harvard University
http://developingchild.harvard.edu

Frameworks Institute
http://www.frameworksinstitute.org/assets/files/ECD/ecd_message_brief_2009.pdf

Head Start Child Development Framework
http://eclkc.ohs.acf.hhs.gov/hslc/sr/approach/cdelf

Maryland Common Core State Curriculum (Maryland Early Learning Standards for Prekindergarten)
http://www.mdk12.org/instruction/curriculum/index.html

Maryland Healthy Beginnings (Maryland Early Learning Standards, Birth to 4
http://www.marylandhealthybeginnings.org

Maryland Social Foundations Framework (Maryland Early Learning Standards)
http://www.msde.maryland.gov/MSDE/divisions/child_care/early_learning/docs/SocialFoundationsFramework080113.pdf

National Association for the Education of Young Children
http://www.naeyc.org

Ready at Five
http://www.readyatfive.org

Upside Down Organization
http://www.upsidedownorganization.org

World Class Instructional Design and Assessment (WIDA)
http://www.wida.us

ZERO TO THREE
http://www.zerotothree.org

CHAPTER 3: ENGAGING FAMILIES AND COMMUNITIES

This chapter highlights the Maryland Early Childhood Engagement Framework and the differences between family involvement and family engagement. It offers strategies for engaging families and communities, and research on successful family engagement practices. It shares a multitude of programs in Maryland that support families.

◆ Helpful terms ◆ What is family engagement? ◆ Early Childhood Family Engagement Network ◆ Differences between family involvement and family engagement ◆ Research on family engagement programs ◆ Engaging families in children's learning ◆ Examples of Evidence-Based Family Engagement Programs ◆ What is community engagement? ◆ Resources and web links ◆

HELPFUL TERMS	
Community	Community refers to a group of people with a common interest living in a particular area.
Culture	Culture is the characteristics of a particular group of people, defined by everything from language, religion, cuisine, social habits, music, and arts.
Diversity	Diversity refers to qualities that are different from our own. Dimensions of diversity include, but are not limited to: age, ethnicity, gender, gender identify, physical abilities/qualities, race, sexual orientation, educational background, parental status, and religious beliefs.
Engagement	Engagement is being meaningfully involved in an activity that requires discourse and collaboration.
Family	Family includes those adults in a child's life who provide the primary care for the child day in and day out. Family may include parents, grandparents, foster or adoptive parents, guardians, or other kin.
Reciprocal Relationship	A reciprocal relationship is one in which there is give and take among all those involved. Thus, one person is not receiving all the benefits, or having more say in the direction of decisions.
Systemic family and community engagement	Systemic family and community engagement means that engagement is anchored in leadership priorities, program management, continuous improvement systems, and staff development.

The early learning years are the most natural time to engage families in their children's learning. New families are curious about what they can do to ensure that their children have a solid start in life. The first word, the first step, the first handmade painting, the first read-aloud book, the first science project and classroom performance – all of these experiences bring about feelings of joy, pride, and accomplishment for families of young children.

Early childhood educators have an important role to play in supporting the bond between the family and child. They can do so by helping families see the development unfold, and making sure the family members, who are the child's consistent, caring adults understand the role they play in their child's learning and development. Early childhood educators also play a role in motivating the community to care, to invest in the education of young children, and to support positive opportunities for families.

In fact, reports by Tony Bryk (2010), President for the Carnegie Foundation for the Advancement of Teaching, and others, point to family and community engagement as one of five essential elements of successful schools. Engagement yields:

- **Children** ready for school;
- **Families** engaged as first teachers and lifelong advocates for their children;
- **Home, early childhood programs**, and schools providing richer environments for learning; and
- **Communities** offering more support for the next generation and modeling good citizenship.

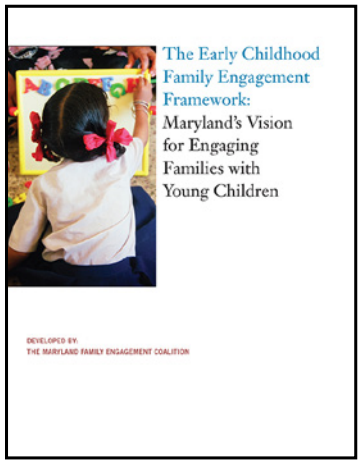
What is Family Engagement?

The idea of partnering with families is not new. For years, early learning educators have sought ways to involve families in programs. They have organized family visitation days, back-to-school nights, and special speakers, and asked families to step up to help with fundraising and other projects. These are all examples of family involvement.

Family engagement is different. It is the next step -- one that represents a more active partnership between home and school for the benefit of child outcomes and quality programs. Family engagement is about early childhood educators and families working together in intentional and reciprocal ways to support quality learning experiences.

The Early Childhood Family Engagement Framework

The Early Childhood Family Engagement Framework: Maryland's Vision for Engaging Families with Young Children was developed by the Maryland Family Engagement Coalition and approved by the State Advisory Early Childhood Council on Education and Care as well as the Maryland State Board of Education (2013).



Maryland's Framework is modeled after the Head Start Parent, Family and Community Engagement Framework published by the Office of Head Start at the U.S. Department of Health and Human Services, and found in the Announcements portal at http://marylandpublicschools.org/MSDE/divisions/child_care. The following resources were used in developing the Framework:

- The Head Start Parent, Family and Community Engagement Framework -- http://eclkc.ohs.acf.hhs.gov/hslc/standards/IMs/2011/pfce-framework.pdf
- Bringing the Head Start Parent, Family and Community Engagement Framework to Your Program: Beginning a Self-Assessment -- http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/ncpfce-assessment-101411.pdf
- Using the Head Start Parent, Family and Community Engagement Framework in Your Program: Digital Markers of Progress -- http://eclkc.ohs.acf.hhs.gov/dmop
- Putting the Head Start Parent, Family and Community Engagement Framework to Work

in Your Program: Integrating Strategies for ProgramProgress, Part I -- http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/integrated-strategies-for-program-progress-ppce.pdf

- Integrating Strategies for Program Progress, Part II -- http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/center/IntegratingStrat.htm

The purpose of the Framework is to:

- Recognize the importance of family engagement as a core component of early care and education.
- Put forth a set of common goals for family engagement across the early childhood system and within individual early care and education programs.

Offer family engagement strategies for early care and education providers and identify resources that support the implementation of those strategies.

Goals of the Family Engagement Framework

- Promote family well-being.
- Promote positive parent-child relationships.
- Support families as lifelong educators of their children.
- Support the educational aspirations of parents and families.
- Support families through the care and education transitions of early childhood.
- Connect families to their peers and to the community.
- Support the development of families as leaders and child advocates.

The Framework defines family engagement as:

- A shared responsibility in which programs are committed to engaging families in meaningful and culturally respectful ways, and families are committed to actively supporting their children's learning and development;
- Respectful of all families through honoring their traditions, cultures, and values, and by understanding that even when challenged by adversity, all families are capable and culturally competent partners in their children's development;
- Grounded in positive, ongoing goal-oriented reciprocal relationships between educators and families, where both contribute and both benefit from a level playing field;
- Systemically woven into all parts of the learning community from program leadership to professional development, program environment, and teaching and learning practices, so that all staff and all aspects of the learning community value and reflect the importance of family engagement;
- Continuous across a child's educational experiences, spanning from early learning programs through high school graduation, with after-school and community programs mixed in along the way; and
- Developmental and grows over time, meeting families where they are by providing opportunities and resources to help them move forward, both in their role as their child's first teacher and partner with the school, and in uplifting their own family well-being.

Differences Between Family Involvement and Family Engagement

The differences between the involvement of parents and the engagement of families are not a stylistic one. Parent involvement policies, which shaped

publicly funded programs such as Head Start and Title 1 schools for decades, are slowly giving way to a stronger focus on collaboration between the early education or school program and the families benefitting from these programs. In short, there are less policies and more relationship building.

Parent Involvement Becomes Family Engagement

PARENT INVOLVEMENT	FAMILY ENGAGEMENT
Program/school leadership develops a statement on home-school partnership.	Families and program/school leadership come together to develop a statement on family engagement, define goals for the year related to the statement, brainstorm activities/events that can be implemented to achieve the goals, create a work plan, and form a group of family members and school representatives to carry out the work, including additional families along the way. Together, families and program/school leadership reflect on what is working and what needs to be changed to further grow family engagement.
Parents participate in program/school events and activities offered by the program/school.	Families -- in partnership with early childhood educators and program leadership – co-create opportunities for families to support their children's learning.
Parents attend parent-teacher conferences where they receive reports about their child's progress.	Early childhood educator's visit one-on-one with families to get to know the child and families, inquire about the goals the family has for the child, and develop a portfolio that travels between home and program at key intervals to update and record milestones. Families also participate in parent-teacher conferences, where they both receive and share information about their child and strategies for how any challenges will be addressed both by home and program.
A designated staff person is assigned as the parent-liaison and is responsible for outreach to parents.	All staff are trained in family engagement strategies and are provided with support and guidance so they can most effectively engage families in ways that benefit the child, family, and the program/school.
Programs and schools are primary consumers of data on children.	Families are regular consumers of data about their children and receive information for what they can do to support learning as a result of the data.

Educators' Voices: I have a special education prekindergarten class where all of my students have severe language delays or are non-verbal communicators. In the past, when parents asked their child, "What did you do in school today?" they often were not able to obtain an answer. To attempt to remedy this, I have created a secure and private classroom website through Google Blogger after gaining parental consent, to which each parent has her or his own login. On the website, I post pictures, themes, activity ideas, reminders, helpful websites, and parent resources. I usually post once or twice a week. Now parents have all of our classroom information at home. They can show their children the pictures and construct a conversation based on the visuals and information they get from the website.

Educators' Voices: I have been the principal of our elementary school for fifteen years. Recently a friend who is a Head Start director returned from a workshop on the new Head Start Parent, Family and Community Engagement Framework, and shared what she had learned about the differences between family involvement and family engagement. Back-to-school night was coming up, so I decided to try out the Head Start family engagement framework and see if it would make a difference in attendance. I invited Brandon – a natural parent leader -- to join me in re-thinking the "nuts and bolts" of back-to-school night. He recruited a group of parents to brainstorm ideas on making back-to-school night a more meaningful and desirable event. Parent suggestions included having teachers model how to read to children and sharing new techniques for teaching math. Brandon and I took these ideas and next met with the teachers to help them structure the content for the evening. The group of parents met two more times to develop an outreach campaign for advertising back-to-school night. More than 60 percent of parents came to back-to-school night, much better than the 10 percent that typically come. It was a family engagement strategy that clearly pays off.

Sometimes families might have a difficult time engaging. The skilled early childhood educator never blames families for lack of engagement, but rather finds ways to work with the families that matches their interests and availability of time. The difficulty may stem not from the parent but the provider's mismatched approach. In some instances, the educator reaching out and inviting the families into the program will work; in other instances, creating a "buddy-program" for parents might help to bolster engagement among those that seem hard-to-reach.

Educators' Voices: We had a difficult time engaging fathers in our prekindergarten program. I reached out to one dad who regularly dropped his son off each morning and asked him what he thought we could do to help fathers be more connected with the program. He suggested that if we gave dads a specific project they might show up (e.g., cleaning up the playground, creating a gardening plot). A few days later, he came to me and said that he would talk with a few fathers and that they wanted to weed the playground area the coming weekend. That weeding project then turned into a commitment to building a raised planter box so that the children could have a garden. The group of dads worked hard, and their enthusiasm caught on with other parents. Not only did the dads step up their engagement with the program, they were seen interacting with their children more – showing them the work that they did and explaining about the plants that they could grow.

Educators' Voices: The children in my first grade class take a folder home each Friday with a class letter from me, samples of their work from the week, and any other information that parents need to review (e.g., an order form for school photos, field trip permission slips). I found that a few students always came to school on Monday with the folder untouched. I met with the room parents and asked if they could help with this matter. The room parents decided to divide the class list amongst them and call each home on Saturday mornings to check in with the parents and

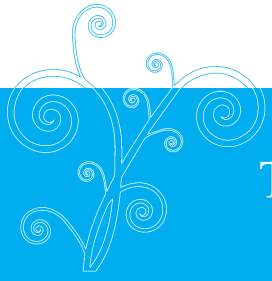
remind them to review the folder. They also used it as a time to share any other news that they thought the parents would want to hear, which might be a hook for engaging them more in the school. After a month of regular Saturday morning calls, I realized that most of the families were now going through the folder during the weekend, and some families were even using the folder to send me notes and tidbits related to their children's activities at home. That parent-to-parent strategy really worked.

Research on Family Engagement Programs

Research on successful family engagement programs has identified three common characteristics: opportunities for parent-child bonding, a focus on recruitment and retention, and a staff training component to work with families and implementing the program effectively (Caspe & Lopez, 2006). Each of these characteristics should be considered by anyone intending to increase family engagement.

Programs that provide parent-child bonding time do so through activities such as scheduled play activities, eating meals together or setting aside time for parent-child talking sessions to strengthen parenting skills and family relationships.

A focus on family recruitment and retention impacts the success of a program. Scheduling face-to-face visits with flexible hours, providing transportation and child care, and having staff members that are representative of the culture of the families being served demonstrates a commitment and sensitivity to other cultures in ensuring families are valued and respected.



TIPS FOR EARLY CHILDHOOD EDUCATORS

STRATEGIES THAT ENCOURAGE ENGAGEMENT

- Send materials home with tips for families to support learning at home.
- Make sure the language is parent friendly.
- Invite families into the program/classroom to help with learning projects, and give them specific tasks so that they can be part of the learning/teaching experience.
- Survey families at the beginning of the year to find out the types of events that would be fun for their family, and the information they may want/need.
- Based on the survey, gather a group of family members and make plans for the program/school to work with families to co-create events of special interest, making sure that families take an active role in the planning and implementation.
- With family guidance, develop a monthly calendar of events that highlight adult and family-child opportunities at school, as well as in the community. Some Judy Centers and school districts already have parent guides/calendars, so first see what is available and then determine with parents if something additional is needed.

Staff training is frequently the linchpin in operating a successful program. Training should include time for staff to reflect on their attitudes and beliefs of the families. The empathy and dedication displayed by the staff is often the litmus test for a family's decision on whether to continue to participate in a program.

Evaluation and feedback from families is an important element of successful programs. Caspe and Lopez have identified three steps that successful programs can use to evaluate their effectiveness:

- **Measuring Participation and Attendance** – Families that attended more events are more likely to improve their parenting skills. Identifying families as joiners and those that have limited response will enable the staff to determine how to best recruit and retain participants. This avoids over-recruiting families that were labeled as joiners and instead devote more time for families needing extensive recruiting efforts.
- **Gathering Baseline Data** – Collecting family data at the beginning of the program allows staff to identify roadblocks or strengths for families that determines their probability of completing the program successfully. A family's level of functioning (e.g., employment, stress, health) is important for deciding what other services are needed for them to remain in the program.
- **Surveying the Needs and Satisfaction of Families** – Ongoing surveys provide important feedback and allows the staff to tailor the type of activities that are provided to families and to make adjustments based on the family's needs and level of satisfaction.

While there are many things that early childhood educators can do to bolster family engagement in children's learning, there is a significant role that program leadership should play to set the tone and create the environment for family engagement to take root. Knowing the research on the characteristics and evaluation practices of successful family engagement programs can be helpful as educators seek to develop or choose initiatives to engage their families. A systemic approach where family engagement values and principles are woven into every aspect of the school or early education program –leadership, continuous improvement, staffing, professional development and budgeting – has a greater likelihood of being effective and successful.

Engaging Families in Children's Learning

The opportunities for engaging families are endless. While early childhood educators can come up with a host of strategies, they should keep in mind that engagement is a reciprocal partnership, and should involve families in the development of ideas and strategies as well. Effective family engagement strategies create a culture of high expectations in programs where family members support learning at home and monitor their children's performance. They advocate for their children and are active in guiding their education.

Educators' Voices: Our Title I elementary school has a backpack buddy program that helps to meet the basic needs of our students. The program started several years ago when our principal reached out to her church and

shared with the congregation her concern that the children did not eat well over the weekend. From this grew our backpack buddy program. Volunteers partner with a student and, every Friday, the student receives a backpack filled with foods for the weekend – such as peanut butter sandwiches, fruit, carrots, and milk boxes. Letters are passed back and forth between the backpack buddies. During the holidays, the volunteers provide food baskets for the families and some toys during the winter holidays too. Many of the same volunteers help out in the school during the week. The children come to know that a network of caring adults in their community are there to support them.

Educators' Voices: Our small rural community on the Maryland Eastern Shore, where families have lived for generations, enjoys a very strong commitment to early childhood. Grandparents and great-grandparents together formed a network to support our local Judy Center. They provide books and materials and turn out to volunteer for special events at the school they once attended many, many years ago. These adults care deeply about the young children in their family and community, and are committed to doing what they can to see success for the next generation.

TIPS FOR EARLY CHILDHOOD EDUCATORS

BUILDING RELATIONSHIPS WITH FAMILIES

- Make sure families understand that they are respected as the experts on their children.
- Ask families about their hopes/dreams/goals for their children. Ask them if they have concerns about their children's development, listen to their answers and ask if they have ideas about what we can do. Set goals, and talk about how the family and the program can work together to achieve the goals.
- Start and end a conversation by sharing something positive about the children. Observe and comment on the way in which the children recognize, engage, and initiate responses with their family members.
- Communicate frequently with families, not just during formal conferences. Use drop-off/pick-up times to check in. Send notes home via backpack, journal, email, and text or call. Communication should not just be one-way or only about bad news. Make sure families have time to share with you too, and that you carefully listen.
- Offer parent-teacher conferences at flexible times and convenient locations so that families can more easily participate.
- Offer translation services, or partner with community organizations that can support families with translation, when families and educators speak different languages.
- Post bilingual signs so that families are able to easily navigate the environment.

Examples of Evidence-Based Family Engagement Programs

Family engagement strategies should be securely embedded in the values and operation of early learning programs. It often helps to have specific programs that target family engagement with a focus on comprehensive family support, early literacy or home visiting. Within Maryland, the Judy Centers represent a model program.

JUDY CENTERS: FAMILY EDUCATION CENTERS

In honor of his late wife and her commitment to young children and families, Congressman Steny Hoyer lobbied the Maryland legislature to create Judith P. Hoyer Early Child Care and Family Education Centers, now fondly called "Judy Centers." Judy Centers provide a central location for early childhood education and family support services for families with children birth through kindergarten. Currently, there are twenty-five Judy Centers located at or near Title I schools, serving about 12,000 children birth through kindergarten each year. Judy Centers represent a much-desired model of community engagement in early learning. They effectively link early childhood with public schools and an array of community-based agencies, organizations, and businesses. Through the Judy Center model, families are able to access – either directly at the Judy Center or nearby – services such as child care, early intervention, parenting classes, health care, adult education and family literacy. For more information, visit: http://www.msde.maryland.gov/MSDE/divisions/child_care/early_learning/Judy.htm

Comprehensive Family Support Programs

- **Family Support Centers.** Operated by Maryland Family Network, a state-coordinating entity, the network of family support centers combines parent-child activities, adult education and job readiness, to support low-income families with young children. The Family Support Centers incorporate Early Head Start and Community Hubs to help families navigate access to services while working toward their own life goals. For more information visit: http://www.friendsofthefamily.org

- **Head Start.** Maryland has nineteen Head Start grantees, including Early Head Start, that provide comprehensive early childhood education and health services. Head Start programs follow the program standards that are required by the U.S. Department of Health and Human Services. For more information visit: http://www.md-hsa.org

- **Abriendo Puertas/Opening Doors.** Abriendo Puertas was developed for and by Latino parents to build parent capacity and confidence to be strong and powerful advocates in the lives of their children, and to ensure their children are ready to learn. The program offers ten sessions of parenting, leadership, and advocacy training for parents of children ages birth to five. It is an interactive, multimedia curriculum that draws on real-life experiences and cultural strengths of Latino families, and makes the teachings personal and relevant. In a support group setting, approximately twenty parents participate in the program, covering topics related to child and family well-being, good health, social and emotional wellness, school readiness, communication, and advocacy. The program was created in Los Angeles, CA and has been implemented county-wide in Maryland's Prince Georges County. For more information, visit: http://www.familiesinschools.org/abriendo-puertas-opening-doors

Early Literacy Programs

- **Maryland Public Libraries.** Libraries throughout Maryland have story time or prekindergarten classes taught by librarians who are knowledgeable about the Maryland College and Career-Ready Standards and STEM. Story time provides children with a group experience where they can participate in early literacy skill building, while interacting not only with adults outside the family, but with peers as well. Some libraries go beyond story time and provide designated areas for young learners, with puzzles, games, puppets, a kitchen, grocery store, block area, and other materials that encourage early literacy skill development and curiosity. Science is being integrated in the libraries too, with specially created science kits that are shared with caregivers and families. For more information, visit: http://www.publiclibraries.com/maryland.htm.

- **Raising a Reader.** Raising a Reader is a national early literacy and family engagement program that works with direct service agencies (serving children 0-8) so that they can help families develop, practice, and maintain the habit of sharing books with their children. Each week, children bring home a bag of high-quality books that are developmentally and culturally appropriate. Parents participate in workshops that provide ideas for sharing the books and promoting oral language with their child. Over the course of a typical rotation, parents share more than 100 books with their children. At the end of the program, families are connected to local libraries so they can continue the habit of reading. Raising a Reader is currently working with Baltimore City schools and several other school systems. For more information, visit: http://www.raisingareader.org.

- **Ready at Five.** Ready at Five is part of the Maryland Business Roundtable for Education. This non-profit provides downloadable parent tips that guide families in supporting early learning and school readiness. In addition, Ready at Five hosts Learning Parties for parents and their children, during which parents learn strategies for using everyday experiences to promote learning. The Learning Party curriculum is available in four domains of learning: language and literacy, math, science, and social foundations. Each series consists of four 90-minute sessions. Learning Parties have been offered in Anne Arundel, Baltimore, Charles, Fredrick, Howard, Montgomery, and Prince George's counties as well as Baltimore City. For more information, visit: http://www.readyatfive.org.

- **Reach Out and Read.** Reach Out and Read is a national program that supports early literacy and school readiness as a part of pediatric exams. Pediatricians are trained to provide early literacy guidance to parents and distribute developmentally appropriate books to the children during each well-child visit from age six months through five years. By sharing a new book at the beginning of the appointment, the pediatrician is able to help calm the child and engage the family in conversation about reading and early development, opening the doors for effective communication between the pediatrician and the family. There are nearly sixty Reach Out and Read locations in the state of Maryland. For more information, visit: http://www.reachoutandread.org.

Home Visiting

- Home Instruction for Parents of Preschool Youngsters (HIPPY). HIPPY is an evidence-based peer home visiting program that targets families with preschool age children. During the thirty week program, home visitors stress the importance of the parental role in children's learning and provide families with tools – activity packets with books, manipulatives, crayons, scissors –materials they can use to support learning in the home. Parents are encouraged to read to their children every day and to support the development of school readiness skills. HIPPY is an international program organized in Maryland by MSDE as a

strategy for supporting family literacy. For more information, visit: http://www.hippyusa.org.

- Parent Teacher Home Visiting Project. Building upon the lessons learned from home visiting in early childhood, the Parent Teacher Home Visiting Project is focused on building relationships between teachers and parents to support students' learning from elementary grades through high school. The program trains teachers to conduct meaningful home visits, provides support during and after the visiting process, and tracks outcomes of the visits to evaluate the program. Teachers typically conduct two home visits per year for each student, and participate in debriefing and learning exercises between the visits. The visits are found to allow teachers time to build a relationship with families, learn more about their students' strengths and weaknesses, and pave the way for future home-school communication. For more information, visit http://www.pthvp.org.

What is Community Engagement?

Family engagement can extend beyond a relationship between families and an early learning program to encompass a broader connection to the community. Like family engagement, community engagement is a partnership. The early childhood program and the larger community work together supporting one another and sharing responsibility for meeting the comprehensive needs of the young children and their families. Families can be encouraged to exercise their voice and effectively do so through a multitude of forums such as parent advisory groups, Head Start Policy Councils, Parent-Teacher Councils at schools, and county-wide Early Childhood Advisory Councils.

Some early childhood programs are located within community organizations, such as a Judy Center or a county agency. Other early childhood programs are part of the public school system, and benefit from the relationships that the school has with the broader community. It is worthwhile for program leaders to look for ways to rally the support and resources needed to meet the needs of the whole child that go beyond what the program can provide. They can seek out ways to be a valued resource to the community as well, offering a place for meetings, extending training opportunities to providers throughout the community, participating in local celebrations, and joining forces with the community to speak out on behalf of children and their families.

One such example is the Allegany County Judy Center and the Overlook Judy Center partnership in Garrett County to help families and children make the transition to kindergarten. A kindergarten summer camp at the elementary schools includes a time for children to spend time in an actual kindergarten classrooms learning the routines and meeting teachers. Schools hold special lunches and assemblies for prekindergarten children to attend so that they can gain exposure to the school. Still another strategy is that prekindergarten teachers and kindergarten teachers get together each spring to share information about the children who will be transitioning.

Another example is Howard County's transition to kindergarten initiative that includes members from the public school system, childcare community, public library, community college, Judy Center, and Head Start. The workforce developed a vision and goals to build a collaborative community that shares the responsibility for ensuring school readiness. The group meets to discuss transition plans,schedule workshops for parents and children, coordinate registration and give tours at schools. Everyone shares the responsibility for ensuring school readiness and long-term school success for every child.

Educators' Voices: Several families in our infant and toddler program were struggling to "make ends meet." We worked with a handful of parent leaders in our program and identified some of the most pressing needs – help with resumes, how to be effective in an interview,

appropriate clothes for interviews, temporary housing and food pantry options, and the like. Program leadership reached out to the relevant county agencies, non-profits, and service organizations. They planned events for program families that were specifically targeted to their needs. Families left with new information and concrete ideas of things they could do. One community partner was so impressed with the families that she decided to organize a professional clothes-borrowing program. Parents could borrow clothes to wear to interviews and for the first weeks of work until they had the resources to build their own wardrobe.

When early childhood programs work closely with the community, everyone benefits.

- **Children** gain access to community-sponsored opportunities at the library or neighborhood center, or they may find a buddy in a community volunteer.
- **Families** benefit from access to services that contribute to family well-being (e.g., organized sports programs, farmers' markets, support filling out tax forms, job training opportunities, temporary housing), and may expand their social support network as well.
- **Early childhood programs and schools** benefit from both tangible resources such as donations of supplies and committed volunteers, and intangible ones, such as leadership and business advice, or advocacy skills and support.
- **Communities benefit** by having a quality early childhood program that is working tirelessly to ensure the next generation of community leaders and workers are reaching their full potential and developing a strong sense of belonging to the community. They also benefit by having families that are more engaged in their children's learning and are taking steps themselves to strengthen their family's well-being.

Agencies, businesses and parent organizations frequently work together to provide support and resources for families. The National Parent Teacher Association (PTA) published National Standards for Family-School Partnerships as a guide for local PTAs to develop partnerships with schools and such groups as service clubs, businesses, churches and colleges (2009). The guide includes recommendations and parent surveys to assist local organizations in improving their practices of family and community engagement. For more information, visit: http://www.pta.org.

MSDE has created the State Council on Early Care and Education to support twenty-four local early childhood councils that work in addressing the early learning needs of families in each jurisdiction. Each council has representatives from various agencies, such as the school system, child care centers and public libraries. Other stakeholders, such as businesses, will frequently partner with early learning programs, including schools, to promote family engagement. Sometimes a business will sponsor an activity or provide speakers to an event.

Educators' Voices: Our local Judy Center hosts a School Readiness Fair at the local mall each spring to attract parents with prekindergarten age children. Pre-K and kindergarten teachers are on hand to welcome the families, talk about their schools, and register the children for kindergarten. The Lions Club is there to offer free vision screenings, speech therapists administer speech assessments, and librarians help children get a library card. Services for parents are available as well, including GED information, and a local bank provides tips on financial literacy. The annual fair is a joyous time for the children and their families. We have found it to be a golden opportunity for supporting the transition to kindergarten.

Educators' Voices: The principals of the four elementary schools, one middle school and one high school in our area wanted to schedule a family event in the community instead of at the schools. We reached out to the owner of the local supermarket and were able to schedule a "Principal Night" at the supermarket to kick-off the new school year. The supermarket was a popular place and the only supermarket in the community. The owner generously provided large baskets of apples and gift cards for groceries. Each family received an apple from the principal and a raffle ticket for a chance to win a gift card. In addition, the elementary-aged children received a math activities sheet they could complete while walking around the store. Activities included weighing items on a scale in the produce department and listing three different boxes of cereal by order of weight. It was a wonderful way to meet families and form a partnership with a local business.

TIPS FOR EARLY CHILDHOOD EDUCATORS

ENGAGING THE COMMUNITY IN CHILDREN'S LEARNING

There are many ways that programs can work in partnership with the community to support children's learning. Remember, it is a two-way partnership, with the early childhood programs receiving and giving.

- Invite community and business leaders to visit your program, learn about what you offer, and engage in a learning activity with the children.
- Partner with the local library to get all children their own library card, and encourage regular visits to borrow books and participate in library programs.
- Reach out to local museums and galleries and arrange visits for your children, or invite the curators to bring exhibits and projects to your program or school.
- Partner with local service organizations and create a buddy program so that each child is linked to another caring adult in the community.
- Work with community partners to organize a community resource fair so that families can know about and access the services that might be helpful to their family (e.g., health, banking, social services, co-operatives, community supported agriculture programs, youth sports leagues).
- Connect with a local nursing home or hospital and help the children develop crafts/artwork that is shared with the elderly.
- Make a wish list of things the program needs – from supplies to technical or professional help – and circulate it within the community.
- Join forces with other early learning programs in your community and come up with an effective plan

for transition, so that when children move from one program or school to another, the transition can be seamless for children and families.

- Consult local community newsletters for free family activities, and share the information with families in your program or school.
- Encourage families to give back to the community – volunteering at local programs, cleaning up the parks, or stepping up as coaches for children's sports teams.

FAMILY VOICES

As a young child, Matthew struggled to read and at age six, was still having trouble with even the simplest words. Eventually, his first grade teacher talked with me about having him tested. A series of tests later, we discovered that Matthew was dyslexic. It was a relief to be able to put a name on what his difficulty was, and to figure out what we needed to do to help him develop the skills to manage his dyslexia.

Matthew's teacher was terrific in providing extra support to him during the school day to work on basic phonological skills. We discussed a non-profit reading program in the community where volunteers trained in an evidence-based approach for reading instruction could work with him. She gave me tips, too, for what I could do at home to support pre-reading skills. With this three-pronged approach, I felt confident that Matthew would eventually become a reader.

It worked – not immediately, but over a two-year period we saw significant growth in his ability to read. Matthew loved his tutor in the community program. Pearl was so supportive and helped Matthew develop the decoding skills needed to make sense of the letters on the page. He continued to be a slow reader, but eventually he was reading books on grade level by fourth grade.

Years later, when it came time for him to plan a senior year project, I was surprised when he said that he wanted to see if he could volunteer at the tutoring program where he'd worked with Pearl. He said she helped him develop strategies to manage his dyslexia, and now he wanted to help other kids and give them that same encouragement. He recognized, though, that as a senior project, he'd only have two weeks to volunteer with a child, and Pearl gave him years of support. Those two weeks turned into four years. He went through the training to be an official volunteer reading tutor, formed a relationship with a few boys who came to the program for reading support, and kept tutoring these boys while he attended college locally. He wanted to give to them what Pearl gave to him – skills and confidence to achieve his goals.

TAKE TIME FOR SELF-REFLECTION...

How do I engage families in their children's learning? How do I gather information from families about their hopes, dreams or concerns about their child? What do I do to make sure that we work in partnership? What makes working with families difficult? Who can I turn to for guidance?

How do I make links between the community and our children and families beyond referring families to community agencies? Are there community partners that I would like to engage in a relationship to support the children and families? Who are they, what could they do that would help and how would I go about forming a partnership with them?

What can I do to make sure that family and community engagement is not just a series of random acts in the program but that our philosophy, vision and overall operating system reinforces the importance of family and community engagement? How do I know if this is happening? Who do I talk to about taking our actions to new heights?

RESOURCES

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WEB LINKS

AbriendoPuertas
www.familiesinschools.org/abriendo-puertas-opening-doors/

Center on Social and Emotional Foundations for Early Learning (SEFEL) Parent Training
csefel.vanderbilt.edu/resources/training_parent.html
http://theinstitute.umaryland.edu/sefel/

Center on School, Family and Community Partnerships, Johns Hopkins University
www.csos.jhu.edu/p2000/center.htm

CentroNia
http://www.centronia.org/

Colorin Colorado
http://www.colorincolorado.org/

Early Childhood Family Engagement Framework
http://marylandpublicschools.org/MSDE/divisions/child_care

Early Head Start
http://www.ehsnrc.org/AboutUs/ehs.htm

Family Involvement Storybook Center
www.gse.harvard.ed/hfrp/projects/fine/resources/storybook/index.html

Federation of Families for Children's Mental Health
http://www.ffcmh.org

Harvard Family Research Project, Harvard University
www.hfrp.org

Head Start National Center on Parent, Family and Community Engagement
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family

Healthy Families America
http://www.healthyfamiliesamerica.org

Home Instruction for Parents of Prekindergarten Youngsters
www.hippyusa.org

Judith P. Hoyer Program
http://www.msde.maryland.gov/MSDE/divisions/child_care/early_learning/Judy.htm

Maryland Foster Grandparents / Senior Employment
http://www.fcsmd.org/elder-services/foster-grandparents-senior-employment

Maryland Infants and Toddlers Program
http://www.marylandpublicschools.org/MSDE/divisions/earlyinterv/infant_toddlers/about/message.htm

Maryland Prekindergarten Special Education Services Program
http://www.marylandpublicschools.org/MSDE/divisions/earlyinterv/infant_toddlers/about/prekindergarten_services.htm

Maryland Public Libraries
http://www.publiclibraries.com/maryland.htm

National Parent Teacher Association
http://www.pta.org

Nurse Family Partnership
http://www.nursefamilypartnership.org

Parent Teacher Home Visiting Project
www.pthvp.org

Parents as Teachers
http://www.parentsasteachers.org

Raising a Reader
www.raisingareader.org

Reach Out and Read
http://www.reachoutandread.org

Ready at Five
www.readyatfive.org

Ready at Five Learning Parties
www.readyatfive.org

Ready Freddy
www.readyfreddy.org

Strengthening Families
http://www.cssp.org/reform/strengthening-families

Transition to Kindergarten Wiki
http://transitionwiki.pbworks.com

ZERO TO THREE
http://www.zerotothree.org

CHAPTER 4:
DIVERSITY: FOSTERING APPRECIATION AND SUPPORT

This chapter emphasizes the importance of embracing the diversity of our families and making it a part of our teaching. It examines changing demographics and the impact of poverty. The chapter highlights strategies and programs for children that have disabilities, are gifted or talented, or are English language learners. Assistive technology and Universal Design for Learning reveals practices to allow all children access to learning. The chapter features Social and Emotional Foundations for Early Learning (SEFEL), a model supporting the emotional needs of children. Educators share best practices for supporting diversity in the early childhood setting.

◆ Helpful terms ◆ Changing demographics ◆ Diversity and poverty ◆ English Language Learners ◆ Students with disabilities ◆ Assistive technology ◆ Children who are gifted and talented ◆ Universal Design for Learning ◆ Why is diversity important? ◆ Supporting diversity in the classroom ◆ Diversity and socialization ◆ Resources and web links ◆

HELPFUL TERMS

Bias	The inclination to hold a partial perspective at the expense of other perspectives. Someone with a biased perspective lacks a neutral point of view. A person is unaware of one's bias as compared to an opinion.
Bullying	Bullying refers to conduct that adversely affects a child's ability to participate in or benefit from an educational experience. It is most often the result of repeated negative actions by one or more children over time. Bullying can be verbal, social, physical or cyber.
Cross-cultural skills	People with cross-cultural skills are able to understand, communicate with, and effectively interact with people from diverse cultures.
Culture	Culture is represented by the characteristics of a particular group of people, defined by everything from language, religion, cuisine, social habits, music, and arts.
Cultural competence	Cultural competence refers to an ability to interact effectively with people of different cultures. It comprises awareness of one's own culture, attitudes toward cultural differences, knowledge of cultural practices and worldviews, and cross-cultural skills.
Cultural pluralism	Cultural pluralism occurs when people with different cultures can maintain their cultural identities and live side-by-side with others. Further, individuals recognize and value traits of other cultures.
Diversity	Diversity refers to qualities that are different from our own. Dimensions of diversity include but are not limited to: age, ethnicity, gender, gender identity, physical abilities/qualities, race, sexual orientation, educational background, parental status, and religious beliefs.
English Language Learners (ELL)	Individuals whose first language is a language other than English. English Language Learners bring with them diverse histories, traditions, and varied educational experiences.

Individualized Education Program (IEP)	An Individual Education Program (IEP) is for children ages three to twenty-one with disabilities. The plan, developed by a team and reviewed at least annually, documents the child's present level of academic achievement and functional performance, including on how the disability affects the child's participation in appropriate activities as well as educational goals, supports and services.
Individualized Family Service Plan (IFSP)	The Individual Family Service Plan (IFSP) details early intervention services for young children with disabilities age birth to age three (with opportunity for an extension to age five). The plan, developed annually and reviewed every six months by a team that includes the family, is based upon the evaluation and needs of the child. The plan contains information about the child's present levels of development and services to be provided in the natural environment.
Individuals with Disabilities Education Act (IDEA)	The federal law ensures services to children with disabilities. IDEA governs how states and public agencies provide early intervention, special education, and related services to eligible infants, toddlers, children, and youth with disabilities.
Inclusion	An inclusive education for all students of all ability levels is one that provides students with the opportunities to receive effective education services, including needed supplemental services and supports, in age appropriate classes in their neighborhood schools, to prepare students for productive lives as full members of society.
Multiculturalism	Multiculturalism encourages interest in many cultures within a society, rather than just the mainstream culture.
Realia	Realia are objects and materials from everyday life that are used as teaching aids.
Universal Design for Learning	Universal Design for Learning is a belief and set of practices that assure all children have access to learning opportunities that support their individual development.

Changing Demographics

In the past twenty years, Maryland has seen a dramatic increase in the diversity of its students. Where districts in the past could count the number of English language learners on one hand, now, many early learning programs have multiple classes of children for whom English is not their first language. Early childhood educators need to be skilled in creating supportive learning environments that honor the culture, beliefs, experiences and expectations of children and their families who are new to our programs. In some early learning environments, specialists are available to work with educators and families.

The early learning years offer an important opportunity for teaching children about cultural pluralism so that they can develop a deep understanding of the many cultures and perspectives that are part of the global community.

Every child and family comes to early childhood programs with a unique story. Skilled early childhood educators embrace the differences among children and recognize, honor and build upon the background of each child and family to achieve inclusion for all. They tailor their interactions, as well as the supports and services they offer, to be most inclusive and responsive to a child and their family. Doing so bolsters the early social and emotional foundations of the child; contributing to a welcoming and trusting environment for all. It also establishes a tone of respect, non-discrimination, and a growing appreciation of diversity within the program that can extend to the broader community.

Maryland has seen changes in its population during the past decade and the state is poised for an even more diverse citizenry in the coming years. Some key indicators from the Kids Count data[7] set are included in the following tables.

Demographics in Maryland	
	2012
MD Children in Poverty	14%
MD Families Unemployed	7%
MD Children within Immigrant Families	25%
MD Children in Single-Parent Families	36%

Child Population by Race/Ethnicity in Maryland*	
	2012
White	47%
Black or African American	29%
Asian	5%
Hispanic or Latino	10%
Two or More Races	5%

*American Indian or Native Alaskan, Native Hawaiian or Pacific Islander, or other race not listed constitutes less than 4%.

Diversity and Special Populations

While many equate diversity with differences in ethnicity and language, the early childhood community takes a broader view and extends this to include religious, gender, cultural and economic diversity. In addition, early childhood educators recognize physical, cognitive, social, and emotional differences as diversity. All these forms of diversity contribute to the tapestry of early childhood programs and schools.

In terms of policy, diversity's flip side stands for the gap of opportunity and achievement among identified demographic groups. The changing demographics in Maryland open up opportunities

7 Annie E. Casey Foundation (2013) Kids Count at http://www.aecf.org/KnowledgeCenter/Publications.aspx?pubguid=%7B3259C901-9198-41AE-845E-9EADB1CFC8D7%7D

for addressing diversity in a significant way and, in the process, address the critical achievement gap for most that belong to the special populations. The National Black Child Development Institute expounded the notion of diversity by issuing a report with the intriguing title, *Being Black Is Not a Risk Factor: A strength-based Look at the State of the Black Child* (National Black Child Development Institute, 2013). While it inventories the challenges facing African American children, it also lists successful model programs and inspiring personal essays as a path to a brighter future.

Children Growing up in Poverty

Data from the 2011 census records the Maryland child poverty rate at 14 percent.[8] Some 66,000 Maryland children under age six were living in poverty. More than 35,000 of those children were living in extreme poverty, which is half or less of the poverty level. Young children coming into kindergarten from families with low and moderate incomes,[9] represent almost half of all five-year-olds entering school.[10] Children who grow up in poverty are at risk for health and mental health challenges. The chance of them reaching their full academic potential is often impeded. A number of solid statistics stack unfavorably against children growing up in poverty. Factors affecting school readiness and student achievement that stem from poverty are low birth weight, lead poisoning, hunger, and poor nutrition (Nelson, 2006)

Yet some factors are within the control of families and early education and schools. School mobility, chronic absences, teacher expectations, and gaps in family engagement are decisions made by those who touch the lives of the children every day. Such decisions, however, are mired in a complicated set of conditions and obstacles that require endurance and tenacity. Lack of transportation, having to work two jobs, and the constant stress associated with few or no resources tend to force the family's engagement in their children's learning into the background. When dissecting poverty and school success – especially in the early years - Nelson (2006) poses three gaps that define the learning environment of middle and upper income to that from the lower income strata:

- The "reading gap" refers to reading to children at home by using meaningful reading materials.
- The "conversation gap" refers to the differences in the type and quality of conversation.
- The "role model gap" refers to the differences in types of adults, older siblings and friends to whom children are exposed.

All three of these concepts have strong potential of turning risk factors into success stories. Maryland has chosen a comprehensive approach to addressing these gaps. Many of the initiatives listed below are found in Chapter 3.

The reading gap is being addressed through the expansion of high quality early childhood education programs (more prekindergarten, Maryland EXCELS, early reading initiatives such as Raising A Reader and family engagement such as (Learning Parties) in Title 1 school attendance areas. Even pediatricians are helping with the Reach Out and Read initiative. Libraries are reaching out to low income communities to offer training to librarians on school readiness, expand story time to many more youngsters, and garner membership among many who never set foot into a library (Stoltz, Carnecki & Wilson, 2013).

The **conversation gap** is directly related to the huge discrepancies in children's vocabulary and its ensuing impact on reading achievement in the lower elementary grades (Hemphill & Tivnan, 2008; Dickenson & Tabor, 2001). The dissemination of the Maryland College and Career-Ready Standards with its emphasis on vocabulary building and reading comprehension as well as targeted programs such

8 Child poverty as defined of household incomes at or below 100% of the Federally Poverty Guidelines

9 Defined as 185% of Federally Poverty Guidelines

10 Ready at Five (2013) Getting Ready at http://www.readyatfive.org/raf/school-readiness-data/how-is-school-readiness-measured.html

as VIOLETS in low income communities engages families into being intentional about fostering confidence in young children's thinking and learning.

The role model gap with its emphasis on expanding the horizons of young learners is being addressed by parent-child activities, special outings, and more heterogeneous classroom profiles in high quality early childhood programs. Judy Centers, Preschool for All sites, and family support centers are thriving models for addressing the role model gap for young children.

English Language Learners (ELL)[11]

Maryland's growing diversity includes children under age eight for whom English is a second language. Understanding language development and the process young children navigate to learn English, while they are still learning their first language, is an important knowledge base for teachers and early childhood educators. Cultural differences and language barriers may sometimes stand in the way of accurately assessing children's development. Children who are English language learners (ELLs) may offer limited oral participation, but they can be fully engaged in learning and excel on grade level benchmarks with their English-speaking peers.

Research highlights that being grounded in one language facilitates the acquisition of a second language, thus having a primary language other than English should be seen as an asset. For educators, understanding that ELL children learn best through the context of play, center activities, partner activities, and small group experiences is important, as all of those opportunities can be available in the early childhood setting. When children have a strong foundation in their home language, they are able to more easily transfer concepts and knowledge to a second language. Families should be encouraged to speak their home language to their children.

11 English Language Learners (ELL) refers to non-native speakers whose home language is not English.

Many programs and schools have ELL specialists who are able to work with educators and students one-on-one or in small groups to provide coaching to the educator and support to the children. In this way, the process of developing fluency in a second language is an integral part of the child's education. For more information about language instruction for immigrants and non-English speaking children, visit: http://www.marylandpublicschools.org/MSDE/programs.

The state consortium World Class Instructional Design and Assessment (WIDA) offers the latest pedagogical support for ELLs. Its English Language Standards K-12 is informed by the latest development in research and states' content standards. In addition, it released the Early–English Language Development (E-ELD) Standards for ages 2.5 to 5.5 years, geared toward Head Start and child care providers.

It provides English and Spanish language acquisition on five levels (ranging from entering to bridging) which provides performance definitions for the criteria language use and linguistic complexity. For instance, preschoolers (43-54 months) at the entering level should demonstrate understanding of words and expressions with familiar environments or be able to respond to "Yes/No" questions related to one's self or familiar people. Preschoolers at the upper level should be able to form compound sentences and specific vocabulary words related with stories. The complete set of standards, tool kits and other information

about WIDA can be found by visiting the website: http://www.wida.us.

Children with Disabilities

The Individuals with Disabilities Education Act (IDEA) is a federal law that ensures services to children with disabilities. IDEA governs how states and public agencies provide early intervention, special education, and related services to eligible infants, toddlers, children, and youth with disabilities. Children with an identified disability may have an Individual Family Service Plan (IFSP) if they are birth to age three or an Individualized Education Plan (IEP) if they are three to twenty-one years of age. Both Plans are developed annually by a team that includes the family, and is based upon the evaluation and needs of the child. The plan contains information about the child's present levels of development and services to be provided in the natural environment. Information about assessment and the identification of children with a disability can be found in Chapter 8. An excellent source for additional information is the U.S. Department of Education website: http://www.idea.ed.gov.

In Maryland, an inclusive education for young children of all ability levels is one that supports participation along a continuum of community and school-based early childhood programs and settings. The use of appropriate modifications and accommodations in the early childhood program, setting or services, allow young children with disabilities to have meaningful access to the general early childhood curriculum and instruction. The intention is to narrow the school readiness and achievement gap with typical peers and establish a foundation for positive outcomes throughout their educational experience.

In accordance with the requirements of IDEA and the Code of Maryland Regulations (COMAR), children and youth with disabilities, ages three to twenty-one, are entitled to a free appropriate public education (FAPE) in the least restrictive environment (LRE). LRE requires that, to the maximum extent appropriate, children have access to the general education curriculum, along with the learning activities and settings available to their peers without disabilities.

For infants and toddlers with disabilities and their families, the IDEA requires that early intervention services and supports be provided in the natural environment (NE), defined as settings that are natural or typical for a same aged infant or toddler without a disability, and may include the home or community settings. The LRE provisions in the IDEA stipulate that a decision regarding the location in which services are delivered begins first with a consideration by the IFSP or IEP team of regular early childhood settings. A more restrictive or separate setting is considered only when accommodations or modifications to that early childhood setting would result in a fundamental alteration of the program.

The position paper on Inclusion, as noted in the box below, developed by Division of Early Childhood (DEC) of the Council for Exceptional Children and the National Association for the Education of Young Children (NAEYC) defines the core national principles of inclusive early childhood education as:

1. **Access**: Every child with a disability is entitled to participate in early childhood settings and activities with their typically developing peers. Currently, "inclusion" and "inclusive education programs" adapt settings to eliminate barriers to learning and foster participation among children of all ability levels. Programs or classrooms do not become "inclusive" merely because they enroll one or more children with disabilities. Inclusive early childhood settings ensure access to all activities and materials for all children. They promote interaction and learning between children

with disabilities with their peers without disabilities via group/individual activities and lessons. Inclusive settings also provide professional development to staff and foster collaboration among families and professionals.

2. **Participation**: Diversity among children, families, and providers, is celebrated. The participation of young children with disabilities in community early childhood settings reflects the increasing diversity in American society, and acceptance of children, families and staff from a variety of backgrounds. Inclusive communities accept all children and families and support their participation in various early childhood settings and classrooms.
3. **Collaboration**: Early care and education service providers and agencies working in partnership to meet the developmental and learning needs of all young children is a cornerstone of a quality inclusive education. A child and family are at the heart of every early childhood educational experience. Collaborative partnerships are essential for creating a quality learning environment that supports the educational needs of all children.

Inclusive early childhood settings help all preschool children develop readiness skills for language and literacy, mathematics, social functioning, as well as other developmental domains. When there is joint and ongoing commitment for planning and support among team members, all children can learn and succeed together. For more information, visit the websites of the National Association for the Education of Young Children (http://www.naeyc.org) and the Division of Early Childhood of the Council of Exceptional Children (http://dec-sped.org).

EARLY CHILDHOOD INCLUSION POSITION STATEMENT

Early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child, and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with, and without, disabilities, and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential. The defining features of inclusion that can be used to identify high quality early childhood programs and services are access, participation, and supports.

DEC/NAEYC. (2009). Early childhood inclusion: A Joint Position Statement of the Division for Early Childhood (DEC) of the Council for Exceptional Children and the National Association for the Education of Young Children (NAEYC). Chapel Hill: The University of North Carolina, FPG Child Development Institute.

Assistive Technology

Technology use in the classroom, either “low” or “high” tech has been introduced relatively early as assistive technology for children with disabilities. Learning disabilities do not go away with time. However, assistive technology can help children

with learning disabilities leverage their strengths and compensate for specific learning problems. These supports are the key to helping users become more independent in school and throughout life—on the job and in activities for daily living.

Children Who Are Gifted and Talented

Gifted and talented children in the early childhood setting benefit from careful consideration. As with all children, the early childhood educator needs to focus on identifying strengths and setting goals for educational plans that propel the child to new heights of learning. Understanding the band of development is not always sufficient for these children, who may have cognitive skills that are two, three, or more years beyond what is expected for their age. It is important that educators identify these children and find ways to challenge them so that they, too, can partake in a growth experience, and will not simply pause, waiting for others to catch up.

Maryland promotes **The Primary Talent Development Early Learning Program Pre-K –2 (PTD)** which is a science-based critical and creative thinking curriculum integrating gifted education and early childhood education theory and practice. PTD engages all students in open-

Suggested Assistive Technology Toolkit Items and Features

Communication	Visual Schedule/calendar	Pictures or symbols representing a desired activity or task inserted in a schedule or calendar
	Picture communication symbols	Ready-made symbol sets for communication and teaching language concepts
	Boardmaker Software	Software program that contains over 3,000 Picture Communication Symbols to make communication displays or educational materials
	Picture symbol display for boards	Books or boards containing picture symbols that are theme based around everyday activities.
Learning	Adaptive scissors	Easy-grip scissors to help developing hands cut. These are blunt-tipped loop scissors
	Talking books	Digital books available in different formats that allow children to hear the story read aloud.
	Adaptive keyboards	Alternative keyboard that features large, well-spaced keys in high contrast colors to make it easy for users to locate letters and numbers.
Movement	Weighted vest	Vests that open down the middle for amounts of weight which is adjustable. The heaviness of the vest provides sensory input and often helps increase attention and concentration.
	Adaptive seating	Chairs that are height and depth adjustable with firm backs.

Source: Constructing and assistive technology toolkit for young children: Views from the field by Sharon Judge. Retrieved from: http://olms.cte.jhu.edu/olms/data/resource/6682/Constructing an Assistive Technology Toolkit.pdf

ended, hands-on, problem solving experiences that promote the learning behaviors associated with lifelong success: perceptive, communicative, inquisitive, persistent, creative, resourceful, and leadership. By the completion of Grade 2, each student has a cumulative PTD Behavioral Scale documented by portfolio artifacts that is used to making referrals for gifted and talented student identification. For more information about gifted and talented programs, please visit: http://www.marylandpublicschools.org/MSDE/programs.

The goals of the program consist of three pedagogical principles:

- Provide opportunities for all children to develop and demonstrate advanced learning behaviors, including children from groups underrepresented in advanced programs.
- Build a profile of student strengths over time, prekindergarten – second grade, which can be used to document the need for differentiated instruction and gifted and talented education.
- Provide models of the essential strategies of analyzing attributes, questioning, and creative problem solving which are transferrable to new learning situations.

Johns Hopkins University's Center for Talented Youth (CTY) offers opportunities for children under 8 years to enroll in CTY online courses. In Elementary Problem Solving I (grades 2-3), students work with place value and use online manipulatives to name and represent numbers up to 1,000. They add, subtract, multiply, and divide whole numbers, and investigate simple fractions. They explore volume, area, money, temperature, and time. Students also investigate relational ideas in algebra using number sentences, tables, and linear patterns. In the Young Reader Series, second and third graders read three or four thematically connected, age-appropriate books of increasing difficulty and participate in online group discussions, post writing assignments, and learn sophisticated vocabulary and literary devices. Instructors encourage students to read carefully and cite the text to support their points. Students become conscious of the importance of interpreting an author's inferences in understanding plot and character.

Universal Design for Learning: Helping Diverse Learners

Universal Design for Learning (UDL) was originally a concept to eliminate architectural barriers during the application of the Americans with Disabilities Act (ADA) in the late 1980s. According to the Center for Applied Special Technology (CAST), architect Ron Mace, the late founder and director of the Center for Universal Design at the North Carolina State University, created the concept of universal design due to his frustrations with the accessibility of many buildings. He explained that universal design would "consider the needs of the broadest possible range of users from the beginning."

Researchers at CAST (http://www.cast.org) realized that some of the basic elements of universal design – its flexibility, inclusiveness, and foresight in anticipating people's needs – could be applied in the field of education. They have found that, just as with architectural and product development, UDL helps all of the students in a classroom, regardless of ability or disability.

Theory behind UDL

In developing Universal Design for Learning, the researchers at CAST identified three main areas or "networks" in the brain:

- The recognition network is where we process information gathered by our senses, e.g., words that we have read or heard, images that we have seen and objects that we have touched. This network is all about the information coming INTO our brains and represents the "what" of learning.
- The strategic network helps us to organize our ideas and then plan and carry out tasks based on these ideas. When we answer a question on a test or build a diorama, we are using the strategic network. This network is largely about information going from our brains OUT TO our muscles so that we can act. It is the "how" of learning.
- The affective network is about things which interest and challenge us. For example, when a child becomes excited about math because he can use it to measure the speed of a rocket (as opposed to using numbers in a more abstract way), it is because his affective network is engaged by the idea of the rocket. The affective network is about the "why" of learning, the activities or ideas that MOTIVATE us to learn.
- The CAST researchers discovered that everyone – non-disabled and disabled alike – exhibits differences in the way each of these networks function. It turns out that the activity in these networks is actually as unique as each person's fingerprints. That means that there is no such thing as a "typical learner" and that any kind of "one-size-fits-all" educational approach does not reach all learners.

UDL was developed in response to this. It does not ask the diverse learners in every classroom to adjust to the curriculum. Instead, UDL asks that the curriculum be designed to address the diversity of the learners to whom it will be presented. It addresses the differences among learners based on the following three brain networks and it uses "many sizes" rather than "one-size:"

Brain Network	Curriculum
Recognition	Provide multiple and flexible means of presenting what is to be learned (representation) so that all children will be able to access the content; e.g., some children may read the book, while others use a digital version of the text that includes text-to-speech software
Strategic	Provide multiple and flexible means of action and expression so that all children will be able to demonstrate what they have learned; e.g., some children write a paper on a topic, while others give an oral presentation
Affective	Provide multiple and flexible means of engaging the learner in what is to be learned so that all children will be motivated to learn; e.g., some work on a project individually, while others, who are more stimulated by collaboration, work in teams

Throughout Maryland, educational settings are guided by a commitment to UDL. The National Center on Universal Design for Learning (http://www.udlcenter.org) provides educators with an abundance of information. At the heart of UDL is a belief that all children should have an equal opportunity to learn. This means that:

- All students have meaningful access to the curriculum and assessments that accurately measure their knowledge; and

- All educators have the strategies, tools and instructional materials they need to effectively address diverse learners in their classrooms, including gifted students, English language learners, and students with disabilities.

UDL is forcing educators to think in terms of shaping everyday curriculum to meet the needs of the diversity of the learners who are present. Taking this a step further, in everyday practice in educational settings – from early childhood through high school – Maryland educators are encouraged to provide:

- **Multiple means of representation** to give learners various ways of acquiring information and knowledge;
- **Multiple means of action and expression** to provide learners alternatives for demonstrating what they know; and
- **Multiple means of engagement** to tap into learners' interests, challenge them appropriately, and motivate them to learn.

Educators' Voices: With my training in special education and a focus on text, I regularly use pictures to help older toddlers acquire language. Much of my work happens in the home where I am able to be a partner with the parents and model for them how to support the language development of their child. For example, I brought a picture of an apple and the real fruit to a home visit. Sammy was sitting in his mom's lap and I showed him the real apple. Sammy held the apple to explore it while I showed Sammy a picture of the apple and said the word "apple." He worked with me to say the beginning "a" sound of apple. His mother washed the apple and sliced it. Then she gave him a piece of the apple. He was delighted when he put the apple slice into his mouth. I placed the picture of the apple on a laminated piece of paper with Velcro on it. Sammy had to ask for more apple slices by handing the picture of the apple to his mother. His mom took the picture and said "apple" while at the same time providing Sammy with another slice of the apple. His mom practiced this skill before we ended our session. I was able to use pictures and a preferred item as tools to help him acquire language and communicate with familiar adults.

MULTIPLE MEANS OF REPRESENTATION

DEFINITION	EARLY CHILDHOOD PRACTICES
This means presenting information and content in multiple ways that are accessible to different learners. Early childhood educators are encouraged to present new information using at least two practices to appeal to the diverse developmental needs of children.	• Provide a variety of books, songs, posters, pictures, realia, and hands-on objects • Provide visual cues, hand gestures, and sign language • Allow the use of text-to-speech technology • Make information available in the dominant language as well as first languages for English Learners • Link new learning to prior knowledge • Use examples and prompts

MULTIPLE MEANS OF ACTION AND EXPRESSION

DEFINITION	EARLY CHILDHOOD PRACTICES
This means allowing multiple ways for children to express what they know. The key is for the child to be able to communicate their knowledge	• Provide additional time for tasks • Make assisted technology and multimedia available • Provide opportunities for children to write, speak, and act out their ideas • Provide prompts to "stop and think" and ask questions to guide reflection

Educators' Voices: With a classroom of enthusiastic first graders, many of whom are English language learners, I continuously weave multiple ways to present information into teaching opportunities. For example, when I was teaching the children the word "isolate," I had it written on a small vocabulary card. With the children observing and prompting me what letter to write next, I copied it onto a larger card that we could post on our word wall. I talked with them about what isolate means, and then had the children act it out by sending Miguel to a desk across the classroom and talking about how Miguel was isolated from the rest of us. For some of the children, seeing me write the word was most helpful; for other children, acting it out was the key for them to own the new vocabulary word.

Educators' Voices: The children in my classroom are at different ability levels, and I never want to create a situation where a child feels "less smart" than others. During math, I give a question to the full class (e.g., how many ways can you think of to get the sum of four?) and ask them to think quietly about their answer. The children show me their thinking by placing their right hand over their heart and extending the number of fingers that represents the number of solutions. This way, no one is shouting out an answer, no one is raising their hand, time is not a point of pressure, and they are all working independently to think of solutions. I then invite the children to show me their solutions. One child may choose to write an equation, another child may choose to verbally describe for me how she solved the question; still another child might choose to use counters to show his answer.

Educators' Voices: I work with other first grade teachers to develop cross-curricular projects that are theme-based. Recently, we created a first grade zoo. The children reflected on their field trip to the zoo in kindergarten and built on that knowledge as they read books about animals and learned about the differences and categories of animals. The children had multiple ways to engage with this activity. We had art projects where they could paint, draw a picture, or make a collage of their favorite zoo animal. We had writing projects, too, with prompts that they could use for forming their thoughts. For some children, writing a simple sentence was the goal; for others, writing a complete paragraph was the goal. Some children chose to create puppets and then work together as a group to put on their own puppet show to portray what it would be like to live and work at a zoo. Expectations were individualized for each child based on their learning goals and skills. On the last day of the project, all of the first graders came together to share and celebrate their work in our in-class zoo.

MULTIPLE MEANS OF ENGAGEMENT	
DEFINITION	EARLY CHILDHOOD PRACTICES
This means creating multiple ways to create interest and motivation for learning.	• Provide choices for how the children can work on a project (e.g., whether they will color, paint, or use classroom objects to illustrate their understanding of the seasons) • Make the lessons relevant to their culture and personal experiences • Provide a space for learning that enables the child to engage in learning in their own way • Vary the degree of difficulty of tasks

Why Is Diversity Important?

Fostering an awareness and appreciation of diversity is important for children and adults alike. We live, work, and form relationships with people who have backgrounds and formative experiences that may be different from ours. The more early childhood educators are able to help children and adults value and respect diversity in all of its forms, the further we move toward living in a more respectful and cooperative society. Valuing and respecting diversity needs to be part of the foundation of education for all children.

Educators' Voices: Lakisha joined our class two months into the school year. Like all curious three year olds, the children were eager to learn about Lakisha's cochlear implants and the movements she was making with her hands when she said goodbye to her father after drop-off. Her father and I anticipated that these questions would come up and talked about things we would do to help the children understand about hearing impairment and the tools and strategies Lakisha uses. We added books about children with hearing challenges to our library and a sign language alphabet poster. The public health nurse, who was already scheduled to come for the annual hearing tests, built additional time into her day with us so that she could talk about the machines she uses to test hearing and the different types of devices that people use to hear better. The other three-year-old educators joined me in a series of workshops on American Sign Language and we all began using some common signs with the children in class and on the playground. Soon, the children were signing back. The children and educators alike all benefited from having Lakisha as a part of the community.

Educators' Voices: I organized a unit of study on the senses in my home-based child care program. At the end of the unit, I invited the families to participate in a potluck to celebrate the children's work and to build community. The children were asked to bring in a favorite recipe that is special for their family. In advance of the family night, I worked with children to give their recipe a special name (e.g., Grayson's So Cool Lemonade) and to create a story revolving around the recipe (e.g., My grandma used to make lemonade). Family night arrived and the children were giddy with excitement to share their stories and to sample food and drink from each family. Not only was it a night of building community and celebration for the children, but the adults reached new heights of

bonding too. Parents from different cultures reached out to each other to talk about the dishes and recipes. At the end of the evening, all were eager to take home a copy of the cookbook made by the children.

Supporting Diversity in the Early Childhood Environment

Just as family engagement beliefs and practices need to be embedded throughout the early childhood programs to benefit the child and family; this is true with respect to diversity as well. Children need to be able to see themselves as full participating members in their early childhood program. All people working within the early childhood setting have a role to play in making sure that the environment is welcoming and inclusive.

At the systems level: Mission statement, policies, and procedures are written and implemented in which an appreciation for diversity is part of the foundation of the program. Recruitment, hiring, and staff development opportunities are designed to ensure a diverse staff and instill the values of respect, tolerance, and non-discrimination. A diverse staff helps enrich the program through culture, language, and tradition. Performance reviews should include plans for how early childhood educators can continuously learn about the unique attributes of the children and families in the program. Educators should then be encouraged to incorporate those learning situations into their daily practices.

Consideration needs to be given to the means of communication between the program and families. The situation may call for the use of interpretation, translation, non-standard times for parent meetings, assistive technology, etc., to ensure strong home-school communication. Expecting this, and budgeting accordingly to support multiple means of communication, is important.

Educators' Voices: Our goal is to ensure all families can be engaged in the program and feel they can communicate with staff and contribute in meaningful ways. During the intake process and in preparation for IEP meetings, we work one-on-one to identify the supports that families may need to fully participate. Sometimes they need an advocate; sometimes they need a translator; sometimes they need help with transportation. While we have some funds in our budget for supporting families, it is not always enough, so we've formed partnerships with community organizations and churches. Through these partnerships, we are assured of compassionate, caring adults who are willing to step in and support the family.

Within the classroom: Early childhood educators need to think beyond adding a special theme or unit, or having a one-time cultural celebration. Skilled early childhood educators know how to make all children feel a part of the whole class and learning community. The materials, books, pictures, posters, artifacts/realia, music, art, costumes, puppets, and the authenticity of these items should reflect diversity. The ultimate goal is to ensure that children are able to engage with these items and "see" themselves using these objects and to use them to learn about others too.

Educators' Voices: A new early childhood educator in our prekindergarten recently asked me how I promote multiculturalism in my classroom. She was searching for more insight on how to promote multiculturalism, beyond the material we have on the shelf or the pictures hung on the wall. I explained that multiculturalism is the way that we respect the differences in the

children we teach and the families with whom we interact. Multiculturalism needs to be relevant, and supportive of family traditions that expand farther than the country that a child's ancestors originated. It needs to be reflective of what is in our neighborhood and community, honest and true, not just dressed up in traditional clothing, respectful and kind, comprehensive and cross-curricular. I reminded her that multiculturalism is all around us and it cannot always be put on a shelf.

Educators' Voices: "We Represent" was a classroom display that the students and I created as a foundation for studies of cultures. During the first week of second grade, we spent time getting to know each other and identifying what a classroom family looks, sounds, and feels like. Students participated in "gab sessions" where they shared thoughts about themselves and suggestions that would make our "class family" stronger. The next week the students had an assignment to work with their family to identify their country of origin (student and parent); colors/sample of country flag; picture of the student; and an artifact that represented a tradition or other aspect of the families' culture. With this material, students helped to organize a wall display. They shared artifacts, first in table teams, and then with the entire class. Later in the year, when we were studying continents and cultures in social studies, students paired up and together wrote informational reports using their partner's country of origin as the topic. The "We Represent" display helped to create an awareness of our community and celebrate our coming together, learning, and growing.

Regardless of where you meet, taking time to engage families in conversations about their hopes and dreams, their joys and challenges, is important. Early childhood educators should learn from families about their expectations for their child and take note when the families' expectations may differ from those held by educators. For example, in some cultures it is not expected that children will put on their own coat for recess, but rather that a family member or the early childhood educator would assist, demonstrating care and admiration. Yet in other cultures, parents might desire independence for their child and expect that a very young child take responsibility for dressing. Families may have very different expectations about dressing, feeding, and toileting. Early childhood educators need to be sensitive to read the cues of the family, respect their values and priorities for their children and not insert their own expectations or views.

Inviting parents to share their traditions is another strategy for raising awareness. Early childhood educators should ask about special family traditions and find ways to incorporate these into the program. Maybe a family would like to teach others about a craft or trade special to their culture; or maybe a family would want to explain a ritual for a holiday ceremony; maybe other families would want to share their strategies for traveling with family members who have limited mobility. Further, understanding the role that the community plays for the family is also key. Some may have very close ties with their community such that it becomes an extended network offering social, emotional, or even financial support. The more we know about where and how families can access support and information, the better able we are to help when needed. This also gives the educators more perspective on the beliefs and expectations that families may have about child development, social support, and community.

Educators' Voices: Maria and her family were recent immigrants from Central America. Maria is in my first grade shelter classroom – which means that I use strategies in every part of my teaching that addresses the needs of the ELL students. Maria immediately bonded with several of the students in the class, but a few months into the year, Maria seemed distracted and not her normal happy self. When a new pattern emerged of Maria not bringing in her homework, I asked for a meeting with her mother. She happily accepted my offer to have a translator help with our conversation, but asked that we meet on the weekend. It turns out that Maria's father recently lost his job and her mother had to go to work for a

Cultural Competence

Cultural competence is an ability to interact effectively with people of different cultures (race, religion, economic, language and heritage). It comprises awareness of one's own culture, attitudes toward cultural differences, knowledge of cultural practices and world views, and cross-cultural skills. Our understanding of culture presents a filter for how we see and interact with the world. Therefore, it is important to become aware of our own cultural world view, understand our instinctive attitude toward differences or biases, and be more open and accepting of differences – whether they are cultural, religious, gender, socioeconomic, or other forms of diversity. As early childhood professionals, we should consider how our mindset leads our actions and be aware that our students observe the spoken and subtle ways we accept differences in each other.

family, providing child care and domestic help. It was a live-in position during the week. That explained so much! I tried to think of resources I could connect the family with for support. I knew that the Maryland Department of Labor, Licensing and Regulation was having a job fair, so I provided the phone number for the Spanish-speaking information line. I also knew that some of the churches were having a community yard sale the following weekend, and I thought that might be an opportunity for the family to meet some more people and access resources. Things started to get better for the family once they formed some ties in the community and started to grow their network of support.

Educators' Voices: Jiang came to our center at the age of three, unable to speak English. For the past year of her life, she lived in China with her grandparents. On Jiang's first day at our center, she had been in the United States for less than one week. Her grandmother (Nainai), who also did not speak English, came to school with her and stayed the whole day for two weeks! Nainai sat with us at circle-time, ate lunch with us, and during nap time, she sat in the rocking chair and read her book. We never viewed Nainai's presence as an intrusion. We knew it was what the child, the family, and the grandmother needed to make the transition a smooth one. By the time Nainai returned to China, everyone felt comfortable. As a postscript to this story, approximately six months later, a new child, Liu, enrolled in our program. By this time, Jiang's English vocabulary had increased and she was able to help Liu, who did not speak English, with his transition by telling him in Chinese that his mother would be back soon. Liu's mom was so grateful for the easy transition that she assisted our program by translating many of our classroom labels into Chinese (Mandarin) and recording some of our books onto a CD to add to our listening area.

With children: Day in and day out, early childhood educators should be thinking about how they will celebrate each child in their care to build the social, emotional, and academic foundations for the individual child, and to demonstrate to the community a sense of respect and appreciation for all.

Skilled educators find ways to identify the unique contributions each child brings to the learning environment and adapt practices, routines, and teaching strategies to build upon these contributions. They know how to set high expectations that are specific to each child, based on the child's individual strengths and needs as well as the child's approach to learning. By creating opportunities for cooperative learning,

early childhood educators are able to help children work together across gender, cultural, religious, and economic bounds, and engage in true collaboration. This often sparks new friendships and can lead to greater respect and empathy among the children.

Educators' Voices: Sam had a pronounced speech delay, such that on the first day of school in my four-year-old class, a few parents asked his mother what language he spoke! I met Sam before the school year started, and knew that understanding him was going to be a challenge until we got to know him better. His family had him in speech therapy already, so they were being proactive and doing all they could to help him. True to form, the other children barely noticed and launched into pretend play with Sam immediately. However, when help was needed in understanding Sam, we were quick to give support. We gave Sam many opportunities to speak up in class and regularly reviewed updates from his speech pathologist, so we knew what strategies she was using and what sounds he was focused on mastering. By the end of the school year, he had made incredible progress. Feeling confident with his speech, Sam chose to participate for the lead of the class play. Sure enough his name was drawn. While not every word was articulated clearly, you could see real pride in the face of both Sam and his mom for all the growth he had experienced during the year, and for the friendships he had formed in the class from that very first day onward.

Educators' Voices: In my prekindergarten special education classroom, we have a "calm down" castle tent where a child can go to be alone. In the castle, they use the calm down strategies from our social skills training before rejoining the group. Since we have been using the castle, we have seen a decrease in physical and verbal outbursts, especially among children with autism and emotional disorders. We have an accompanying story that supports our "calm down" castle that children can say to reinforce what they need to do to be calm. The story is illustrated with kid-friendly artwork for the children to enjoy.

Diversity and Socialization

For young children to interact in an environment of increased diversity, the norms of socialization have undergone a shift. Foremost, more diverse family constellations have changed the perspectives on child development. Traditional upbringings of children by biological parents and traditional gender roles has given way to a more ecological perspective where children and their parents live in different family structures which juxtaposes a child's emotional bonding to biological parents with a broader sociocultural and economic background. The impact of family diversity on socialization and child development has been studied within the context of family structure (Patterson & Hasting, 2007). It has been found that the quality of the relationships between the child and those who are their main caregivers and the access to resources are greater predictors to successful socialization than the type of family structure. Related to a successful socialization is the quality of care provided out of home and the level of stress which specific family structures produce within the child. For instance, children growing up with young single mothers with considerable lack to resources are at a higher risk than those living with a single parent with a strong social network and better access to resources (Gringlas & Weintraub, 1995). However, when low-income and middle-income single parents experience stressful life situations, the risk level for children from both family structures goes up (Weinraub, 2002).

Research of more diverse family structures on children's development becomes a critical factor for early childhood programs and schools not only in terms of engaging successfully with the family, but also in assessing young children's ability to cope with the given family structure in which they find themselves. Maryland has adopted model programs (listed in Chapter 3) to support families.

A direct approach to children's socialization has been fostered through an extensive outreach of addressing the social and emotional needs of young children by the Center for the Social and Emotional Foundations for Early Learning (CSEFEL).[12] Through training of child care and public school teachers, early learning programs are infused with appropriate socialization strategies for children, birth to five years. The Social and Emotional Foundations for Early Learning (SEFEL) model focuses on helping children to understand routines, transitions, peer relations, and managing their own behaviors. The Maryland State Department of Education has been assisting early childhood programs in implementing the SEFEL model. (www.marylandpublicschools.org/msde/divisions/child_care/docs/EarlyChildhoodSEFELTraining.pdf; www.marylandlearninglinks.org; www.theinstitute.umaryland.edu/sefel)

12 Center for the Social and Emotional Foundation of Early Learning (CSEFEL), a federally funded project and first operated by Vanderbilt University

SOCIAL AND EMOTIONAL FOUNDATIONS FOR EARLY LEARNING (SEFEL)

SEFEL is a nationally recognized framework of evidence-based practices that support the social and emotional development and school readiness of children birth through age five. In 2012, twenty-two of twenty-four school systems in Maryland used the SEFEL framework.

The SEFEL Pyramid Model is organized around universal promotion, secondary prevention, and tertiary intervention practices that can be incorporated into everyday routines and relationships.

- Universal promotion includes practices that ensure the promotion of social development of all children.
- Secondary prevention includes targeted supports for children who are at risk of challenging behaviors.
- Tertiary intervention includes individualized and intensive interventions to the very small number of children with persistent challenges.
- A competent, confident workforce of early childhood educators is the foundation of the SEFEL Teaching Pyramid.

TIPS FOR EARLY CHILDHOOD EDUCATORS

USING LARGE GROUP TIME TO TEACH POSITIVE SOCIAL INTERACTIONS

Social interaction skills are:

- Getting a friend's attention
- Sharing objects
- Asking peers to share objects
- Providing a play idea to a peer
- Saying something nice to a friend

Skills can be taught by:

- Explaining the skill
- Demonstrating the correct way to use it
- Demonstrating an incorrect way and letting the children figure out what step was missing
- Letting a child practice a skill with an adult
- Letting a child practice a skill with another child
- Providing positive feedback and attention on use of the skills

Source: http://csefel.vanderbilt.edu/briefs/handout8.pdf

TIPS FOR EARLY CHILDHOOD EDUCATORS

FOSTERING AN AWARENESS AND APPRECIATION OF DIVERSITY IN EARLY CHILDHOOD PROGRAMS

Overall, skilled early childhood educators should take responsibility to understand the demographics of the children and families in their program and design opportunities that enable all to participate to their fullest.

- Gather information about the children before they start the program/school to help them feel more comfortable.
- Help children understand and value diversity in all of its forms.
- Prepare a classroom environment that is filled with opportunities (e.g., art, music, books) to appreciate diversity.
- Plan activities that are accessible to all children.
- Invite children to bring materials from home that can be shared with their peers.
- Read books that encourage children to identify with the characters.
- Use CSEFEL Scripted Stories to help children understand social interactions, situations, and expectations.
- Offer families opportunities for sharing their customs, traditions, and songs with the children.
- Honor children's home languages by providing books and labels in the children's first language, encourage the children to teach the class words in their language, and invite parents to create recordings of familiar books in the home language, and place the recordings in the listening area for all children to enjoy.
- Encourage families to participate in special events and cultural celebrations in the community (e.g., Special Olympics events, Cinco de Mayo celebrations).
- Create beginning of the year supply lists that are affordable for all families.

FAMILY VOICES

My daughter was born with spina bifida. When my doctor told me I was carrying a child likely to have a neural tube defect, I panicked. As I often do when presented with a challenge, I went straight to the library and read everything I could get my hands on - books, journal articles and websites. While I was still fearful, I felt more in control and adamant that I would do everything I could to ensure my baby would have the necessary support and reach her full potential.

When it was time for kindergarten, I knew I needed to let my baby go, but it was hard. I was her teacher and the most important person in her life. I was fearful and wondered: Would the teacher see Malia for the brilliant, talented child she is, or would she see her as a disabled kid in a wheelchair? How would Malia's classmates relate to her?

I was so happy when Malia's teacher – Ms. Alum -- called me in for a one-on-one meeting the month before school started. I talked about Malia's disability, how smart she is, and how much I want her to be part of an inclusive environment...but how fearful I was that she would be shunned by peers. Ms. Alum shared with me how she creates an inclusive environment that values diversity, and strategies she uses to help children build respectful relationships with each other. She invited me to bring in things to the classroom that would help Malia feel comfortable, and together we brainstormed some books about children with disabilities for the class library.

That first positive meeting with Ms. Alum was followed by regular check-ins at drop-off and pick-up. She called me at the end of the second week to get a full account of how things were going from my perspective. She seemed very aware of Malia's cognitive strengths as well as her physical limitations, but sent a clear message that those limitations will never stand in the way of a quality learning experience for Malia. Ms. Alum was just as much the advocate for Malia as I.

TAKE TIME FOR SELF-REFLECTION...

How do you create an environment in your program where children learn the value of diversity in all of its forms? What strategies do you use? What else might you try?

What does culture mean to you? How does your culture differ from the culture of those around you or the children in your program/classroom? What do you do to understand the perspectives of people with different cultural backgrounds? Do you have a bias? How do you cope? Whom can you turn to for help to understand cultural differences?

How do you ensure children in your class develop awareness and appreciation of a pluralistic society? What do you to do help them think about people with backgrounds that are different than theirs? What activities, tools, and books can you use to grow global awareness among the children?

What are some of the obstacles you have faced in the past when incorporating diversity in your lessons? Can you identify resources that may help you overcome these obstacles in the future?

How do you make sure that children with special needs are fully included in the learning experiences and that they are valued for who they are and what they contribute to the community? What else might you try?

What have you done (or might you do) to ensure the environment is welcoming for all families of different cultures, religions, or economic backgrounds? How will you engage them?

What do you do when a family has expectations that are different than yours? Who can you turn to for help to understand how to handle the differences?

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WEB LINKS

CAST Universal Design for Learning
www.cast.org

Center on Social and Emotional Foundations for Early Learning - Scripted Stories
http://csefel.vanderbilt.edu/resources/strategies.html#scriptedstories

ColorinColorado
http://www.colorincolorado.org/

Connect: The Center to Mobilize Early Childhood Learning
http://www.hdi.uky.edu/Contents/Item/Display/57

Early Childhood Technical Assistance Center
http://www.ectacenter.org

Head Start Center for Inclusion
http://eclkc.ohs.acf.hhs.org (type inclusion in search box)

International Children's Digital Library
http://en.childrenslibrary.org/

Johns Hopkins University Center for Talented Youth
http://cty.jhu.edu/ctyonline/about/

Kids Count
http://datacenter.kidscount.org/

Maryland Primary Talent Development Early Learning pre-K-2
http://www.marylandpublicschools.org/MSDE/programs/giftedtalented/ptd/

National Association for the Education of Young Children
http://www.naeyc.org

National Professional Development Center for Inclusion
http://npdci.fpg.unc.edu

One Nation Indivisible
http://www.onenationindivisible.org/

PBS Precious Children
http://www.pbs.org/kcts/preciouschildren/diversity/

Project Implicit
https://implicit.harvard.edu

Second Step
http://www.secondstep.org

Center on the Social and Emotional Foundation of Early Learning
http://csefel.vanderbilt.edu/resources/what_works.html

SpecialQuest Multimedia Training Library
http://ncoe.pointinspace.com/trainingmaterials/

Teaching Tolerance
http://www.tolerance.org/

The Upside Down Organization
http://www.upsidedownorganization.org

WIDA
http://wida.us/standards/eeld.aspx

CHAPTER 5:
THE IMPORTANCE OF PLAY AND SUBJECT MATTER FOR TEACHING YOUNG CHILDREN

This chapter discusses the importance of play in developing social emotional and executive functioning skills, and in laying the foundation for cognitive and academic success. It reviews subject matter in the context of Maryland's Healthy Beginning guidelines, the Early Learning Standards and the Maryland College and Career-Ready Standards using the domains of child development and early learning: social foundations, language and literacy, physical well-being and motor development, the arts, and the cognitive areas of mathematics, science, and social studies. The chapter features VIOLETS and PEEP and the Big Wild World™, as examples of programs that support the subject matter being taught to young children.

◆ Helpful terms ◆ Play and cognitive/academic learning ◆ Subject matter and the Early Learning Standards Domains ◆ Resources and web links ◆

HELPFUL TERMS	
Onset	Onset is the initial single phoneme in a word. (e.g., H as in hat)
Phoneme	Phonemes are the separate individual sounds of each letter in a word. They are the smallest unit of sound. (e.g., /h/-/a/-/t/)
Rime	Rimes are the set of phonemes in a word following the initial consonant cluster. They are helpful in rhyming words. (e.g., at)
STEM	STEM refers to science, technology, engineering and math learning opportunities.
Subitizing	Subitizing is the ability to immediately recognize a quantity when counting objects.
Thinking Skills	Thinking skills include inquiry, logical reasoning, critical thinking, problem solving, collaboration, and hands-on investigation, to name a few.

Young children are born ready and eager to learn. They delight in new discoveries that become more and more complex as they mature – reaching out to touch an object, dropping a ball and watching it bounce, buttoning a sweater, learning a song, writing their name, reading a book, conducting a science experiment. The role of the early childhood educator is to create the opportunities that allow these discoveries to occur. These discoveries make children fall in love with learning and give them a sense of accomplishment for their individual achievements. It is not by chance that this happens; it is intentional.

Play and Cognitive/Academic Learning: The Great Debate

The importance or value of play and its relationship to academic learning is an issue that educators and even people outside the field of education have long debated. Recently with the emphasis on school accountability, a growing number of prekindergarten and kindergarten educators are grappling to balance learning that is developmentally appropriate with a more academic approach that emphasizes teacher-directed learning. The influence of academic testing in the upper elementary grades is a factor that often triggers this debate. In some instances, educators have to defend the importance of play and the use of learning centers in a learning environment that increasingly emphasizes a traditional approach to measuring academic success by relying on results from standardized testing. Meanwhile, new research continues to provide evidence that playful learning

supports social foundations, the development of executive function skills and impacts cognitive development.

Research has recognized the importance of social emotional and linguistic development in early childhood education. Studies have consistently shown that young children's attention, self-regulation, and social behaviors are as important as cognitive abilities when seeking predictors of later academic success (Blair &Razza, 2007; Claessens, Duncan, & Engel, 2009; CCSSO, 2011; Duncan et al., 2007; Harvard Center on the Developing Child, 2004; Ladd, Birch, &Buhs, 1999; Raver &Knitzer, 2002; Zhai, Brooks-Gunn &Waldfogel, 2011).

Discussions inadvertently portray play and academics as being opposite of each other. Pitting a play-based approach against an academic approach is actually a false dichotomy (Zigler, Gilliam, & Barnett, 2011; Hyson, 2003). Play is not the flip side of academics. Just as play is not void of learning or academic skills, academic activities can include play or game-like activities. Fountas and Pinnell (2011) are blunt on the value of play and its impact on developing language; "Language and play are the child's major tools for learning everything about the world." (p.21)

The real issue is how and when to implement play and academics in an approach that supports the development of children. How can educators intentionally use play to enhance children's learning in a child-directed environment that encourages choice, negotiation and curiosity?

Free and guided play: A distinction can be made in the definition of play when considering whether it is free or guided play. Free play is the time that children spend in a less structured setting and are able to independently initiate and practice activities or games. Recess is an example of free play. While the children certainly benefit from activities promoting motor and social skills, and may have opportunities that encourage exploration of language, math and science concepts, there is a higher degree of independence and choice.

Guided play is initiated by the educator and is more structured. Learning centers (e.g., traditional or literacy) are examples of guided play. The skilled educator ensures that play is purposeful and serves as a vehicle for practicing skills or learning concepts taught in a more structured setting. Thus, guided play promotes the development of social foundation skills as well as academic skills. Both types of play are valuable and critical in the development of children. In fact, the National Association for the Education of Young Children has listed play as one of its twelve principles of child development and learning on its website: http://www.naeyc.org/dap/12-principles-of-child-development.

> "Play is an important vehicle for developing self-regulation as well as for promoting language, cognition and social competence."

Skilled early childhood educators know the importance of learning centers in helping children develop skills in self-regulation (e.g., behavioral, emotional, attention), taking turns, listening, building confidence and forming relationships. Children are able to learn and practice persistence, initiative and independence as well as academic (e.g., language, math, science, social studies) and physical (e.g., fine and gross motor) skills in a purposeful environment that encourages curiosity and creativity. These skills and traits are found as the social emotional and approaches to learning/ executive functioning strands of the social foundation skills on the Ready for Kindergarten (R4K) Early Childhood Comprehensive Assessment System and are also a part of the Healthy Beginnings and Head Start Child Development and Early Learning Framework.

Social foundation skills are critical to development during early childhood because they connect directly to success in school, college and career. They also provide the base for 21st Century skills of collaboration, cooperation and critical thinking in adolescents. Young children grow and, eventually, have to be able to work effectively with others,

with distractions, and amongst multiple demands. The same traits (e.g., persistence, initiative, self-regulation and independence) that are developed through play have a later impact on adults and their motivation.

Motivation is a key factor in the success of children and adults. Daniel Pink (2011) identifies different levels of motivation. The familiar type of motivation revolving around external rewards and punishments (carrots and sticks), was found to often extinguish intrinsic motivation, diminish performance, crush creativity and decrease positive behavior. Instead, a higher level of motivation (Pink describes as being Motivation 3.0) is geared toward the inherent satisfaction of the activity itself, not with the external reward. Such a person is interested in autonomy (e.g., wanting control and choice over the task) and being self-directed. Businesses are now realizing the benefit of having such employees. Another critical element in Motivation 3.0 is allowing the person time to pursue self interests – something that is nurtured and developed during playful learning and center time. These qualities play a critical role throughout schooling in preparing students for college and career readiness.

Subject Matter and the Maryland Early Learning Standards

The subject matter in this chapter combines the content from the Maryland College and Career-Ready Curriculum and the Maryland Early Learning Standards. Together, early childhood educators are able to view the breadth of content and skills over an age range. Although, much of the information is geared more for children beginning at age four, it will be useful road map for educators of children of all ages.

The Maryland Early Learning Standards define the key aspects of development and learning that are the foundation for a child's school and life-long success. The standards from the Head Start Child Development and Early Learning Framework, and Healthy Beginnings: Supporting Development and Learning from Birth through Three Years of Age were used, along with the Maryland Prekindergarten College and Career-Ready Standards,to promote a common set of expectations for children across all early childhood programs.

Each Subject Matter is listed as a Domain (previously discussed in Chapter 2). The seven domains match the areas of development on the Kindergarten Readiness Assessment (KRA). English Language Arts is combined with the Domain Language and Literacy heading due to the extensive and progressive information shared in the areas of speaking, listening, reading, writing and language.

Early childhood educators through intentional engagement with learning materials, play, student-directed learning, and teacher-directed instruction, provide opportunities for children to practice the skills and concepts of the domains. Though the domains are presented separately, the skilled early childhood educator knows the importance of creating learning opportunities that are integrated across domains.

Social Foundations

A large part of learning in the early years focuses on the development of social and emotional skills. When children have strong social foundations, they

are better able to engage in constructive learning experiences, acquire strong study skills, and better organized when they learn. When they do not have these skills, they are often not ready for learning, regardless of grade.

A key to strong social foundations is healthy and dependable relationships. Skilled early childhood educators help young children learn how to develop healthy relationships with adults and other children. Feeling understood and accepted is important for all children, but especially for those who are English language learners, as acceptance helps to alleviate unnecessary anxiety and clears the way for learning. Skilled early childhood educators help children create a sense of positive personal identity. Further, they help children learn how to regulate their behavior and emotions.

Approaches to learning and executive function are also key ingredients of social foundations. Many early childhood experts view these as the most important skills developed during the early years (National Scientific Council on the Developing Child, 2007). This includes those skills that facilitate and support the process of learning, such as a child's willingness to initiate, engage, sustain participation in different learning activities, and the ability to demonstrate control, so that they can remain on task in the face of distractions and comply with rules, routines, and expectations. It includes working memory, which enables children to hold information in their mind and recall it when needed. These skills also include cognitive flexibility, which enables children to engage in problem solving, symbolic representation, and the like.

Throughout the day, skilled educators look for ways to introduce and extend exposure to the types of social foundation skills that will serve children long into the future. This includes teaching children about:

- **Initiative:** taking steps to begin a task;
- **Planning:** thinking about how to proceed;
- **Problem solving:** considering and attempting a variety of approaches to reach a solution;
- **Persistence:** keeping at a task even when faced with obstacles;
- **Reflection:** taking time to think about what has just happened;
- **Self-confidence and competence:** feeling competent and proud of achievements;
- **Community:** demonstrating a commitment to building relationships and working with peers;
- **Empathy:** expressing compassion and concern for others; and
- **Conflict resolution:** being able to find and honor solutions to social conflicts.

Educators' Voices: Kaleb, a thirteen-month-old boy in a toddler classroom, was picked up and dropped off by many caregivers each day – his parents, grandmother and family friends. On many days, Kaleb would cry all day and appeared agitated. We tried hugs, singing and reading, but could do very little to comfort him. Realizing that he might not have a sense of routine or predictability, we emphasized the use of diaper changing, meals, and naps as key times during the day to talk with him, reassure him that we would meet his needs, and respond empathetically to his crying. Infants and toddlers, who experience consistent care, learn to trust themselves and others. We met with his family to talk about Kaleb's difficulties and the importance of predictability and attachment for infants and toddlers. We asked the family if it was possible to limit the number of people picking up and dropping off until Kaleb could become more comfortable with the process and to tell him each morning who is picking him up. We agreed to communicate with each other at the beginning and end of each week to discuss Kaleb's progress. After several weeks of consistency with the changes in the classroom and at home, Kaleb seemed more comfortable and relaxed. He cried less frequently during the day and began to explore the classroom and materials.

Educators' Voices: Natalie was always quiet during circle time and never raised her hand. I tried many different strategies to draw her out, all to no avail. I spoke with the family and asked if they had ideas for what we could do to draw her out. Her father had an idea – they were planning a trip to the National Aquarium in Baltimore this weekend and he would talk to her about sharing their adventure with the class. On Monday morning, Natalie and her father arrived and, together, they shared with me some photos on his iPad from their weekend adventure. She quietly agreed to share them at circle time, and we downloaded the photos to my computer so we could share them later. Her father gave me a thumbs-up as he exited the room. We gathered in circle and after several other children shared, I made eye contact with Natalie and she slowly raised her hand to be recognized. Natalie agreed to let me show her photos using the projector. The children saw the photos of Natalie at the aquarium and shouted "Nemo." At that point, Natalie stood up and started talking about how beautiful the clown fish was and how it would hide behind the coral. The excitement of the other children and the visual images helped her to open up. This was a turning point. Natalie continued to be one of the more quiet students in the class, but she seemed more comfortable speaking out, raising her hand, and sharing her thoughts.

Physical Well-Being and Motor Development

Early childhood educators play an important role in helping children demonstrate self-care, such as washing hands and hanging up their coat, and with following basic safety rules. Educators also help facilitate the physical development of young children by providing opportunities for motor development – both gross and fine motor – that are foundational for developing pre-writing skills, and for instilling routines that promote healthy lifestyles.

Gross Motor

Children progress through stages of gross motor development, from giving babies time on their tummies to develop strength in their trunk, to learning to roll, scoot, sit, crawl, and pulling-up of the mobile infant, and walking, climbing, running, pedaling, and jumping as they progress through toddlerhood and into elementary school.

All children in programs need daily recess and outdoor time so that they can work on gross motor skills, connect with nature, and develop social foundation skills. Frequent gross motor development breaks through the day – occurring both indoors and outdoors – are important. A quick game of Simon Says can wake up a group of children and get their brains ready to learn before a challenging lesson.

Skilled early childhood educators know that rigorous play gives children a chance to discharge energy and join with their peers in developmentally appropriate interactions. This also holds true for children with disabilities. As such, educators should ensure that adaptive play experiences and materials are available that promote the physical development of children who might have a range of challenges.

Educators' Voices: I have a set of vinyl covered foam wedges that I put in one area of my home-based day care program. The older children like to rest on them while reading, but I really have them for the little ones to develop this gross motor skills. The two babies in my program are similar in age and development and often explore side-by-side seeming to encourage each other along. The other day I put the wedges together with the high edges meeting forming a ramp going up and down. I put one baby on each side of the wedge and encouraged them to climb to the top. Of course, it is not a steep climb, but a good workout for them nevertheless. Oh, you should have seen the joy when they reached the peak and saw the face of the other baby.

Educators' Voices: My kindergarten children work non-stop during recess to develop their gross motor skills. Our playground is designed with spaces that facilitate learning and development. We have structures for them to climb, slide, and swing. There are tunnels they can crawl through, a sand box for digging, and obstacles that they must learn to navigate. We even have an outdoor construction area with wooden blocks of many shapes and sizes so that they can build. Using their imagination and gathering skills, they can add items from the natural environment – leaves, twigs, sand, and pine cones – to the block structures. And we have standard equipment that facilitates gross motor development – jump ropes, balls, ride-on toys, and so much more.

Fine Motor

As young children learn to control muscle movement and coordinate with eye-hand development, they become skilled at progressively more challenging fine motor tasks that ultimately support pre-writing skills. From grabbing a chunky rattle to using the pincer grasp to pick up pieces of food on a plate, infants, then toddlers, begin to develop the muscles in their fingers, hands, wrists, and arms. Their skills become increasingly more precise as they go from holding a toy, spoon or cup, to scribbling, stacking blocks, cutting with scissors, using a zipper, buttoning and unbuttoning, stringing beads, tying shoes, using a peg board, making puzzles, writing with crayons and markers, and pouring from a pitcher. In the early elementary years, children become quite proficient with writing, drawing, coloring, cutting, and many even master using the keyboard to type, which combines fine motor and cognitive skills.

TIPS FOR EARLY CHILDHOOD EDUCATORS

PROMOTING GROSS MOTOR DEVELOPMENT

- Provide multiple opportunities for children to get physical activity during the day, using their large muscles for climbing, throwing, kicking, jumping, and swinging.
- Find ways to get children up and active in the classroom with aerobic, stretching, yoga, and meditation exercises.
- Ensure physical activities are inclusive and engaging for all children.
- Design the environment – both indoors and outdoors – so that children can develop gross motor skills in a natural and fun way.
- Challenge elementary school age children to walk, jog, and run, both at school and at home. Offer them a guide or record-book so that they can keep track of their progress toward a goal (e.g., 100 miles in a year).

Educators' Voices: The simple wooden puzzles with knobs are a favorite among the two-year-olds in my class. Over the past several months they have worked hard to master their pincer grasp – picking up chunks of cheese, pieces of cereal, and other objects of desire – and now, with those skills solid, they are fully into the puzzles. Tomika especially likes a puzzle that has three pieces – a boat, an airplane, and a train. He takes each piece out of the wooden frame, drives them around on the carpet. Very soon we will be able to move from the knobbed puzzles to flat pieces. Samantha is not as enamored with the puzzles; instead, she enjoys the chunky Duplo blocks and can spend lots of concentrated time connecting the blocks. I am observing her closely, and know that very soon it will be time for me to bring out the next size in the Duplo/Lego set so that she can continue to develop these skills.

Educators' Voices: My first graders do not realize that they are working on fine motor skill development when I have them signing in each morning, keeping a log of their independent reading, weaving placemats for a class celebration, looping string to make a pattern on a geoboard, or playing pick-up-sticks. Of course, there are times when we work specifically on penmanship skills, practicing the formation of letters so that their writing is clear and intentional, but many of the other activities are just as important in the overall development of their fine motor skills.

Personal Care and Safe Behaviors

Early childhood educators help young children learn about personal care by helping children establish routines such as regular hand-washing, by serving healthy snacks that build the brain and keep children fit, and by promoting independence with hanging up their coat or tying their shoes. Educators also know the importance of modeling basic safety rules (and the role adults play in keeping children safe), whether it is in the classroom, on the playground, or during a field trip.

Educators' Voices: My current toddlers are the best hand washers ever! Over the years I have tried many different strategies for promoting hand washing, from having an egg timer

TIPS FOR EARLY CHILDHOOD EDUCATORS

PROMOTING FINE MOTOR DEVELOPMENT

- Provide multiple opportunities each day for children to work on fine motor skills, using their fingers and hands for drawing, painting, writing, cutting, and pouring.
- Include fine motor materials in all centers.
- Remember that young children learn through repetition, so give them many opportunities to work on the same skills but with increasingly more challenging materials (e.g., from the chunky paint brush to the one that is more fine; from cutting construction paper to cutting tissue paper).
- Use foods that easily dissolve for fine motor practice with very young children to resolve any worry of choking hazards.
- Ensure fine motor activities are inclusive and engaging for all children.
- Integrate fine motor activities in all aspects of the curriculum so that activities are intentionally structured to enhance skill development.

at the sink so that they stay focused, posters demonstrating proper hand washing, and songs. This year, I decided to combine a few strategies and it has been the best. We started out by learning a simple song about washing hands -- "This is the way we wash our hands, wash our hands, wash our hands. This is the way we wash our hands, to keep them clean." In addition, I found some soap with a super lather and one sunny day at the beginning of the year, we set up a washing station outside. I snapped pictures as the children joyously washed their hands. We laminated the pictures and posted them around the mirror in the bathroom. The photos became a visual reminder of the fun they have washing and the importance of washing away germs and bacteria to stay healthy.

Language and Literacy/ English Language Arts

Play serves as a vehicle for children to develop their oral language and is a springboard for reading and writing. Children make sense of the world through interaction and play. A print-rich environment with pictures, labels, words, shared reading and writing activities stimulate and promote communication.

Language and literacy instruction in early childhood is essential for establishing oral language skills and preparing young children for reading and writing. The strands found in the language and literacy domain are speaking and listening, language, reading and writing. Beginning at birth, early childhood educators engage children in planned activities designed to promote pre-literacy and pre-writing skills, so that they have a solid foundation for more formal reading and writing. Reading to children every day – both at home and in the early childhood setting – is essential. Reading increases children's receptive and expressive vocabulary. A vocabulary-rich environment in the earliest years provides children a boost for success in school.

Consider the facts:

- By age three, children from affluent families have heard thirty million more words than children from parents living in poverty (Hart and Risley, 1995).
- Children who have larger vocabularies and greater understanding of spoken language do better on measures of reading ability later in life (Snow, Burns and Griffin, 1998; Whitehurst and Lonigan, 2001).
- If children aren't reading on grade level by third grade, they are four times more likely to leave high school without a diploma (Hernandez, 2011).

Educators working in the public school system use the Maryland College and Career-Ready Standards and district materials for content knowledge and skills in English/language arts, math, science and the other content areas. Chapter 6 provides an explanation of the curriculum and its connection to the state standards. The curriculum itself can be found at: http://www.mdk12.org. The website also includes a toolkit, a project developed by the Maryland State Department of Education (MSDE) in partnership with local school system staff, with online resources such as lesson plans, lesson seeds and other items of interest. The information below contains a description of the specific areas and the relationship to early learning programs.

Speaking and Listening

Listening is the first language skill that newborns start to develop. The recognition of vowels and consonants (i.e., phonetic units of speech); has been studied for those growing up in a monolingual and bilingual household. Young infants develop associative patterns of speech from caregivers, which contributes to bonding and developing relationships (Kuhl et al, 1997).

Speaking skills among infants and toddlers develop with the support of those around them, including early childhood educators. From being able to understand what others are saying and

engaging in shared conversation, to being able to clearly present their knowledge and ideas, these skills develop over time with modeling, practice, and support. The skilled early childhood educator promotes opportunities for speaking and listening by modeling the role of the speaker as well as the listener throughout the day.[13] Engaging children in conversation, making eye contact and asking questions help children develop their speaking (and listening) skills. Children will learn how to take turns during a discussion and to ask questions. Educators will frequently have children work in pairs to share information, taking turns speaking and listening. Asking children to repeat what someone said to them can be helpful to develop their listening skills. Show and tell for preschoolers, or book reports for elementary school children, is often a forum to promote speaking and listening skills.

Educators' Voices: All day I intentionally work to build the oral communication skills of the infants and toddlers in my program. First thing in the morning, I greet them by making eye contact and speaking directly to them, offering a warm welcome using their name. I make eye contact when changing a diaper, and talk with them all the while, explaining what I am doing and taking time to say a rhyme or sing a little song. I pause so that they have a chance to respond and to learn the serve and return of a conversation. A mom stopped me one day and asked why I was talking to the babies when they could not understand what I was saying. I told her that the more we talk with and read to very young children, the more we develop their oral language skills and vocabulary. The research is very clear on this so I know that I am making a difference.

Educators' Voices: The children in my prekindergarten love to play a game that we call "rigmarole." It is simple. One person kicks off a story (e.g., A big black cat sat on a), and then says "rigmarole" and announces another person's name (e.g., rigmarole Hannah). Then Hannah picks up the story where the previous child left off. The play continues with the story being passed from one person to the next. All of the children have to listen carefully to keep track of the story and be prepared at any second to chime in with their own ideas for what should happen next. The children love this game so much that I heard from several parents that they are playing it while driving to school and even at the dinner table. It is contagious...a good kind of contagious that supports oral language development in a very fun and often hysterical way.

Reading

Speaking and listening are skills that are used extensively when reading. Children of all ages need exposure to diversity-rich literature and information text. Beginning with nursery rhymes and other favorites, early childhood educators know the importance of reading to children to cultivate an enjoyment of books. Educators engage children in conversation before starting a reading so that they can connect to prior knowledge, make predictions, and ask questions. During reading, educators pause and ask or answer questions both to clarify and to engage children in deeper thinking about what is being read.

The Curriculum identifies reading foundational skills, including print awareness and phonological awareness, as precursors for reading. Fluency, a third area of foundational skills is also important in providing children with practice in reading. Early development programs, as well as preschool programs, are instrumental in developing these skills.

13 The Maryland College and Career-Ready Standards include the use of Standard American English as one of the critical speaking skills as early as prekindergarten.

Print awareness and concepts – From the earliest days, children – including babies -- should have regular exposure to books. At the most rudimentary state, children learn how to hold books and turn the pages. As children mature, they recognize that words are read from the left to the right and from the top of the page to the bottom. They learn that spoken words are represented in print and that there are spaces in print between each word and punctuation to end thoughts. They begin to recognize and name upper and lower case letters of the alphabet.

Print awareness is not only about books. Early childhood educators help young children make connections to print in the environment as well. Children recognize stop signs, numerals on clocks, print on newspapers, magazines, and the computer. This serves as an incentive for children to learn to read.

Educators' Voices: I have an assortment of chunky books for the infants and toddlers in my family day care program. When I am reading a book to a child on my lap, I encourage them to hold the book with me and to help turn the pages. If I am reading a book to more than one child, I sometimes invite one to sit close and help me with the book. If a child seems fidgety, sometimes just giving the child their own book to hold helps to settle them. As appropriate for the developmental interest and stamina, I pause in my reading and talk with the children about the story, ask questions, interject sounds and point out (or ask the children to point out) things they see on each page. In doing this, I get the children to engage in new ways with the books.

Phonological awareness – Phonemic awareness and phonics are the elements of phonological awareness and precursors to emerging reading and writing skills. Phonemic awareness is the ability to hear, identify, and manipulate individual sounds – phonemes – in spoken words. A child hears three phonemes – /b/ /a/ /t/ -- in the word bat. Early childhood educators work strategically to help children understand the individual sounds, so that they can then apply those skills to phonics and word recognition. Phonics is the understanding that sounds and print letters are connected. Educators use systematic instruction where there is a deliberate and sequential focus on building relationships between sounds and letter symbols so that children can begin to decode new words. With phonics, the children are learning to identify and blend units of language together – words, syllables, onsets, and rimes. Single syllable words that rhyme are frequently used to teach phonics. For example, the word "get" is broken into its onset, the first letter(s) of the word that makes a sound (e.g., g), and its rime, the ending sound(s) of the word (e.g., et). Children are taught to substitute letters for the onset or initial sound of a word to make new words (e.g., met, net, set).

Skilled early childhood educators also help children develop recognition of sight words. They help children identify words quickly and automatically using decodable text that includes high-frequency sight words, as well as predictable stories that reinforce sound-letter relations. Educators frequently display common sight words on a word wall in their classroom.

Educators' Voices: We use many strategies to support phonemic awareness with the babies and toddlers in our program. We still talk and sing with the babies and use as much rhyming as we can to promote sound awareness. Some of our babies love "X Marks the Spot," both for the rhyming and the sensory aspect of the activity. Others enjoy "This Little Piggy Goes to Market." We have Mother Goose stories, rhymes, and other children's poetry that we read to the children every day. Of course, we also have child-friendly music that we play to support phonemic awareness.

Educators' Voices: Playing with words in prekindergarten is essential for laying a firm foundation for later reading. Singing songs and changing the beginning sound in a word is a powerful way to get children to play with the sounds of our language. Singing the familiar song

Bingo and changing the beginning sounds is a great way to get children to listen for that beginning sound. When I sing this song with my children at the beginning of the year, I tell the students that we are going to change Bingo's name. Instead of singing Bingo, we sing Zingo. I ask the children to make the sound they hear at the beginning of Zingo and connect to the key word pictures we have for the alphabet. Then we sing Zingo and spell out Z-I-N-G-O. The children never seem to tire of the song. "Shake My Sillies Out" is another great song to use in changing beginning sounds, so instead of shaking your sillies out you may be baking your sillies out.

Fluency - Fluency is the ability to read orally with accuracy, at an appropriate rate, and with expression. Once children learn to sound out words by blending the sounds and begin to memorize sight words, they are able to read words, sentences, and stories more fluently. Skilled early childhood educators are intentional about modeling fluency through read-aloud stories and point out what they are doing when they pause or change voice tone or speed. They work with children to increase their fluency by providing opportunities to read and re-read familiar stories, practicing new words before reading texts, and listening to texts read by adults or on tape. As children become more fluent readers, they will use the context of what they are reading to confirm or self-correct the words.

Educators' Voices: My kindergarteners love hearing their own voice. Knowing this, I introduced an activity where they can record themselves while reading a book in our listening center. The children return to the center often to hear their recording, and are always eager to make a new one. Their peers enjoy listening to each other's recordings as well. With each recording dated, I am able to use these to measure and document changes in fluency for the children, and to share with the family during conferences.

The curriculum identifies two types of reading: literature (i.e., narratives or stories) and informational (i.e., nonfiction, recipes). With each type of reading, children are exposed to a variety of genres, representing diverse cultures, perspectives and ethnicities.

Comprehension and vocabulary are important elements in reading. School-aged children are taught to read the text closely to develop their comprehension and to support their answers with evidence from the text. They are asked to provide details, make inferences, compare, analyze and summarize. Educators provide strategies and activities to build children's vocabulary. Asking children questions or having them make choices are examples of encouraging them to develop a deeper meaning of vocabulary (Beck, McKeown and Kucan, 2002). For example, having children explain which of the following words are examples and non-examples of the target word "enormous:" elephant, cat, bicycle and building.

Educators' Voices: Every day I work on vocabulary development with the toddlers in my program. I know that it is important that they have exposure to a rich vocabulary during the early years. Recently, I was on the floor playing with Precious and Juan. Precious pushed a car forward. I selected another car, made eye contact with Precious, and pushed my car forward saying, "vroom." Precious joined in, saying "vroom." Juan pointed and said, "Car." I nodded and pointed to the car I was pushing and said, "Red car." Juan paused and then pointed to Precious's car and said, "Car." I nodded and pointed to Precious' car and said, "Blue car." Then I reached into the toy bin and pulled out a fire truck and said, "Truck." Juan quickly grabbed it and said, "Truck, truck."

Educators' Voices: To encourage my second grade children to use Tier 2 vocabulary words from a reading selection, I developed a word bank in my writing center. Tier 2 words are those words that often appear across a variety of grade level texts, and connect to the understanding of other words and concepts. These words can be challenging for some students. When the children respond to literature or engage in other writing activities, they select words from

the word bank. When they use a word from the word bank correctly, they underline it in their writing. I give the children extra points for these words and announce a word bank "winner" each week. This encourages my children to incorporate more challenging vocabulary words into their daily writing.

A very common teaching strategy in early childhood or elementary classrooms is reading stories to young children. It has been well-established that just reading a story, taken from the book shelf, to a group of young children is less effective as putting the story in the context of reading comprehension and vocabulary development.

Read-Aloud Teaching Strategies for Deeper Meaning

Part 1: Before Reading Aloud

Consider the speaking vocabulary of the class. A read aloud text should engage students at the edge of their speaking vocabulary, usually a grade or two above their grade-level.
Among text options, select based on relevant criteria below:

- Will students enjoy it?
- Is there a big idea or theme to explore?
- Are there opportunities for thinking deeply?
- Do students have necessary background knowledge?
- What are the vocabulary demands?
- Are the illustrations compelling?
- Do the story and the illustrations present cultural diversity?

Consider the deep understandings you want to support students in reaching through discussion. What is a "big idea" you want students to explore?

Working backward from your big idea, write open-ended questions on sticky notes or in the margins in the places you want students to discuss them. Develop questions that will support student discussion and depth of thought as they move in the direction of this big idea. This isn't a search for "right answers," nor does it eliminate the possibility of other ideas surfacing during discussion. This guiding idea is simply a plan for supporting thoughtful discussion.

Examine the vocabulary in the text. Are there words that students must know to arrive at understandings around the "big idea?" Develop a plan for introducing words quickly before or during reading.

Practice reading the text aloud.

Part 2: During & After Reading (four parts)

Introduce preliminary vocabulary. Don't spend too much time on this.

Read the text aloud fluently, stopping to ask the questions you wrote during planning. Allow students to discuss them with partners and then share out with the group. Continue this process until you reach the end of the story.

After reading, support deeper conversation in the direction of the big idea. Support students as they mine for connections and push for deep thought, particularly around the big idea.

Make the text available for shared, guided, and independent reading opportunities. Locate related texts for sharing with students.

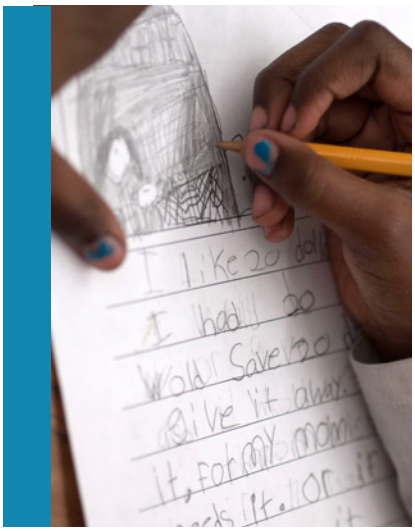
Source: http://www.readwritethink.org/professional-development/strategy-guides/teacher-read-aloud-that-30799.html

Writing

As soon as children can hold a chunky crayon, a marker, or other writing implement, they are able to begin to express themselves in writing. From a scribble to a carefully crafted lowercase letter, the skills for writing, as well as, the concept of communicating information via written expression, are gradually and systematically developed in children during the early learning years. Skilled early childhood educators make writing a part of every center in the classroom, so that children have many opportunities throughout the day to practice. For example, children can be encouraged to write a shopping list in the dramatic play area. Educators make it so that writing is not a laborious task of practicing perfect penmanship but, rather, an effective means for expressing ideas that can be shared with others.

Skilled early childhood educators begin instruction about writing by helping children understand that thoughts and ideas can be represented in drawing and writing and that those convey meaning. The very young children are encouraged to express ideas using shapes, symbols, drawings, or dictating words and phrases. Asking children to write the letters or sound they hear encourages inventive spelling. The educator uses "adult writing" when a child is dictating the words.

As children progress in school, they will gain experience with the three types of writing: narrative/story, argument/opinion, and informative/explanatory.



Educators' Voices: I have writing tools in every center in our prekindergarten class so that children can have many opportunities throughout the day to put their ideas on paper. They use marks, scribbles, stamps, stickers, and many other items to record their thoughts. I encourage the children to share their papers with me so that I can admire them and ask questions about what they have recorded. Sometimes the children will dictate a sentence to me about their work that I will then record on the back of the paper so that the family has a sense of the work the child produced as well.

Language

Skilled early childhood educators work with young children on developing the conventions of standard English and a rich vocabulary, so that they will be able to effectively communicate both orally and in writing. Speaking in complete sentences and encouraging children to extend or elaborate on their responses helps build their vocabulary. Educators work with children to teach them how to hold a pencil in their dominant hand, print upper and lower case letters, and use the proper parts of speech when speaking and writing. As with writing; grammar, spelling and punctuation are taught to children when developmentally appropriate.

Educators' Voices: I have been implementing the VIOLETS program for the past two years in my prekindergarten classroom where many of the children are English Language Learners. I am always pleased to see how quickly the children pick up and use the new vocabulary in their conversations and during play. Just the other day, I shared The "Napping House" (Audrey Wood), which introduced the word "cozy." Later that day as Jasmine was getting ready for nap, I saw her smiling as she pulled up her blanket and snuggled under it on her cot. Then I heard her tell her classmate that she was nice and cozy under her blanket. I find that VIOLETS is an excellent program for building children's oral language development. I see the evidence of language growth every day. The parents see it too, and regularly comment to me on the new words their children are using in their everyday vocabulary.

A MARYLAND INITIATIVE VOCABULARY IMPROVEMENT AND ORAL LANGUAGE ENRICHMENT THROUGH STORIES PROGRAM (VIOLETS)

Maryland's Vocabulary Improvement and Oral Language Enrichment through Stories (VIOLETS) program is an early childhood program designed to develop oral language, pre-literacy skills, and background knowledge in English Learner children and children with low expressive language skills. VIOLETS uses big book versions of popular children's books, chosen on the basis of their quality, their appeal to young children, and the extent to which their content aligns with state pre-K standards in the domains of physical development, language and literacy, social foundations, mathematical thinking, scientific thinking, social studies, and the arts.
In the VIOLETS approach, carefully selected vocabulary words and idiomatic expressions that occur in the stories are taught before, during, and after story reading. In addition, paraphrasing and questioning techniques are employed during reading to further develop students' oral language proficiency and background knowledge. The program also includes the presentation of 'core knowledge' themes that tie the book to state standards. A language awareness component introduces pre-reading skills and concepts of print.

The VIOLETS program contains CD audio versions of the children's books read in English and Spanish. The CDs are used in a listening center, in conjunction with smaller copies of the books, to help Spanish-speaking children prepare for the English read-aloud.
In addition, a website with recommended extension activities is available. The purpose of the extension activities is to reinforce the vocabulary and concepts introduced in the

lessons through additional engaging activities that involve writing, drawing, singing, and games.

The VIOLETS program spans twelve weeks, featuring one book each week. The scripted lessons have been systematically organized to follow a consistent daily schedule (20-minute segment) that can be integrated in the classroom curriculum, making it a supplement to the existing literacy program used in the classroom.

Note: Ready at Five, with the consultation of Dr. Diane August, developed VIOLETS with support from the Maryland State Department of Education through a federal Child Care and Development Grant. The VIOLETS program has been implemented in hundreds of classrooms throughout Maryland. For more information about VIOLETS, visit www.readyatfive.org or contact Ready at Five at info@readyatfive.org or call 410.788.5725.

Mathematics

Everyday examples of math are all around children. Skilled early childhood educators know how to create opportunities for the children to learn and manipulate mathematical ideas and concepts through play, exploration, and analysis. They are aware of how to build on children's experiences. From talking with a baby about how her purple socks match the flowers in the vase, to counting the floor cushions with toddlers as they put them away following story time, to sketching the shapes found in the interior of the gymnasium with second graders, the opportunities to intentionally incorporate math into everyday learning across the curriculum are countless.

A report by the Institute of Education Sciences (2013) at the U. S. Department of Education, Teaching Math to Young Children: A Practice Guide, has listed five recommendations that use children's natural interest in math to enhance their experiences in preschool and school. These recommendations are in alignment with Maryland's College and Career-Ready Standards and the joint position statement from the National Association for the Education of Young People (NAEYC) as well as the National Council of Teachers of Math (NCTM).

Establish number and operations as a foundational content area. Provide opportunities for teaching number and operations through a developmental progression (i.e., the order of skills and concepts that build upon one another). Children should have experiences in subitizing (immediately recognizing a quantity when viewing or counting objects), counting and using numerals to quantify collections.

Incorporate math in other content areas. Geometry, patterns, measurement, and data analysis, as well as number and operations should be infused in language arts, science, social studies and other content areas.

Use progress monitoring to guide instruction. After determining children's level of knowledge, tailor the instruction and monitor it throughout the year.

Focus on teaching children to view the world mathematically. Use open-ended questions and conversation to emphasize math in everyday

situations. Math vocabulary and symbols can be linked only after informal methods have been used to represent math concepts.

Set aside time for daily math instruction. Educators should provide math instruction daily and look for ways to incorporate math across the curriculum.

Exposing children to mathematical concepts in a developmentally appropriate way at a young age prepares them for mathematics learning and attitudes as they advance through school. The mathematical domain in the Kindergarten Readiness Assessment is aligned with the domain of the Maryland College and Career-Ready Standards. The four strands of the domain, as described below, are counting and cardinality, operations and algebraic thinking, measurement and data, and geometry. A fifth area, Numbers and Operations in Base Ten, is listed just on the state standards. For additional information on each of these areas, visit: http://www.mdk12.org.

Counting and Cardinality

Much like in literacy, where the goal is for children to find meaning in what they have read, in math, children are making meaning of numbers. Children can learn to count by rote, but skilled early childhood educators know that they need to help children understand what five or ten or thirteen means. Cardinality, or the ability to know how many are in a set, is a skill that is used in many ways. Learning occurs through instruction, play, storytelling, and hands-on exploration.

Educators' Voices: I work to build mathematical vocabulary and concepts into my interactions with the children throughout the day. Math is a major part of the discussion when children report on their morning jobs. From reading the thermometer and announcing the temperature, to counting how many days have passed during the month and feeding the fish just three dashes of food, the children are using and communicating with numbers. In more structured math activities, the children are able to match a set with a number card that states its quantity. They come to understand that the quantity of a set does not change, no matter how the objects of the set are displayed.

Operations and Algebraic Thinking

Once children have a sense of numbers and their relationship to each other, they are able to learn about comparing quantities and how numbers can be changed. They learn that addition is "putting together" or "adding to" and subtraction is "taking apart" or "taking from."

Educators' Voices: My kindergarteners are pros at solving word problems. Every morning during circle, I toss out a word problem for them to consider. One morning, I asked., "If we took eight books out of the library but only returned four, how many do we still have?" Sometimes they work in pairs to discuss the solution; sometimes they work independently drawing a visual of the word problem or using manipulatives to act it out. I don't always want to be the one posing math problems, so a few times a week, I invite a child to prepare a word problem that they can share with the class. They are always so happy to work on a "really tricky" problem for their classmates.

Numbers and Operations in Base Ten

Skilled early childhood educators work with young children to investigate the relationship between ten ones and ten. By kindergarten, they help children compose and decompose numbers from eleven to nineteen. This concept helps children understand place value and properties of operations.

Educators' Voices: In my kindergarten class, the children use Digi-Blocks, base ten blocks, and linking cubes to explore the relationship between ten ones and ten. The other day I observed Zack and Johnny working side by side. Zack made a tall tower of ten linking cubes, and Johnny made two towers of five linking cubes. Zack said "I have ten." Johnny said, "I have ten too." Zack looked puzzled for a moment and then Johnny said, "see Zack, if I put the two towers

together, it's ten, just like you." I quietly joined their play and made five towers of two cubes. Once Zack had processed Johnny's work, I asked the boys to look at my cubes. We talked about how many towers I had, and how many cubes in each tower. We counted the total number of cubes. Then we connected the towers and again counted the total number of cubes. We lined it up next to the other towers and the boys could see that it was indeed ten. Both boys left the exercise with a better understanding of base ten.

Measurement and Data Analysis

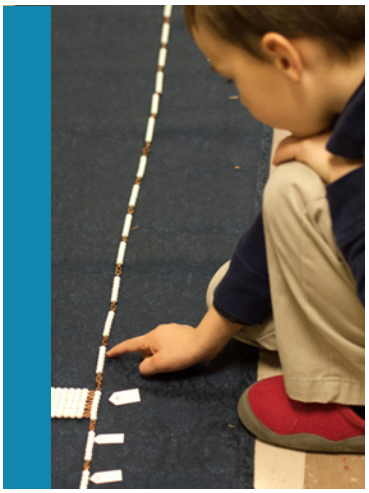
Young children begin exploring with measurement and data at an early age. They describe and compare things, focusing in on which one is bigger or smaller, heavier or lighter. They sort objects into categories and compare quantities. As they grow older, they use standard tools for measurement, learn to represent data in graphs, and analyze the data. Educators provide opportunities to explore with data analysis, but they do it in ways that are developmentally appropriate and build on prior knowledge.

Educators' Voices: Measurement is one of the children's favorite units in our prekindergarten math class. The children are up and active as we use lengths of yarn to measure everything from the size of the tabletop to the height of the bookshelf. Children lay down on butcher paper, a classmate measures the length of their body, and then the child uses the yarn to see how tall they are. We then go outside, put all of the outlines on the ground from head to toe, and measure the length of the total class. Measurement goes beyond comparing what is longer or shorter. For example, at snack time, the child serving milk practices pouring half a glass for the children at her table. There are so many opportunities for the children to practice measurement.

Geometry

Skilled early childhood educators know how to teach children about shapes and spatial awareness. They provide opportunities for children to explore and describe two and three dimensional shapes. An understanding of the common attributes of shapes and the relationship between shapes is important as they construct new shapes. Children are encouraged to analyze, compare, and create shapes.

Educators' Voices: We have many manipulatives in our toddler room that the children are able to explore with to learn about shapes and measurement. Two of the all-time favorites are stacking (or nesting) cups and a shape sorter. The children enjoy building a tower with the nesting cups and seeing how many they can stack before it falls over. The shape sorter gives some children long periods of exploration as they progress from just a few basic shapes to more complex sorters. I enjoy being on the floor with the children and observing them make connections. For example, the other day I asked Alex if could show me the blue circle. After he emptied the sorter and prepared for a second round I simply asked "where is the circle?" and he picked it up, not needing the prompt of a familiar color to help him out.



Critical to future deep understanding of math concepts, is the students' ability to engage in problem solving that fosters curiosity, imagination, flexibility, and persistence – key attributes in risk-taking and confidence-building. School-age children use the Standards of Mathematical Practices, as described in the following box below, beginning in prekindergarten and continuing through the higher grades.

MATHEMATICAL PRACTICES

Educators need to know how to facilitate learning opportunities so that children can learn to:

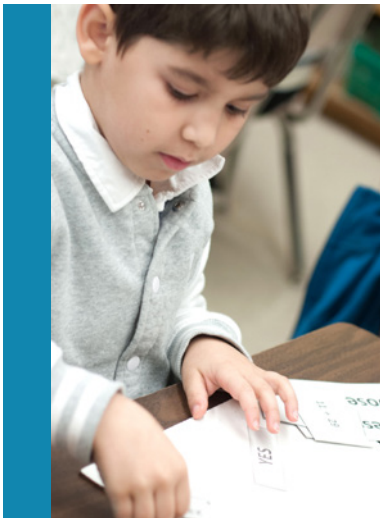
- Make sense of problems and persevere in solving them;
- Reason abstractly and quantitatively;
- Construct viable arguments and critique the reasoning of others;
- Model with mathematics;
- Use appropriate tools strategically;
- Attend to precision;
- Look for and make use of structure; and
- Look for and express regularity in repeated reasoning.

For more information about the practices, consult the Maryland College and Career-Ready Standards, Mathematics at: http://mdk12.org/instruction/curriculum/mathematics/index.html

Science

The study of science provides a rich opportunity for skilled early childhood educators to help children develop scientific thinking skills while exploring the natural and physical world around them. Children learn about science by playing with sand and water, and watching what happens when they combine the two. They learn about science when they make snowballs, then bring them inside and watch them melt. They learn about science when they cook, garden, have a class pet, or go outside to watch bugs. Throughout, they are recognizing patterns, making predictions, and formulating answers to questions. The educator's role is to bring the scientific vocabulary to these activities and ask children questions that expand their thinking.

Using inquiry-based and problem-based learning, educators guide children toward the



scientific process of observation, prediction, and investigation. The science domain of the state curriculum and the Maryland Early Childhood Comprehensive Assessment System focuses on skills and processes as well as life science. Like all domains of development, however, this process is gradual and linked to skills and knowledge being acquired in related domains. For example, grounding in mathematics helps children with classifying objects in science, and grounding in language helps children to be able to communicate verbally or in writing their findings of a classification project. As that engagement occurs, the educator is working to help the child build essential scientific thinking skills that will guide future learning in school and life.

Even young children use information from science, technology, engineering and mathematics (STEM) while engaged in activities that include real-life connections and problem-solving opportunities. The Maryland College and Career-Ready Next Generation Science Standards (NGSS) has STEM Standards of Practices infused in the grade level curriculum. Both can be accessed by going to: http://www.mdk12.org.

Educators' Voices: My prekindergarten children adore the outdoor sandbox. They delight in seeing the sand change shape as they move it about or pack it in a container, and then watch it fall as they invert the container. They look closely at the different grains of sand and notice differences in shape, color, and size. The other day Hayden was quietly watching water disappear as she poured a fine trickle into the sand. Then she used a shovel and dug to see where the water traveled under the surface. I encouraged her

to pour water on the asphalt, and asked her why the water did not disappear on that surface. There is just so much opportunity for discovery that happens in the sandbox. Even though the children are sometimes covered head to toe in sand at the end of our outdoor discovery period, I know that the experience is valuable for them. Plus, we have a simple routine of dusting ourselves off, emptying our shoes, and scrubbing our hands, so that we are ready to move forward with other forms of learning through play.

Educators' Voices: A group of parents recently built a raised garden on our school playground. It's a wonderful addition, allowing me even more opportunities to work with the children to reinforce our (STEM) curriculum. Together, the children and I talked about the different types of soil and compared the texture, color, and smell. We read about the ideal soil composition for a vegetable garden. We mixed the soil and then read about the three sisters – squash, beans, and corn -- and how the Native Americans in Maryland planted these three together in ways to support each other's growth. The children opened our seed packets and studied the seeds to see the differences in color, shape, and size. We talked about the spacing needed between plants and the depth needed for the seeds. Together the children created a map for the garden to use when planting the seeds. The children observed the garden for any signs of growth and recorded what they saw. They were delighted when the first legitimate sprout emerged a few days later. The children tended the garden, watering, weeding, and measuring growth. It was a wonderful hands-on learning experience that ultimately ended with a harvest feast where the children were able to enjoy the fruits of their labor.

Both motivation and engagement in scientific thinking can be instilled as early as the preschool years. While many preschool classrooms include a science area, the combination of scientific concepts, math operations, and introducing simple tools as a precursor to technical applications has been less explored. PEEP and the Big Wide World™ is one of the more prominent preschool STEM curriculums that include activities for three and four year-olds that can be incorporated in the regular preschool and kindergarten classroom routines.

PEEP AND THE BIG WIDE WORLD™

Originally produced by WGBH-TV in Boston, PEEP and the Big Wide World™ is an animated cartoon that teaches nature and basic science concepts to preschoolers. The main characters include a yellow baby chick named PEEP and his friends Quack, a blue duckling, and Chirp, a baby red robin with pink eyelids.

In addition to the show, the public TV station produced the PEEP and the Big Wide World™ Explorer's Guide, which includes lessons for use in the classrooms. The lessons cover six major science concepts:[14]

- Explore Shadows: Outdoors, make shadows in the sunlight. Indoors, explore shadows with lamps and flashlights.
- Explore Water: Indoors, use the water table to discover how water moves and the ways objects behave in water. Outdoors, explore puddles, raindrops, and waterways.

14 PEEP story and related live-action videos are available online in English and Spanish

- Explore Plants: Indoors, watch plant seeds and bulbs and track their growth. Outdoors, observe the trees and plants growing nearby.
- Explore Color: Indoors, mix and sort colors. Outdoors, observe colors in nature and explore colored light.
- Explore Sound: Indoors, explore sounds you can make with your body and voice, then shake, tap, and pluck various objects. Outdoors, take a Listening Walk and imitate the sounds you hear.
- Explore Ramps: Outdoors, explore slides and hills and discover the best surfaces for rolling. Indoors, experiment with ramps and explore the movement of objects that slide and roll.

Source: http://www.peepandthebigwideworld.com/resources/exploration/

SCIENCE-BASED FIELD TRIPS IN EARLY CHILDHOOD

Field trips can be an opportunity to introduce and/or extend classroom learning about science in ways that are developmentally appropriate. They are not a replacement for teaching, but rather, should be used to introduce or reinforce concepts and vocabulary that the children have been or will be exposed to in the curriculum.

Significant teaching needs to happen before the field trip – both related to content as well as the process and expectations, so that children are fully prepared for the learning opportunity. After the trip, skilled early childhood educators know to plan activities to make connections and highlight the learning experience.

Social Studies

Children formulate many of their attitudes and values toward society in the early years. The development of these attitudes and values occurs primarily outside the school setting. However, a social studies program should provide a setting for children to acquire knowledge of history, rules of government, differences in cultures, places and locations, and exchange of goods and commodities. Similar to science, much of what is learned relates to concept formation, i.e., being able to describe objects or activities within its context of social or natural sciences. Young children's observations of the world around them makes only sense by understanding its context, thereby enabling them to form opinions and values (NCSS, 1988).

Early childhood educators help children understand their sense of self-identity and the part they play in their family, the early childhood program, and the community. From this, educators help the children value diversity and recognize the important role that each person plays in building a strong and vibrant society.

The social studies program enables children to participate effectively now in the groups to which they belong. The early childhood program or the school serves as a laboratory to learn social participation. Democratic and participatory school and classroom environments are essential to this type of real-world learning.

The Maryland State Curriculum and the Early Childhood Comprehensive Assessment System, support the social studies domain. The following provides a description of the social studies strands:

Government
Help children identify and understand how rules and responsible behavior promote fairness, order and safety at home, school and in the community.

History
Help children develop an understanding of past, present, and future in the context of familiar daily routines and experiences.

Economics
Help children understand how resources are used to make products, explains how technology affects the way we work, and identify markets of goods in our community.

Peoples of the Nations and World
Help children understand how they are part of a family with similar needs and wants, identify differences in cultures, and learn how groups of people interact.

Geography
Help children understand characteristics of locations and places and learn how to use maps and globes.

School-aged children receive additional social studies instruction in areas such as skills and processes, geography, and economics to name a few. A complete description of the social studies curriculum can be found at: http://www.mdk12.org.

Educators' Voices: A stable, loving family is so important for all babies. When they feel secure, they are able to be more receptive to others and to new experiences. We do many things in the program to reinforce the importance of the family, so that babies can absorb that appreciation and respect that we all share. Each day we warmly greet the baby and family and respond individually to the needs of the baby as the family leaves the program. We laminate pictures of the baby with her family and put them around the room so that she can see and feel that closeness to her special family unit. Towards the end of the day, we talk with the baby about going home and then share information about the day with whoever is picking her up. We intentionally create opportunities in the curriculum to reinforce the notion that the baby is part of her family and of our program. We want her to recognize who she is, how she fits in, and that all are there to cherish and support her.

Educators' Voices: The children in my prekindergarten class live in a dense neighborhood in East Baltimore. Though they live close to one another, they often do not socialize outside of school. As part of our social studies unit, I was helping the children understand about where we live and what resources are available in our community. Together we created a map, with the school at the center as our focal point. I added the major streets nearby. The children quickly tossed out familiar landmarks – the park that they pass as they walk to school, the pizza store, the local library, the fire station, the corner where they catch a bus to go to the Inner Harbor. It was delightful to hear their chatter in between making a suggestion – "You go to that park too? I like the swings the best. I go every afternoon, maybe we can play there together." Through this exercise, the children developed greater awareness about their community. They made new connections with each other and according to the parents they began to seek out opportunities to meet up outside of school at the park, the library, and at each other's homes.

The Fine Arts

Education in the arts for young children is vitally important, as it is proven to contribute to healthy brain development. Whether they are engaged in visual arts or the performing arts (music, movement, dance, or drama), children should experience the arts every day. The fine arts domain is part of the Maryland College and Career-Ready Standards and the Maryland's Early Childhood Comprehensive Assessment System. The four strands of the domain are described below.

Music
Early childhood educators help children develop an awareness of musical sounds through voice, body movements, and classroom instruments. Children demonstrate a steady beat and respond to changes heard in music (e.g., loud/soft).

Visual Arts
Educators help children identify, describe, experiment with, and create images and forms from observation, memory, imagination, and feelings. Children use colors, lines and shapes in their artworks.

Theater
Educators help children to use theatrical elements such as retelling and performing nursery rhymes, and adding sounds to stories.

Dance
Educators help children demonstrate locomotive and non-locomotive movements to communicate ideas and feelings.

Integrating Fine Arts

Opportunities to engage with the arts should be integrated throughout the curriculum, not just limited to related arts classes or an occasional activity. Physical development in the young child is enriched though movement, dance, drawing, and painting that engage gross and fine motor skills. Language and literacy is enriched as children learn the call and response of communication in music and drama, and as they learn a new language, that of music. Mathematical thinking skills are at work as children are playing instruments and counting out a beat, drawing symmetrical pictures, and considering proportions while sculpting with clay. Scientific thinking is factored into the arts too, with children hypothesizing what color will be created when two are mixed, or when they consider how to construct and secure a backdrop for a performance. Social studies are also addressed, as children learn about the childhood backgrounds and inspirations of different artists.

School-aged children receive additional instruction in the fine arts. For specific information in each of these areas of the state curriculum, visit: http://mdk12.org/instruction/curriculum/arts/index.html. For young children, prior to formal education, the Maryland Early Learning Standards, and Healthy Beginnings, include a companion guide entitled Creative Connections: Young Children and the Arts which is a practical guide to fine arts education in early childhood programs. http://www.marylandhealthybeginnings.org/

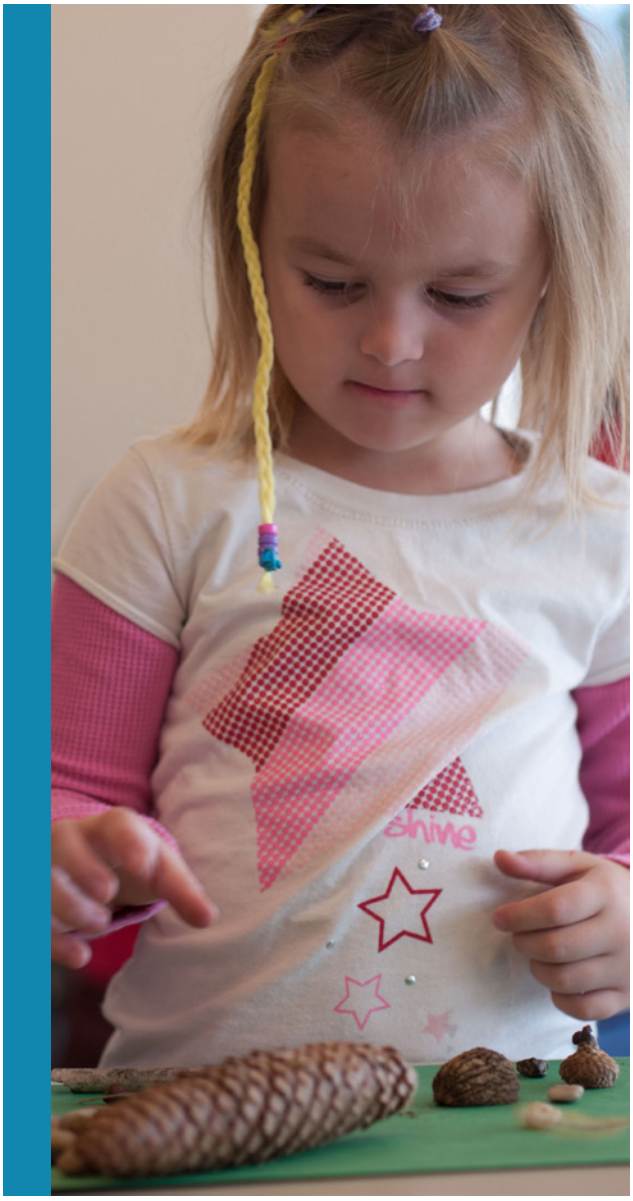
The National Coalition for Core Art Standards has published the Child Development and Arts Education: A review of Current Research and Best Practices which describes a pedagogical approach to early childhood art experiences: http://nccas.wikispaces.com/Child+Development+Research.

Educators' Voices: Bradley sparkled any time the music played in our toddler room. He would immediately catch the rhythm and bounce to the music. Bradley was recently referred to the Child Find program by his pediatrician, as there was concern

that he might be demonstrating signs of autism. I worked with his parents and the Child Find team, observing his development and keeping a record of his responses to different forms of stimulus. I knew from this that music was a highlight for him. While he was unable to use words to sing along, he would make sounds and gestures of joy. We had a variety of instruments in the room for the children to explore. Bradley favored those that had a gentle vibration (e.g., the rain stick, an egg shaker), and steered clear of those that made a loud sound (e.g., the cymbals, a lollypop drum). He typically did not want to interact with other children, but, through music, I found ways to draw him out and to help him be part of our group learning experience.

Educators' Voices: I recently took our kindergarten class to the local library and enjoyed a presentation about famous African American authors. The children were especially enamored with the books by Donald Crews. Both the illustrations and the content held the children's interest. When we got back to school, we talked about Crews' book *Freight Train*, and the children shared their favorite parts of the story. With *Freight Train* and *Trucks* in their recent memory, I invited the children to create their own story inspired by Crews. Some children chose to visit the art corner and began painting images they would use to illustrate their story; other children worked on a graphic organizer and jotted down ideas that they would later turn into short sentences; still other children took turns sitting with me and dictating their story. They found many ways to engage with the assignment during the next several days. I was so impressed with their work, the illustrations as well as the creative stories, that I created a display, and invited the parents and librarian to our very own art show and view the children's work.

Educators' Voices: I find that shy children can express themselves more easily when they have a puppet that can do the talking for them. So at the beginning of the year, my second graders make their own puppet that they can use as they wish during the school year. I provide an assortment of materials – paper bags, old socks, buttons, embroidery thread, felt, lace, and much more. The children have as much fun creating their puppets as they do using them later. Some children decide that their puppet is their confidant and whisper secrets to it. While other children use the puppet to make a point that they might not be comfortable saying directly (e.g., "My feelings were hurt during recess when you would not play with me"); still other children use their puppet when it is time to make a presentation to the class. These children might feel unsure about public speaking and having the puppet gives them the confidence to speak up.



TIPS FOR EARLY CHILDHOOD EDUCATORS

STAYING CURRENT WITH CONTENT KNOWLEDGE

- Become a member of professional organizations and read their online newsletters, print journals, and other resources, and participate in their conferences. Some professional organizations to join include:
    - National Association for the Education of Young Children
    - Maryland Association for the Education of Young Children
    - Division for Early Childhood, Council for Exceptional Children
    - National Council of Teachers of Mathematics
    - International Reading Association
    - State of Maryland International Reading Association Council
    - National Science Teachers Association
    - Natural Teachers Network
    - Maryland Music Educators' Association
    - National Head Start Association
    - National Association for Family Child Care
- Read and use Maryland Healthy Beginnings and the Maryland College and Career-Ready Standards State Curricula and any updates.
- Participate in trainings and attend guest presentations offered by your school, program, the Judy Center, child care resource center, or local college.
- Use curriculum planning web sites to find ideas to use in your teaching.
- Network with other teachers to gather and share ideas.
- Find a mentor in the field and meet regularly to reflect on practices and learn about new approaches.

FAMILY VOICES

When Jasmine was a baby, I regularly read to her, enjoying the closeness as she cuddled on my lap. I knew it was one of the best things that I could do to help her be ready for school. Before she could walk, she knew how to hold a book and turn the pages. She was an early talker and had a rich vocabulary. I was so proud of her.

When she was five, my husband and I separated. I needed to pick up a second job to be able to make ends meet. Jasmine was at school for the full day, stayed in aftercare until 6pm, and then was with a neighbor for a few hours until I returned home. I worked on Saturday, so Sunday was our only day together, but that unhurried time became shorter and shorter as I would be distracted with laundry, grocery shopping, and other chores. One Sunday I gave her my tablet and said she could play with it for an hour while I did my chores. It was wonderful. She was engaged, playing games, and after the hour passed, I still had a few things to do, so I let her keep playing.

It became a new routine. Sunday mornings meant tablet time, and even some nights during the week when I was exhausted from my day at work, I would pass her the tablet. No more cuddling with books or playing dress up. It was so easy for me to let her play on the tablet. At the next parent-teacher conference, I admitted to Ms. Shawl, the teacher, about feeling "torn-up" inside – balancing two jobs and being the mom I wanted to be felt near impossible. I told her how guilty it made me feel when I knew Jasmine was using the tablet too much.

Ms. Shawl listened and made some suggestions for things that Jasmine and I could do on Sundays that would support her learning at school. That sounded great to me. One week it was a baking project to follow the recipe and then enjoyed our treat afterwards. Another week we explored our neighborhood and took pictures with the tablet of everything we saw that was circular in shape. The ideas were simple to do and so much fun. We found a new routine where I would spend a few hours in the morning getting my chores done (often with Jasmine by my side helping), and then we'd spend the afternoon doing something that Ms. Shawl suggested. Ms. Shawl's gentle guidance was a turning point for me. I felt better about my parenting knowing that I was engaging Jasmine in fun learning activities and not just depending on the tablet for entertainment. Our mother-daughter relationship was strengthened as a result.

TAKE TIME FOR SELF-REFLECTION...

How do you ensure you are covering the content that needs to be taught, but also remaining flexible to take advantage of teachable moments and/or to circle back when the children are not yet secure with a skill or content? Who might you talk with for guidance so that you do not fall too far behind yet, you honor the pace of learning for the children?

How do you ensure children who are English Learners or those with special needs have equal opportunity to engage in new learning and to reach ambitious goals?

Think of a few children in your class and consider what you have done this week to ensure they have equal opportunity. What might you do differently this next week to engage them more fully? What additional strategies or resources might you need? Who can help you with this?

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WEB LINKS

Activities Integrating Math and Science
http://www.aimsedu.org/

Children and Nature Network
http://www.childrenandnature.org/

Common Core
http://www.corestandards.org/resources

Common Core Conversation: Math Resources
http://www.commoncoreconversation.com/math-resources.html#sthash.cRVOsANE.dpbs

Division for Early Childhood, Council for Exceptional Children
http://www.dec-sped.org

EconEdLink
http://www.econedlink.org/

EDSITEment
http://edsitement.neh.gov/lesson-plans

Framework for K-12 Science Education
http://sites.nationalacademies.org/dbasse/bose/framework_k12_science/index.htm

Head Start Early Learning Framework
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Assessment/Child%20Outcomes/HS_Revised_Child_Outcomes_Framework(rev-Sept2011).pdf

iCivics
http://www.icivics.org

Illustrative Mathematics
http://www.illustrativemathematics.org/

International Reading Association
http://www.reading.org/

K-5 Math Teaching Resources
http://www.k-5mathteachingresources.com/kindergarten-math-activities.html

Let's Move Campaign
http://www.letsmove.gov

Let's Move Active Schools
http://www.letsmoveschools.org

Maryland Association for the Education of Young Children
http://www.mdaeyc.org/

Maryland Common Core Curriculum Frameworks
http://mdk12.org/instruction/commoncore/index.html

Maryland Early Childhood Gateway
http://www.mdecgateway.org/

Maryland Healthy Beginnings
http://cte.jhu.edu/onlinecourses/HealthyBeginnings/HB_BookCharts.pdf

Maryland Music Educators' Association
http://www.mmea-maryland.org/

Maryland Social Foundations Framework (DRAFT)
http://www.marylandpublicschools.org/NR/rdonlyres/E9C73915-866E-4E12-876D-928815E229A2/35602/SEFELframework_draft032013.pdf

Maryland STEM Education
http://www.mdk12.org/instruction/curriculum/STEM/index.html

National Association for the Education of Young Children
http://www.naecy.org

National Association for Family Child Care
http://www.nafcc.org

National Council of Teachers of Mathematics
http://www.nctm.org/

National Board of Professional Teaching Standards, Early Childhood Generalist Standards, Third Edition
http://www.nbpts.org/sites/default/files/documents/certificates/nbpts-certificate-ec-gen-standards.pdf

National Geographic Education
http://education.nationalgeographic.com/educatin/?ar_a=1

National Head Start Association
http://www.nhsa.org

National Science Teachers Association
http://www.nsta.org/

Natural Teachers Network
http://www.childrenandnature.org/movement/naturalteachers/

Next Generation Science Standards
http://www.nextgenscience.org/

Maryland Vocabulary Improvement and Oral Language Enrichment through Stories (VIOLETS)
http://www.readyatfive.org/raf/programs/violets.html

PBS Kids Lab
http://pbskids.org/lab

Partnership for Assessment of Readiness for College and Careers
http://www.parcconline.org/

PEEP and the Big Wide World™
https://www.peepandthebigwildworld.com

Playing History
http://playinghistory.org

ReadWriteThink.org
http://www.readwritethink.org

Reading Rockets
http://www.readingrockets.org/

Ready at Five Violets
http://www.readyatfive.org/raf/programs/violets.html

Reggio Inspired Materials
http://www.aneverydaystory.com/beginners-guide-to-reggio-emilia/reggio-materials/

Rutgers University Project on Economics and Children
http://econkids.rutgers.edu/

Smithsonian's History Explorer
http://historyexplorer.si.edu/home/

Social and Emotional Foundations for Learning
http://csefel.vanderbilt.edu/

State of Maryland International Reading Association Council
http://www.somirac.org/

Teachinghistory.org
Htt://teachinghistory.org/teaching-materials

Thinkport. Think Education. Think Maryland
http://www.thinkport.org/default.tp

University of Maryland Food Supplement Nutrition Education Program
http://md.nutrition-ed.org/

Yale Center on Dyslexia and Creativity
http://dyslexia.yale.edu/

ZERO TO THREE
http://www.zerotothree.org

CHAPTER 6:
PLANNING AND MANAGING THE ENVIRONMENT FOR DEVELOPMENT AND LEARNING

This chapter describes how early childhood educators develop an understanding of children as individuals. It explains the critical role that early childhood educators play in instructional planning and the use of curricula and learning objectives to meet the needs of children. It defines the benefits of a professional learning community. The chapter also describes creating indoor and outdoor environments that support children's learning, and developing schedules, routines, transition time, and safety for a quality early learning program.

◆ Helpful terms ◆ Understanding and knowing children ◆ Curriculum, planning and learning objectives ◆ Professional learning communities ◆ Establishing routines and schedules ◆ Managing indoor and outdoor environments ◆ Safety and health ◆ Resources and web links ◆

HELPFUL TERMS	
Alignment	Alignment refers to coordination of the curriculum from one level of education to the next, to build on what children have learned and prepare them for transitions and next steps of learning.
Backward Mapping	Backward mapping is a strategy educator's use as they plan their curriculum and related lessons. They consider what content and skills the children need to know, how they will know if the children are secure with the content or skills, and the activities they will present for the children to learn the content or skills.
Constructivism	Constructivism is a theory stipulating that people construct their own understanding and knowledge of the world through their own experiences rather than being taught.
Curriculum	An organized framework that delineates the content that children are to learn, the process through which children achieve the identified curricular goals, what teachers do to achieve these goals, and the contexts in which teaching and learning occur.
Differentiation	Creating multiple paths so that children of different abilities, interests, and learning needs experience equally appropriate ways to achieve learning goals. It is a philosophy about teaching and learning that addresses what is needed for individual children to meet with success.
Danielson Framework for Teaching	Charlotte Danielson's *Framework for Teaching* is a research-based set of components of instruction grounded in a constructivist view of learning and teaching. The framework is organized in four domains: planning and preparation, classroom environment, instruction, and professional responsibilities. While it is written with K-12 in mind, many early childhood educators in Maryland use it as a guide to shape their work.

Domains of Development	Domains of development include social foundations, physical well-being and motor development, English/language arts, mathematics, science, social studies, and the arts. Early learning programs intentionally work with children to support acquisition of new skills in each of these domains of development.
Early Childhood Comprehensive Assessment System (EC-CAS)	The Maryland Comprehensive Assessment System will feature a set of linked systems and professional development supports to measure, monitor, and improve the school readiness of all children. It will include developmental screeners, formative assessments (36 to 72 months), and the Kindergarten Readiness Assessment (KRA).
Graphic Organizer	Graphic organizers are visual representations of knowledge, concepts, or ideas, such as a Venn diagram.
Informal Inventories	Informal inventories provide insight for educators into children's behavior and performance. This insight can then be used to tailor learning experiences for children.
Integrated Curriculum	Learning experiences are planned to encourage learning in more than one content area and across several domains of learning.
Intentional Teaching	Intentional teaching is purposeful teaching. The intentional teacher has well-developed plans that can be understood by others, but is also able to identify and effectively use teachable moments to maximize learning opportunities with children.
Kindergarten Readiness Assessment (KRA)	The KRA is the cornerstone of the Ready for Kindergarten Early Childhood Comprehensive Assessment System (EC-CAS). It is administered in the fall of the kindergarten year and has a defined window of availability for completion. It is based on select skills from the sixty-three month benchmarks on the developmental learning continuum.

Learning Centers	Smaller spaces within the program environment where children are able to engage in hands-on learning activities, which provide application, reinforcement, and enrichment of previously taught content, concepts, and skills in the various domains of development.
Manipulatives	The tools, objects, materials that children use to learn new concepts.
Realia	Realia are objects and materials from everyday life that are used as teaching aids.
Scaffold	Scaffolding occurs when the teacher provides support, while also challenging the child to try something a little more difficult.
STEM	STEM refers to science, technology, engineering, and math learning opportunities.
Transition	Changes from one activity or place to another. Transitions can happen during a day, within a program from one class or grade to another, or across programs.
Universal Design for Learning (UDL)	Universal Design for Learning is a belief and set of practices that ensure all children have access to learning opportunities that support their individual development. It is based on three big ideas: the What, How and Why of learning and the learner. (See Chapter 4)
World-Class Instructional Design and Assessment (WIDA)	WIDA sets standards, creates assessments, conducts research, and provides professional development for educators to support the language development of linguistically diverse students. (See Chapter 4)

Young children are naturally curious and have a thirst for exploration and discovery. They are constantly exploring, discovering, developing, and building skills that become the foundation for more complex learning in later school years. Nurturing that curiosity and guiding them toward experiences that will enable them to develop new knowledge are the key roles of the early childhood educator. The skilled early childhood educator and teacher understands children's development, builds secure relationships with each child, knows the unique skills and interests of each child, and prepares a learning environment for exploration.

Effective planning is essential to making this happen. Early educators strategically plan for and prepare the learning environment so that children can naturally engage in developmentally appropriate learning activities – that is, activities that accommodate age, experience and ability that provide exposure and practice for children to reach increasingly challenging achievable goals. Well-planned, developmentally appropriate experiences move children toward higher levels of functioning as demonstrated in the progressions of development illustrated in Chapter 2. Additionally, a well-planned and structured environment minimizes off-task behaviors that interrupt learning opportunities because the children are fully engaged in their play and learning.

As early educators plan for children's learning, it is critically important that they set high, achievable expectations for all children, including those with unique challenges due to physical, cognitive, emotional, or linguistic differences. By targeting the particular strengths and interests of each child, educators are able to plan for instruction that shows movement toward their goals.

Getting to Know Individual Children

Information about the stages of child development (Chapter 2) and valuable insights about diversity (Chapter 4) gives early childhood educators a better understanding in working with families and children. Educators move from this general knowledge to gaining an understanding of the individual children in their program – their specific characteristics, skills, and behaviors. Several methods are useful for doing this:

- Talk with the family to learn about the child's strengths, challenges, and the child's social and cultural contexts;
- Observe the child in the program environment to shed light on the child's social and emotional skills and strategies, approach to learning, natural interests, and abilities;
- Assess the child using one of many evidence-based tools recommended by the Maryland State Department of Education (e.g., Maryland Comprehensive Assessment System, WIDA proficiency tests), or locally devised or commercial inventories, portfolios, checklists, anecdotal notes, reading inventories, running records, district benchmarks, and writing;
- Review previous reports and assessments from the Maryland Comprehensive Assessment System, prior educators, current IEP/IFSP, and collaborative reports from other providers who work with the child and family (e.g., early interventionists, pediatricians, mental health providers, social workers);
- Conduct Interest surveys can be used to help educators become familiar with children. A series of questions about likes and dislikes can be given in a written format or through verbal questioning, depending on the age of the children; and
- Visit the home to observe children in their natural home environment

In gathering this information, early childhood educators are then able to develop a clear picture of the abilities for the children in their program. They will know which children might need assistance or a different approach for learning. Educators begin to form ideas about how to group children for activities and resources, or materials that they should have in the learning environment that will connect children's interests, culture, or unique need to learning goals.

Educators' Voices: I had been a prekindergarten teacher for many years and when the opportunity arose for our Head Start program to serve infants and toddlers, I jumped at the chance. Our director worked with the local community college, the Judy Center, and a host of consultants and trainers for a handful of us on staff to have an intense introduction and training on infant and toddler growth and development. I did my own homework too, reading up on the literature, visiting accredited infant and toddler programs, and listening to podcasts and videos from national organizations like ZERO TO THREE (http://www.zerotothree.org) and the Center on the Developing Child at Harvard Univeristy. I still took time to reflect on the community, thinking about what supports might be needed for new parents who are using an out-of-home care setting for the first time, and how I can welcome and engage them as partners in their baby's learning. It was important for me to be intentional in all of this – to gather information and to think how I will work with the different families.

Educators' Voices: I make as many home visits with the families of my children in my incoming kindergarten class as I can. Over the years, I have found that the home visit is a great way for me to get to know the child and family, to hear about their hopes, dreams, and, sometimes, worries for their child, to gather baseline information, to explore ways that they might want to be involved in their children's learning, and to identify their natural supports. The home visit helps to start the relationship that is so important for both the child and family. I blend what I learn in the home visit with classroom observations. Of course, I weave in what I learn from the kindergarten entry assessments. Together, this information helps me understand each child's starting points and how I might need to differentiate instruction to best meet each child's needs.

Curriculum, Planning and Learning Objectives

Having collected knowledge about child development and specific information about the children in their care, based on data from multiple sources, including formative assessments and IFSP/IEPs, early childhood educators are then ready to use their approved curriculum and identify goals and learning objectives that are developmentally appropriate. The process should not be different whether the early educator works in a public school setting or another learning environment. Those teaching preschoolers through grade 2 use curricular standards found in Maryland's College and Career-Ready Standards (http://www.mdk12.org.) Those working with children under the age of four are working with Maryland Healthy Beginnings (http://www.marylandhealthybeginnings.org/)

Early childhood educators will be able to make decisions on the appropriateness of the selected curriculum and how it aligns with the needs of their program. The information o follow will be of assistance with curriculum, instructional planning and developing learning objectives.

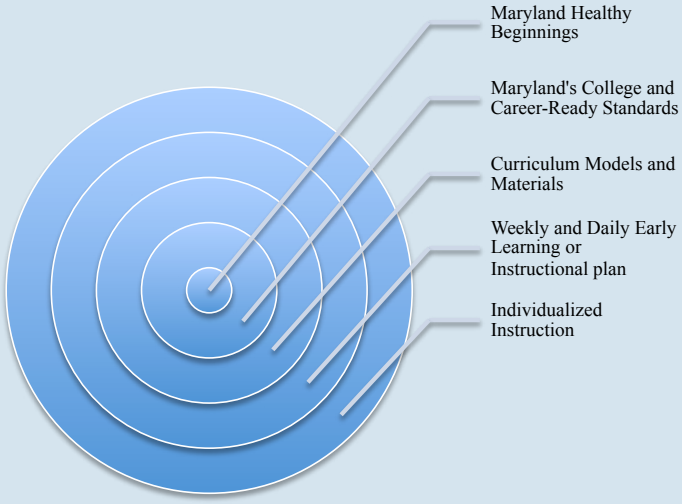
Curriculum

While public school educators have to use specific curricular materials such as selected reading or math series, community-based and non-public school educators often have flexibility to pick their own curriculum. Providers are encouraged to select curricular programs from the MSDE recommended curriculum list. The curricula on this list are aligned to the Maryland State Standards.

The importance of a clearly defined curriculum cannot be emphasized enough; experiences may happen at random and outcomes are not guaranteed without a curriculum. It should reflect intentional

and systematic instruction that will advance student growth. The goals or standards of the curriculum are important in helping skilled early childhood educators select a published program that is aligned with the needs of the children in their learning center. Educators will look to these models for guidance on the ideal for how teaching and learning should occur, but will tailor a plan to meet their unique experience. Maryland has a list of recommended comprehensive curricula that can be found at: http://www.marylandpublicschools.org/MSDE/divisions/child_care/preschool_curriculum/overview.html.

TIERED STRUCTURE OF CURRICULAR PLANNING



The following illustration reminds early childhood educators, birth to age four that Maryland Healthy Beginnings frames early learning and Maryland's College and Career-Ready Standards guide instruction for students who are transitioning into formal schooling. Their alignment and functional relationship is only guaranteed if all educators, birth to grade 2, create a logical and intentional organization to their teaching. This includes the use of the same curricula models and materials and instructional planning which flows from the curriculum. Differentiation of teaching occurs based on the needs of the children, their individual learning needs, including any formal individual education programs.

For those educators who have an opportunity to select a curriculum plan, they should take into consideration the following:

- Are the goals developmentally appropriate, clearly defined, and aligned with the Maryland Healthy Beginnings or Maryland's College and Career-Ready Standards?
- Does the curriculum plan link directly to the goals?
- Does the curriculum plan address all domains of learning?
- Is there research to indicate that the learning strategies and teaching methods in the plan will be effective?
- Do the strategies provide opportunities for children to be actively engaged in discovery, and learning that is a mix of child-directed and teacher-directed explorations that value teachable moments?
- Does the curriculum plan build on prior learning and experience? Does it show logical sequencing of learning opportunities from simple to more complex?
- Does the curriculum plan support cross-curricular teaching opportunities?
- Does the curriculum plan address common areas of misconception and provide ways to clarify or address the problem (e.g., common misconceptions with math concepts)?

- Does the curriculum plan provide for sufficient opportunities in daily routines to practice using new skills?
- Does the curriculum plan outline the types of materials and resources that will be needed?
- Does the curriculum plan provide for differentiation so that it is individualized to meet unique needs of children?
- Is the curriculum plan culturally and linguistically appropriate given the background of children in the program?

Backward Mapping

Backward Mapping is an effective strategy many educators use as they plan the curriculum. This works for children of all ages and in all types of settings. Below are the five essential questions educators ask themselves when they backward map.

1. What content and skills do I want children to know or be able to do?
2. How will I know if they have mastered the content or skill?
3. What activities or lessons can I plan that will present the children with opportunities to learn the content and develop the skills?
4. For those children who have difficulty with the content and skills, what will I do differently to support their learning?
5. For those children who have already mastered the content and skills, what will I do differently to extend their learning?

Educators' Voices: I use "Backward Mapping" when I plan daily language arts and math instruction for my kindergarten class. When planning for counting and cardinality to twenty, I began by selecting the Common Core State Standard that the children needed to master: "K.CC.3 – write numbers from zero to twenty. Represent a number of objects with a written numeral zero to twenty (with zero representing a count of no objects)." Next I determined how this learning would be assessed. I provide the children with whiteboards, sand trays, and Ziploc bags filled with paint so that they can use their finger and draw the numeral. I give them Wiki Stix or play dough so that they can manipulate the sticks or dough and form the numerals. I also give them twenty manipulatives and ask them to count the set. I then give them slips of paper with numerals and ask the children to match the objects to the numerals. If a child has a card with the numeral fifteen on it, then she will count out fifteen of the manipulatives and place it next to or on the fifteen card. I can rotate from group to group and offer one-on-one assistance for children who might needs some additional assistance.

Educators' Voices: I have been a child care provider working with children six weeks to eight year,s for years. The Maryland Healthy Beginnings document helps me plan weekly lessons for the children. Healthy Beginnings reminds me of the progressions of development and learning related to personal and social, cognitive, physical, and language development. The suggested activities are good reminders for me of simple things that I can do for each child that will make a big difference in their development. I also share the Healthy Beginnings chart with the families so that they, too, can benefit from the resource. Then we can work together in supporting the children's learning.

Daily and Weekly Instructional Planning

Planning templates and pacing guides are provided by many curriculum models, early learning programs, and school systems. They can be helpful in organizing the approach so that lessons and interactions with children are intentional and goal directed. A focus on the "Five E's" – engage, explore, explain, elaborate, and evaluate – is a helpful guide during planning. Reviewing these

tools should be a regular part of collaborative planning and coaching. The "toolkit" found on this website is helpful for lesson planning beginning in grade pre-K: http://www.mdk12.org.

To foster educators' understanding of how to implement these pedagogical ideas, many early childhood programs and schools have created community of learners. Professional learning communities (PLCs) are instrumental in helping educators work as members of a collaborative team (DuFour, DuFour & Eaker, 2005). Analyzing student work and developing lessons to re-teach a concept (i.e., formative assessment) is the core of being in a PLC. DuFour has identified three questions that drive the work of educators in a PLC:

- What do we want each student to learn?
- How will we know when each student has learned it?
- How will we respond when a student experiences difficulty in learning? (p. 33)

The Importance of a Professional Learning Community

Early childhood educators should be part of a professional learning community within their program or school where they are able to work together and continuously gather ideas for enhancing teaching practices. For those who operate independently, it is always helpful to find others in the same situation and build an informal network.

Collaborative Planning

The benefits of working collaboratively to plan for content and approaches to teaching are enormous. For example, when working in collaboration with other educators, all are able to share knowledge, experience, and strategies. Educators are able to reflect on what they are doing in practice and consider what the data from formative assessments tell them about gaps in learning. As a community, early childhood educators that engage in problem solving and come up with new strategies to support one another in developing curriculum plans that yield desired outcomes for children.

Educators' Voices: Teaching a self-contained kindergarten class with special needs children, in a curriculum based program, requires me to plan with my grade-level team, as well as modify content on my own. During our weekly planning meetings, I get to participate in conversations about specific lessons, discuss modifications, creating rubrics and checklists, and decide on common assignments we want to use in our grade book. By engaging in these conversations with my team, I am able to ensure I'm staying true to the curriculum while making appropriate choices for all learners in the classroom.

Developing Learning Objectives

Early childhood educators know the importance of developing learning objectives for groups of children and further differentiating objectives for individual children. This process is typically done as part of the collaboration between the teachers and the instructional leaders of the early learning program or the school, (e.g., principals, instructional specialist, education supervisors). The purpose of developing such objectives is to intentionally create learning opportunities that will result in growth for each child. Educators measure progress toward the objectives and know when to modify instructional approaches and content to ensure the children are acquiring the desired skills.

Educators should consider previous data or baseline evidence when developing learning objectives. Objectives should be measurable and clearly communicated to children. Modeling of the expected task is frequently beneficial in helping children achieve the learning objective.

The Teachable Moment

Albert Einstein called the supreme art of teaching when it awakens the joy of creative expression and knowledge. While educators are engaged in planning and intentional teaching, often the "joy" is being discovered through a teachable moment. These moments, mostly coincidental, can provide enrichment rather than a distraction from teaching. Teachable moments are particularly important with young children, since their scheme of thinking as a toddler or preschooler are led by discoveries, i.e., unplanned moments of discovering something new that warrants explanation. Yet, teachable moments end up being for all ages.

Educators' Voices: Even though I start the week with a clear idea of all that I am trying to accomplish with the children, I always have to be looking for teachable moments. Sometimes it is a teachable moment where I can extend the curriculum. For example, we may be talking about measurement in our math unit and a child might raise a related question about fractions. I know that fractions will be covered in third grade, but if the students are ready to go there, why not use the moment to make the connection between what we are learning in measurement and how it relates to fractions? Often times, the teachable moment is related to social and emotional skills. If an issue came up during recess, I might forgo the afternoon lesson I had planned and instead use that time to address the recess trouble head-on, talking with the children and giving them a chance to role play strategies that they could use next time to avoid or diffuse the challenge. I need to be flexible and take advantage of opportunities as they arise, but also have my end goal in mind and be able to regroup and circle back to the lessons at hand so that we get to our goal. The path to the goal may be different than what I originally planned, but we can get there. This is where the art of teaching comes in.

TIPS FOR EARLY CHILDHOOD EDUCATORS

CREATING MEANINGFUL LEARNING OPPORTUNITIES FOR PRESCHOOL CHILDREN

- Create lesson plans where children have opportunities to learn through play, discovery, and their own construction of concepts.
- Plan learning experiences that will be interesting and appropriately challenging on a number of levels and appeal to children of different abilities.
- Use a variety of learning modalities (e.g., visual, auditory, kinesthetic) and materials for children to engage in learning that fit within the curriculum plan.
- Provide books and visuals that support learning and extend concepts for advanced students as well as students performing at grade level.
- Provide time for children to immerse themselves in learning without the pressure of a quick rotation from one center/task to the next.
- Make sure opportunities for practicing skills are integrated across the curriculum.

- Plan and provide opportunities for intervention within the classroom as soon as it becomes evident that a child is struggling with a concept or skill. Break down the concept or skill to determine the exact need of the child so that the intervention can be targeted.
- Consider equity, fairness, and diversity when grouping children for learning experiences.
- Provide helpful guidance and acknowledge the good work being done to practice new skills.
- Provide instructional modifications for ELL children.
- Provide a balance of individual, small group, and large group learning opportunities.

Consider opportunities for extending learning outside the program, either as projects that the educator makes available or are recommended to families (e.g., cultural celebrations, visiting children's entertainers, outdoor adventures). Also, consider bringing outside resources such as community artists into your classroom.

Technology

The National Association for the Education of Young Children (NAEYC) has recently issued a position statement about the use of technology in early childhood and school settings.[15] The position statement, devised in collaboration with the Rogers Center for Early Learning, advocates that the task of educators is to fine tune the appropriate use of applying new technologies to the learning needs of children. It makes the case that appropriate use of technology and interactive media follow a developmental progression in the way children use technology. First, young children move from exploration of the device and its use to mastery, and then use the tool to accomplish other tasks. Children need time to explore the functionality of the device before it is expected that they use it to do specific tasks.

Information about using technology for monitoring, screening and assessing children is found in Chapter 8.

15 National Association for the Education of Young Children (2012). Technology and interactive media as tools in early childhood programs serving children from birth through eight. Retrieved from: http://www.naeyc.org/content/technology-and-young-children

Using Technology in Instruction

Increasingly, early childhood educators have access to computerized tools that support the planning and assessment process. Some tools are tied to specific curriculum and include aspects that help educators to:

- Set goals and instructional plans,
- Gather data on the children,
- Document progress,
- Develop profiles of the children,
- Scaffold teaching to support individual children, and
- Identify those children who might need additional support.

Establishing Routines as Part of Curriculum

An important aspect of the learning environment is the organization of the day. The daily schedule provides a consistent structure that children can

come to expect. A routine that children can count on contributes to a sense of comfort and security.

Early childhood educators strive to develop a schedule that has a balance of quiet and active learning, time to explore at one's own pace to promote independence, and time to explore with others to build cooperative learning skills. There should be a balance between child-directed activities and educator-directed activities. There needs to be ample opportunities to scaffold instruction during the day – such as reading and writing that is modeled, shared, guided, and independent. Throughout, educators build in flexibility to be able to follow the interests of the children.

The schedule needs to be developmentally appropriate and reflect instruction in the various domains of development. It needs to match the children's current attention span and intentionally build stamina for longer periods of time on task as children mature. For the two-year-old, sitting in a circle for more than five minutes might be unreasonable; but ten minutes might be appropriate for the three or four-year-old. Similarly, large group activities for the young child might happen in several short chunks of time during the day, but, for the older child, there might be fewer chunks and more time attributed to each. Group instruction for children two or younger should be optional, meaning that children can look at a book or play quietly instead of joining a group.

Educators' Voices: It has taken me a while and a lot of coaching from my mentor to find the balance between providing total control to the students where they decide what they want to do and for how long, and my need to get through a lesson plan. Part of what I have learned is that I need to have a clear plan in my mind of the end goal and prepare myself in advance for multiple tracks I can take to get there. By having the skills, interests, and personalities of my students in mind, I am able to come up with reasonable tracks or approaches. I also have to be on my toes and be willing to flow with the children, seeking out and maximizing the teachable moments. For example, if I have a child that adores toys cars, I might join him on the floor and ask him to send the blue car my way, followed by the red car, so I am working with that child on color and multi-step tasks. I take a lot of time at the end of each week to re-group, think about what was covered, and what I need to try to teach during the coming week. With this approach, I am able to honor the children's need for independent exploration and make sure that I cover what needs to be taught.

Core Components of Each Day

Schedules for infants and toddlers are less structured than those for older children. Important aspects of learning for the infant and toddler come through the development of strong, dependable, and responsive relationships with their families and early childhood educators. The early childhood educator needs to be in tune with the child's needs and available to address needs in a timely manner. Thus, the day for an infant and toddler revolves in large part around their individual and immediate needs for diapering and toileting, feeding, rest, and cuddling. Infant and toddler schedules change rapidly and new routines should be developed regularly with the families. For the older child – the prekindergartner and early elementary school age child – a more formal schedule is desired, with specific chunks of time for learning to ensure progress is made, which facilitates development along the expected trajectory in all domains. For

children of all ages, a regular routine that the child can come to recognize is important.

For **infants and toddlers**, the general components of each day include time for:

- Arrival
- Diapering and Toileting
- Feeding, Snack and Meal
- Nap and Rest Time
- Play and Curriculum Times
- Group Time
- Outdoor Play
- Departure
- Good-bye Time

For **prekindergarten and early elementary school children**, the schedule often becomes more structured, with set blocks of time for specific types of activities and content learning in the different domains. Early childhood educators use interactive visual schedules to help the children know the plan for the day and what to expect next. In general, the core components of each day for these children include:

- Arrival
- Large Group Experiences
- Small Group Experiences
- Learning Center Time
- Independent Work Time
- Outdoor Play
- Specials (e.g., music, art)
- Snack and Meal Time
- Wrap-Up and Departure

Transitions during the Daily Schedule

Transitions can be challenging for children, especially when they are still forming a relationship with their early childhood educator and when they are engaged in an activity they feel passionate about and are not ready to move away from. Skilled early childhood educators develop routines with the children to welcome them into the environment and guide them through transitions. As a starting point, educators explain and are consistent with the flow of the day so that children come to anticipate the rhythm and a predictable schedule. To supplement this, educators use a variety of strategies to signal that a transition is approaching. Some use a rhythmic clap, finger play, song, or poem; others dim the lights in the room, ring a bell or chimes, or play soft music; and still others both verbally announce an upcoming transition and make physical contact (a touch on the shoulder of a child) to focus the child on the announcement and ready the child for the transition. Providing a one-minute warning before the transition helps children complete their tasks and mentally and physically prepare for the upcoming transition. The more intentional the transition process, the better it is for all involved.

During periods of transition, it is important that children are safe and that the mobility needs of all children are considered. The way in which the educators organize the furniture can help with a smooth transition.

Children are learning important life skills as they transition from one activity to another. Transition times are opportunities for developing social foundation skills. In this, educators help children learn how to manage choices and change, how to plan their time, how to follow directions, how to work collaboratively, and how to learn responsibility. The main idea is that transitions are a time for learning, too.

Educators' Voices: At eighteen months, Sarah was having a difficult time separating from her mother. It was her first out-of-home early childhood experience and she didn't know me yet, she didn't yet know our environment, nor did she know the other children. For Sarah, I can imagine she felt scared, sad, and alone as she was left in the arms of a stranger. Even though I rocked her, sang to her and read her a story, she cried much of the day and was so exhausted she took a very long nap. At pick up, I talked with her mom and asked if there were special stuffed animals from home that she could bring for self-comforting, and if there were certain songs, movements, or other things that I could do to

soothe her. I invited her mom to stay for a while after the rest of the children left so that the three of us could play on the floor together and she could get to know me better. We tried all of these strategies and then some more and finally, in time, Sarah began to understand that her mom always comes back for her, that I could be trusted to respond to her needs, and that she would be okay and even have fun with the other children. It took time, but as a team, we worked together until Sarah could transition more comfortably.

Educators' Voices: My four-year-olds love their time in centers and voiced protest at the beginning of the year when they realized that centers don't extend throughout the day. I tried several different ways of helping them transition from a flicker of the lights to a rhythmic clap. For the group of children in my class this year, the clap seemed to work best. When they heard it, they responded with the same rhythm, and knew that in two minutes they needed to start cleaning up their work and get ready for the next activity of the day. It took just a few days of my explaining and demonstrating the signal for the majority of the children to tune in and understand the expectation. A few children though needed a more personal reminder – a gentle touch on the shoulder for one child, making eye contact and explaining that it was time to clean up for another child, and a reassuring reminder to yet another child that the blocks would still be there the next day for play.

Transitions to a New Environment

Children should be given a lot of support when they transition to a new class, program or school. The family is an important part of this transition. The change involves many things:

- **Understanding the child** by consulting with prior educators, reviewing assessments, observing the child in the current environment, talking with the family to get a sense of the development of the child and appropriate starting points;
- **Engaging the family** by talking with them about their expectations, sharing what will be different in the new setting (both in terms of social and cognitive expectations), and learning about how they would like to work as partners in their child's learning; and
- **Addressing the necessary paperwork** by providing material to families well in advance of deadlines and supporting them to ensure they understand all requirements for enrollment, medical exams and immunizations, transfer of data, and the like;
- **Providing opportunities for the child and family to experience the new environment** by inviting them to observe or spend time in the new program or classroom, and by meeting the new educator and classmates.

The goal should be a smooth transition that minimizes any emotional concerns for the child and family, and maximizes all that is known about the child's prior progress so that there are no interruptions in learning.

Educators' Voices: The transition from the Infants and Toddlers Program to a public school can be overwhelming for children and for their families. Many families are worried about sending their three-year-old to school. To assist with this transition, I usually attend the Child Find meeting to meet with parents, and share our classroom website so that they can become familiar with our classroom. After the meeting, I set up a time for the parents to bring their child to our school to meet before the child officially starts in the program. On the first day, when the parents bring the child to the program, we do everything we can to comfort the child by showing familiar things that we know they like. I always call the parents after about an hour on that first day to let them know how things are going. I also continue to communicate with them weekly in a journal to help with their transition.

Managing the Environment for Development and Learning

Effective early childhood educators know the importance of creating both indoor and outdoor environments that foster discovery, exploration, imagination, experimentation, and observation, so that children can grow across all domains of development. They know that children learn best when they feel safe, are able to build secure relationships with the adults and children around them, and when they learn through their everyday encounters, including play. Child-initiated and educator-supported play are essential parts of learning.

The environment sets the stage for learning. Therefore, I need to:

- Reflect the goals of the early childhood program;
- Take into consideration the age of the child;
- Be developmentally appropriate and accessible to all children;
- Provide the space and materials the children need to actively engage in learning; and
- Foster an appreciation of diversity in all of its forms.

Effective early childhood educators know the importance of creating an environment where learning is integrated across domains and the layout of the room is organized to support intentional, multi-domain, or cross-curricular development and learning. They take this into consideration when choosing the materials, mindful of over stimulation, that they bring into the environment. From the carpeted play pit for babies that offers different levels to explore as they develop gross motor skills, to the science corner with microscopes and slides of cells that spark curiosity of the child in second grade, all early childhood environments should be intentionally built to support the developmental needs of the children.

Educators' Voices: A family member once asked me, "why we don't just lower the ceiling too, and then it will really feel like a mini rabbit hole!" The question was asked when the father was lowering himself into a chair sized for a toddler. We laughed together, but then I used it as an opportunity to explain that the child-sized furniture, the lower sinks and miniature toilets, the chubby paint brushes and crayons are selected to match the developmental stage of the children. I explained that as the year progresses, as the children acquire more skill and knowledge, some of the things do change to meet their developmental needs. Educators swap out the chubby paintbrushes with finer tipped brushes as fine motor skills develop. Likewise, with increased maturity, additional paint colors are added to the easel. Each component of the learning environment is informed by research and best practice so that children have the environment and tools that correspond with the progression of their development.

Paired with the physical environment is the emotional environment that early childhood educators create. An effective emotional environment ensures that children are respectfully invited into learning, are given the emotional space to explore, and can fully engage in learning.

The Indoor Environment

The indoor environment needs to be welcoming, organized, and adaptable for all types of learners. It should provide clear, wide paths for children to move safely about whether they are crawling, walking, using a wheelchair, walker, or other aid. There should be areas for large group discussion and activity as well as areas for small group exploration, with a logical flow between such areas. Children should feel that the environment provides them with choices, offering some control over what they are choosing and instilling a sense of independence, ownership, and pride in the process. Importantly, the early childhood educator must configure the environment so that children are in

view at all times both for measures of safety and for ongoing observation.

Educators' Voices: When I took over the toddler classroom, I knew right away that I needed to make some changes to the environment. Blocks were everywhere. Coats and backpacks were piled in a corner. Shelves were packed with cardboard boxes and books stuffed on shelves in a disorganized manner. The artwork was five feet off the ground – perfect visuals for the adults in the room, but not for a child to see without straining! I knew that having an orderly environment with clearly defined centers, a logical flow, and baskets and bins with labels would enable children to easily find the tools that help them learn. Where to start? I made a poster for the door with pictures of each child so they would see that when entering the room. With the main centers in mind, I drew a sketch of where things should be inside the classroom – the library, the dramatic play area, the block/construction area, and so forth. I started moving things to their respective areas. I asked the local hardware store for hooks and shelving so I could make an area for coats and personal papers. I had a rug donated and even my grandma pitched in and made floor pillows. Some of the work I did with the children, using it as a time for them to help with sorting, organizing and labeling. Together we were able to create the environment I knew the children needed and deserved so that they could learn and grow.

Educators' Voices: Two children in my first grade class are in wheelchairs, and one child has arm and leg braces. I've found that it works best when I intentionally leave generous space in the common traffic areas so that the children can get where they want with ease. I also have portable partitions and bookcases on locking wheels so that I can reconfigure the space as needed for large and small group activities. Rather than desks, we have tables in clusters so that all children – including those who use a wheelchair or other device for mobility -- can be part of an intimate community of learners.

Personal Space

At all ages, children should have a space – a cubby or locker – where their personal belongings can be stored. The space should be labeled with their name and picture so that they know precisely where their items go and can be assured that whatever they put in that space will be there for them later in the day. As they mature, having their own personal space helps them to be organized, to take care of their belongings, to store their completed projects, to be respectful of items that belong to others, and to develop a sense of responsibility. Table baskets can also be used for storing items.

Large Meeting Area

Programs should have space where all children and adults come together for group discussion and learning. The meeting area typically is inviting to children with a soft yet safe floor covering, mats or pillows for defining each child's space, and a place for the educator to guide the conversation. Sometimes the meeting area is close to a bookshelf, where the educator might have props that will be used during the discussion, or maybe it is by a whiteboard or SMART Board so that the teacher can draw or write words for visual support.

Small Meeting Area

The small meeting area allows the educator to meet with individuals or small groups for a specific purpose, usually for instruction and observation. A table may be used for children to use manipulatives, look at books, draw or write. The early childhood educator is able to address the needs of children that are at a similar stage of development or achievement level and may provide modeling for the children.

Library

The library is an important part of the early learning environment. Children are supported in developing a love of books both in groups and as an individual activity. Babies can enjoy a book during tummy time; toddlers may cuddle with their blanket and a book in the library during quiet time; and older children may visit the library throughout the day as they enthusiastically make connections between what they are learning in the curriculum and resources in the library. While books should be part of all centers, it is the library that exemplifies the commitment to language and literacy development. Books that are in the language of English language learners in the class should be a part of the library to provide opportunities for those children to be proficient in their first language.

Educators should fill the library with a range of books that are age-appropriate and leveled. They take care to rotate books in the library so that the books relate to the subjects being explored. Books are housed on a display shelf facing outwards, in labeled baskets or even in rain gutters affixed to the walls or on the floor against the wall. Categorizing and coding books helps keep them organized and easy to find.

TIPS FOR EARLY CHILDHOOD EDUCATORS

BUILDING A LIBRARY

Skilled early childhood educators know the importance of having a literature-rich environment for children. A variety of books to include fiction, non-fiction, books with photographs, and books without words are helpful to engage children in different types of print. Below are some tips from other educators that might be of help:

- Purchase books at yard sales, thrift stores, used bookstores, or the local library.
- Enroll in classroom book clubs, and encourage your families to purchase books so that you will earn books for your library.
- Apply for grants from local organizations.
- Talk with your local bookstore and develop a wish list so that people in the community can make book donations based on your list.
- Encourage families to provide a book for the library at holiday times.
- Encourage families to donate a book as part of their child's birthday celebration. Create a bookplate to honor the child.
- Rotate books with other educators in your program, school or community.
- Make use of books that you can download for free from a variety of web sites – both in print and audio format.
- Borrow collections of books from the local library.

Educators' Voices: After blocks, the library is the children's favorite area of the room. I rotate books at least once a month – bringing in more challenging books as the children develop more reading skills, swapping out topical books when we change units of study, and adding collections to the library when I realize particular interests of the children. The children squeal with delight when they come across a new book on display. Of course the books are there for enjoyment and supporting language and literacy development, but I also use the library as an area to teach children executive function skills. They learn about personal responsibility as they are held accountable for returning books at the end of each period. They learn to stop, think, and match as they file their books away matching the colored dot on the book with the corresponding dot on the basket or shelf.

Learning Centers

Much of the learning occurs in the learning centers. Children use language to express themselves and to discover cause and effect relationships through experimentation. A tremendous amount of development happens as children work within the centers. Centers and containers (e.g., baskets) can be labeled in English as well as the languages of English language learners in the class.

Learning centers often include areas for:

- Art
- Blocks/Construction
- Dramatic Play
- Literacy, Language and Writing
- Mathematics/Problem Solving
- Music and Movement
- Science and Investigation
- Technology

Early childhood educators link the learning centers to the goals of the program. They are mindful of connecting the opportunities in centers to the domains of development, providing multiple modalities, and offering multiple levels of tasks so that all learners can work together but on different activities within a center. This is especially important for educators who have children of mixed ages.

Children find the tools and materials in each center changing over time as new subjects or themes are introduced. Educators strategically rotate materials in centers so that some activities can be revisited and reused at a later time when more mature engagement may prompt new dimensions of learning.

Educators also consider how centers relate to one another and position them accordingly. For example, dramatic play and blocks can prompt related activities, such as dressing up and packing a suitcase for a trip and then going to the block area to board a block plane. At all times, educators strive to provide choices among and within the centers that are engaging, purposeful, and accessible to a variety of learners and free of gender bias.

Skilled early childhood educators establish clear procedures and a center management chart (with names and icons that match those in each center) to ensure all children have opportunities to take part in each center over a period of time. Most times, children are allowed to decide where they are going to work/play and for how long they will stay. Educators carefully observe and gently guide children so that they can experience the consistency and depth in play that is important to them, but also so that they can have a variety of experiences. Sometimes, especially with older children, the educator may incorporate a combination of procedures that are both teacher-directed and child-selected to ensure that all children have the opportunity to engage in centers that reinforce or extend a needed or specific skill.

The following table provides guidance on centers for an early childhood program. Note for each center the skills that children are working on and the suggested materials that can help facilitate that learning. This can be guidance for infant and toddler settings, as well as, early elementary grades, with educators adjusting up and down to match

children's development and safety concern. Natural materials such as bark and leaves, and a basket of pebbles can provide real-world application opportunities to almost any center (i.e., block, art, science). For additional information, visit: http://www.aneverydaystory.com/beginners-guide-to-reggio-emilia/reggio-materials/

LEARNING CENTERS SUGGESTED MATERIALS[16]

ART

Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the art center include: • Fine motor control • Eye-hand coordination • Self-expression • Pride and confidence • Expressive skills in describing artwork • Decision-making • Imagination and creativity • Cause and effect	• Modeling clay, play dough, tools • Easels, clipboards • Paint, brushes, sponges • Pencils, crayons, markers, chalk • Scissors, paste, glue • Yarn, ribbon, string, pipe cleaners, glitter, collage material • Colored paper, tissue paper, crepe paper, writing paper • Wall paper scraps • Fabric scraps, felt, lace • Magazines, catalogues • Smocks, aprons • Drying rack • Task cards for following directions to make open-ended art projects • Books about art (colors, shapes, etc.), famous artists, and their work

BLOCKS/CONSTRUCTION

Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the block center include: • Gross and fine motor control • Eye-hand coordination and sense of balance • Cooperation • Self-esteem and self-confidence • Vocabulary and communication skills • Comparative language, labeling • Concepts of number, size, shape, length, height, weight, area • Cause-effect relationships	• Wooden unit blocks, cardboard blocks, interlocking blocks • Alphabet blocks, pattern blocks • Bristle blocks, foam blocks • Lincoln logs • Boxes, planks and ramps • Block play props (maps, vehicles, toy animals, people, materials from nature) • Pictures of homes around the world • Clipboard, paper for drawing/writing, graph paper for drawing and designing • Floor plans, vinyl floor mats for designing neighborhoods and streets • Books about architects, engineers and famous building projects

16 A more extensive list is provided in an appendix of the MSDE Standards for Implementing Quality Early Childhood Education Programs

DRAMATIC PLAY	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the dramatic play center include: • Gross and fine motor control • Visual discrimination • Eye-hand coordination • Expression of feelings and emotions • Awareness of self, family, society • Cooperation, sharing, taking turns • Oral communication skills, vocabulary • Creativity, imagination, abstract thinking	• Child-sized furniture that can be arranged to make environments such as a house, store, airport, stage, construction site, restaurant • Multiethnic dolls and clothes • Dress up clothes, uniforms, scarves, belts, hats (that can be sanitized after use), shoes, wallets, purses, suitcases • Occupational props (doctor's kit, fire hose, cash register, play money, tool belt, clipboard) • Cooking supplies (measuring cups and spoons, bowls, utensils, pots and pans, dishes, muffin tins, cake pans, food containers, plastic food, empty food boxes, apron, dish towels) • Recipe cards and cookbooks • Cleaning supplies (broom, dust pan, duster, mop, ironing board/iron) • Doll house, furniture and accessories • Vase, flowers, baskets, fruit • Telephone, cell phone, clock • Full-length mirror • Puppet theatre, puppets, story gloves • Flannel board, flannel story props • Art materials to create scenery • Costumes, character tags, plays, audience cue cards • Books, notepad, paper, pencils

LITERACY, LANGUAGE AND WRITING	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the literacy, language, and writing center include: • Fine motor control and eye-hand coordination • Visual and auditory discrimination • Self-control, self-esteem and self-confidence • Understanding of the importance of sounds and print in communication • Vocabulary • Sound memory • Comprehension • Listening skills • Verbal expression • Recalling, predicting, sequencing, storytelling • Decision-making • Sharing time and materials with others	• Fiction, nonfiction and poetry books of all sizes and genres • Board books • Texture/touch books • Picture books without words • Predictable books • Concept books • Traditional literature including fables, myths, legends, tales • Historical fiction • Chapter books • Magazines and newspapers • Audio-books (including ones that match the English language learners' languages) • Books made by children • Theme related books • Newspapers and magazines • Linguistically and culturally diverse books • Stuffed animals/dolls/puppets associated with books • Paper, tracing paper, envelopes, cards, postcards • Pens, pencils, colored pencils, markers, crayons, highlighters, spacer sticks • Chalkboards with chalk, white boards with markers, iPads, clipboards, pointers • Manipulative letters, stamps, cards, letter and number cutters • Flannel boards with pictures, letters, words, numbers, nursery rhyme felt pieces, Tell Again story cards • Word bank cards-sight words, picture/word vocabulary cards • Picture dictionary, word books, beginner dictionaries • Sentence strips, story prompts, word search • Games (matching letters, sounds, opposites, sequence, go-togethers) • Bookmarks • Listening center, tapes, CDs, headsets, books • Hand mirror • Book shelves, chairs, rocking chair, cozy floor covering and pillows

MATHEMATICS/PROBLEM SOLVING	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the mathematics center include: • Fine motor control • Eye-hand coordination • Sorting, matching, classifying, sequencing, patterning • Counting, number combinations • Self-control, perseverance, problem solving, confidence • Asking questions, explaining solutions	• Pattern blocks and cards • Objects to sort and count (buttons, keys, pasta, shells, paper clips, clothespins, beads) • Number stencils, number stamps, number lines • Subitizing cards • Linking cubes and building toys • Colored cubes and tiles • Base ten blocks • Geoboards, bands, peg boards, pegs • Lacing boards, beads and string • Sorting trays/bowls • Tangrams, puzzles • Tools for measuring (scale, rulers, measuring spoons, yardsticks, timer) • Real and play money • Calculators, cash register, adding machine • Notepad, receipts, paper and pencils • Math related books, songs, poems • Math journal • Vocabulary word cards • Clipboard • Dominoes

MUSIC AND MOVEMENT	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the music and movement center include: • Gross and fine motor control • Rhythm, balance, spatial awareness • Express feelings, emotions • Self-concept • Cooperation with others • Vocabulary • Listening and auditory discrimination • Creative imagination • Exploration, discovery	• Rhythm sticks, drums, bells, cymbals, shakers, maracas, sand blocks, chimes, triangles, finger cymbals • Multicultural musical instruments • Materials for creating instruments • Guitar, recorders, song books • Piano or keyboard, CD player • Cassette recorder, cassettes, blank tapes, radio, microphones • Linguistically and culturally diverse music selections • Scarves, ballet shoes, hats, other props/costumes • Exercise mats, tapes, videos • Mirror • Paper and pencils, clipboard • Books about music and musicians • Vocabulary word cards

SCIENCE AND INVESTIGATION	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the science and investigation center include: • Eye-hand coordination • Fine motor control and balance • Cooperation with others • Pride in seeing experiment to completion • Vocabulary and verbal expression • Thinking, reasoning, observing, exploring, questioning, problem solving, discovering • Persistence • Self-control • Cause and effect • Creativity	• Scales, magnifying glasses, binoculars, measuring tools, thermometers and related books • Content based material such as batteries, wires, bells and flashlight bulbs, magnets, and corresponding books (be careful of age appropriateness for safety concerns) • Collections (rocks, shells, nests, insects) and corresponding books • Discovery tubes, mirrors • Science journals, writing utensils, clipboards, lab coat, goggles • Simple machines (pulleys, gears, wheels) and corresponding books • Woodworking supplies (bench, crab mallets, hammer, saw, screwdriver, clamp, drill, ruler, wood, pegs, and Styrofoam) • Discovery sand/water table with lid • Sand supplies (sand tables, sifters, funnels, shovels, pails, rakes, molds, measuring cups, spoons, and objects for sifting) • Water supplies (pumps, eye droppers, food coloring, water wheel, bottles, tubing, pitchers,) • Gardening tools, watering cans, seeds, bulbs, plants • Other fillers for the discovery table • Items of nature (feathers, bird nests sealed in plastic for safety, dried leaves, soil, seeds, non-poisonous berries, pods, sticks, pinecones, pebbles, rocks) • Animal environments and animals • Globe, maps • Writing materials, clipboard, books about science and nature • Vocabulary word cards

Technology	
Sample Skills and Concepts	Suggested Materials
Some of the skills being developed through the technology center include: • Fine motor control • Eye-hand coordination • Visual perception • Responsibility • Cooperation with others • Persistence • Vocabulary and linking words to pictures • Cause and effect • Following directions	• SMART Table, SMART Board • Digital books, tablets • CD and MP3 players, headphones • Computer, software, mouse, mouse pad, surge protector • Projector and screen • Digital camera, video camera • Web design programs • Educational video games that are interactive and developmentally appropriate • Digital clock, watches • Paper, pens, clipboard

Calming Area

All programs should have a calming area where children can relax. The calming area should include pillows, a comfortable floor covering, and might also include a rocking chair or other cozy child-sized furniture. Visuals and manipulatives that promote relaxation should be available and can be specific to an individual's interest or ability. In some programs this might be a fish in a clear plastic bowl; in other classrooms it might be a homemade bottle with oil and colored water that, when turned, creates a gentle wave. This should be a space in the otherwise busy program environment where children can take their own time to relax and compose so that they are ready to move on to a new activity.

Educators' Voices: We recognize the importance of responsive caregiving for the babies, and set up the environment with that in mind. When a baby is fussy, we have a rocking chair so we can soothe the baby with a story, song and the back and forth motion. If a baby prefers to walk and bounce on the hip, we can do that. We have a quiet area where we are able to lower the lights so that babies can sleep without disruption. Of course, that area is in our line of sight for continual monitoring. We also add a soft spot in our room to help our babies begin to learn that, when they are angry, upset, or crying, there is a calming-down place where they can go to work through their feelings. One educator will stay with an upset baby to offer gentle reassurance and verbalize the emotion to help the baby hear the process of learning to calm down. By the time our babies are in the toddler stage of development, they are beginning to move themselves to the soft spot for that calming-down time.

Educators' Voices: Our prekindergarten classroom has a quiet corner with a plush rug, cozy pillows, a basket of books, a listening center, and assorted stuffed animals for cuddling. We have a class lizard on a shelf in the quite corner, and some children find great comfort in watching the lizard in its cage. When children need some alone time, they know they can escape to that corner and have a respite. Sometimes there are multiple children in the corner, but they all understand the purpose and give each other time and space to decompress. For children with sensory issues, we attend to textures and how the space meets their needs. For those children who need to hold and manipulate something, we have clear cylinders with colored water and oil that they can rotate to create a calming wave.

Bulletin Boards, Walls, and Windows

Bulletin boards, walls, windows, and even the floor and ceiling all provide an open canvas for extending teaching and learning opportunities. As with the environment in general, the items should relate to the learning goals of the program, updated as topics or units of study change, are accessible to the children, and reflect the background of the children. Educators should be mindful of clutter and over-stimulation. The items displayed are a strategic part of the educational experience and not simply seen as just "decorating." Common examples of this include an interactive daily schedule, magnetized nameplates for children to indicate their center preference, and a place for every child to display their work.

These spaces provide an area to highlight the children's imagination, creativity, and experiences. When their work is at a child's eye level, all children can observe and celebrate their own accomplishments, as well as those of their peers. Such displays also provide talking points for children, family members, and educators, inviting children to select the work product to display and

describe their product (e.g., how it was created and what it means in their own words). Early childhood educators can use this as a form of ongoing assessment and an opportunity to highlight the child's development when conferring with the family.

Educators are encouraged to use displays to reflect a multicultural environment instead of posting material that represents stereotyped images related to gender, culture, and ethnicity. Photos of individual children with their families and special realia from each child's home provide more appropriate opportunities for infusing culture into the learning environment. For example, include ethnic food containers in the cooking area, cultural clothing in the dramatic play area, books about children's countries of origin in the library, and books and poems in the first language of English language learners in the literacy and writing area. A skillful educator builds the environment with the children so that they develop a sense of ownership for the environment and know where to look for different resources.

Educators' Voices: My two-year olds are quite the artists! They love to paint with their fingers or wide brushes and draw with markers. I've come to realize that decorating the room with their creations means much more to them (and their family too) than putting up store-bought posters. I put out just single colors of paint each day for two weeks and invited the children to, for example, "paint what you think the color yellow means to you." One child painted a circle to represent the sun, another painted a u-shape to represent a flower, another used wide and long strokes to paint "happy." We put up plain white butcher paper from the floor to four feet off the ground and clustered the paintings by color. We labeled the paintings with the child's name and title and above the cluster of paintings, by color, we wrote the color name. The children were thrilled to see their artwork on display, to show their family members their work and to explain that the clusters of paintings were all yellow, and the like. Not only did we transform the room from the store-bought stereotypical school posters, but we created a real environment of warmth and accomplishment that the children could own and celebrate.

Educators' Voices: My second graders work diligently in science, creating scientific drawings of organisms like dinosaurs that lived long ago, and then writing a descriptive essay of the organism. Because it is a multi-step unit of study, children are encouraged along the way to post relevant items in their designated space on the bulletin board. For example, Mark studied about the diplodocus. First, he put in his space the word diplodocus, and then printed a picture of a diplodocus from the Internet. After reading and taking notes, he posted his three favorite facts about the dinosaur. Then after he completed his drawing, he placed his picture next to the one he printed off the Internet. He used a graphic organizer for preparing his thoughts for his essay. It went up next to the three favorite facts. Ultimately, the completed essay was put on the bulletin board. Children were able to see the progression and celebrate the steps along the way. Whenever their family came to class, the children were always excited to show what they had created and the parents were able to see the process and progression.

Shelves, Cabinets and Work Surfaces

Early childhood educators can use the shelves, cabinets, and other furniture to create work areas that are discrete yet flexible. Easily movable furniture enables educators to expand a work area when needed and to ensure access to all children. Shelves enable educators to place materials close to their related learning spaces. Some materials can be stored directly on open, labeled shelves (e.g., blocks or boxes of puzzles); other materials might be best suited for a clear, labeled container (e.g., crayons, Legos) so that the children can see the objects, know what to take, and where to return them at the end of an activity. Shelves provide an opportunity for labeling in both English and the home languages of the children to promote literacy.

Depending on the age of the children, tables or desks may be part of the program environment. In all cases, tables and desks with chairs should be child-sized and arranged to foster a community of learners, where students work collaboratively and share in conversation and discovery.

Indoor Gross Motor Areas

Skilled early childhood educators also make use of the indoor environment for gross motor learning and play, especially for infants and toddlers, who need lots of opportunities for crawling, climbing, and maneuvering objects (e.g., push and pull toys). For older children, educators use the indoor environment for gross motor activities (e.g., circle games) during inclement weather and at other times of the day when movement or a "7th inning stretch" is needed to refocus children before forging forward with cognitive tasks.

Technology

Refer to the Learning Center Suggested Materials table for a list of different types of technology. Technology can be used in developmentally appropriate ways to extend or reinforce the curriculum. Care should be taken not to use technology to replace educational learning opportunities, such as time with the educator, play, outdoor experiences, and social interactions with peers and children. Technology should not be used as a passive, non-interactive tool.

The American Academy of Pediatrics (AAP) Recommendations: Media and Children

1. The AAP discourages media use by children younger than two-years-old.
2. The AAP realizes that media exposure is a reality for many families in today's society. If parents choose to engage their young children with electronic media, they should have concrete strategies to manage it. Ideally, parents should review the content of what their child is watching and watch the program with their child.
3. Parents are discouraged from placing a television set in their child's bedroom.
4. Parents need to realize that their own media use can have a negative effect on their children. When television that are intended for adults are on with a young child in the room it is distracting for both the parent and the child.
5. Unstructured playtime is more valuable for the developing brain than any electronic media exposure. If a parent is not able to actively play with a child, that child should have solo playtime with an adult nearby. Even for infants as young as four months of age, solo play allows a child to think creatively, problem-solve, and accomplish tasks with minimal parent interaction. The parent can also learn something in the process of giving the child an opportunity to entertain himself or herself while remaining nearby.

Source: http://pediatrics.aappublications.org/content/128/5/1040.full?sid=90c428d6-df4a-4e16-8862-2ef44f314693

Well-designed preschool television shows for two to 5-year-olds can have a beneficial impact for children, especially when the educator is involved by commenting on the content during the viewing (Guernsey, 2012). Such shows can have positive effects on academics, social-emotional development and problem solving (e.g., Dragon Tales, Blue's Clues). Just as skilled early childhood educators consider what books to place in the classroom library and how that relates to the curriculum and learning goals for each child, they also need to consider what technology (both hardware and software) to make available in their program for use by the children, and how the use of that technology complements the more traditional learning activities. It is important for educators to model how to use technology to build background knowledge and answer questions. Technology devices, such as iPads, can be effective if they include opportunities for children to engage in collaboration (i.e., taking turns, working together on a project) in tasks that support learning.

Educators' Voices: The younger children in my home-based child care program love it when I videotape them singing and acting out favorite songs. We do this on a regular basis and build a library of video clips that they can watch and sign along to during center time. Marco is just learning English, and it seems that these videos are helping him to recognize the words and grow more confident with his English speaking abilities. As a special surprise, sometimes I get the older children to secretly tape a song while the little ones are napping and then all can enjoy it after nap. Little Emma is only two and sometimes she really misses her big brother when is away at school. To ease her fears until he comes to my home after school, I can play some of the songs that he taped. I'm hoping to find the time to make a DVD of the videos so that all of the families can have a collection of the songs to play at home.

Educators' Voices: In second grade, the curriculum states that students are to learn about how people in Maryland, the United States, and the world are alike and different. While there are many books in the class and school libraries that the children can turn to for this area of study, I've also found that the National Geographic Kids website is a terrific tool, especially when the children are looking to learn about other countries. My students are able to go onto the website and look up the country they are studying. They find information about the geography, the history, the people and culture, the government, and much more. There are photos and videos that supplement the information. This is just one of many web sites that they can use to supplement the resources we have for them in the classroom and school.

Clean-Up and Toileting Areas

All programs should have a clean-up area that children and adults can use for regular hand-washing and clean up. Children should wash hands multiple times a day – upon entering the classroom, before snack or meal times, after outdoor play, after using the bathroom, after messy projects, and even more frequently during flu or cold season. An abundance of soap and disposable towels should be available, as well as a step or stool if the children need additional height to reach the faucet independently. Early childhood educators know the importance of regular hand washing for themselves after helping with toileting, diapering, or wiping noses, before preparing food, and after messy projects. Signs to remind all of proper hand washing techniques should be near every sink. In addition to the signs, educators often also have songs that they sing with the children to remind them of proper hand washing. All children need easy access to a bathroom for toileting.

Licensed programs serving infants and toddlers are required to have a separate diapering area. All supplies – for baby and provider -- should be easily accessible so that the early childhood educator can always have one hand on the child while gathering supplies. A mobile or poster in the child's line of sight during diapering is a good idea. Every moment of the day provides a learning opportunity and a poster or mobile can be used as a point of conversation between the child and educator.

Educators' Voices: So much learning happens for babies during diapering. Consider four-month-old Lila, for example. I convey respect when I speak to her and announce that I will pick her up to change her diaper. When I rest her on the changing table, I always make eye contact and talk with her, allowing time for her to respond so we develop the serve and return of conversation. I explain that I will change her diaper and use words to describe what I'm doing. For example, "Lila, let's take your right foot. Off come the pants over your right foot." I always have a mobile or engaging poster by the changing table that is also something we can use for conversation. Of course, there are simple word games I can play with Lila (where is your nose, where are your eyes) or rhymes (this little piggy went to market). At the end of the diaper change, I always say "all done and let's get up" and lift Lila up for a smile and hug. As the children get older they often smile and clap with joy at the "all done and let's get up." Silly as it might seem to some, diapering is a very important teachable moment, and so I make the most of it.

TIPS FOR EARLY CHILDHOOD EDUCATORS

CREATING AN INDOOR ENVIRONMENT THAT FOSTERS EARLY DEVELOPMENT

- Ensure children are able to make choices about where they want to work and that there are enough choices so that children can spread out and comfortably work in the space.
- Create logical traffic patterns so children can move easily from one area to the other.
- Provide a large floor space for group activities and smaller areas for educator-directed small group exploration.
- Eliminate visual clutter. Plan carefully what will be placed on boards, shelves, and wall space so that it relates to the curriculum and honors the creations of the children.
- Use clear, labeled containers for storage, so items are visible and easily organized and near the center in which they will be used.
- Use shelves, dividers, carpet, and tables to create discrete yet flexible work areas that allow children to work alone or in small groups, without concern that their work will be disturbed.
- Place messy areas (easels, sand or water table) over flooring that is easy to clean.
- Find opportunities to place mirrors and natural elements in different locations to spark interest or a new use.
- Give each child a defined and labeled place for personal belongings.
- Ensure that blind spots are eliminated to permit supervision and safety.

The Outdoor Environment

All children need to have opportunities to be outdoors every day. Louv (2008), Nelson (2012) and others highlight a growing body of research that emphasizes the importance of connections to nature in supporting all areas of development and wellness. Time outdoors for structured and unstructured play contributes to children's development and learning. It is a necessary part of the curriculum. As such, time outdoors needs to be built into the day and not offered as a treat or reward, nor taken away as a punishment or consequence.

Some children crave to be outdoors where they can engage in more large motor development activities and imaginative play. Others who are seeking sensory stimulation need time to safely push, nudge, and bump. Still others simply enjoy the fresh air, and may gravitate toward quieter activities like drawing on the sidewalk with chalk, gathering and comparing leaves, following a trail of bugs, or looking at a book in a shaded area. In all cases, children are able to continue to learn through play, exploration, and discovery in the natural environment.

Skilled early childhood educators make outdoor time intentionally linked to the learning occurring indoors so that skills are reinforced in multiple venues. For example, math concepts that are being explored indoors may be extended in the outdoor environment by introducing into the sand box a bucket and measuring cups for counting the number of scoops that it takes to fill the bucket.

The outdoor environment also provides time for children to learn to play together – how to coordinate their actions for jump rope, how to take turns for hopscotch, how to collaboratively build tunnels in the sand, and how to follow directions in a game.

OUTDOOR EARLY LEARNING ENVIRONMENT

OUTDOOR AND GROSS MOTOR

Sample Skills and Concepts	Suggested Materials
Some skills being developed through outdoor and gross motor centers include: • Gross motor • Eye-hand coordination • Balance, manipulation • Strength, endurance • Cooperation with others, turn-taking • Vocabulary, positional words • Creativity, imagination, exploration, problem solving, discovery • Spatial relations	• Low balance beam • Rocking boats, teeter-totters • Climbing structures, stairs, slide • Wheel toys, pedal toys, wagons, ride-on vehicles • Push and pull toys, scooter board • Parachute, tunnels • Assorted balls, jump ropes, hula hoops • Sidewalk chalk • Sand and water table and toys • Science discovery tools, binoculars • Garden and gardening tools • Dramatic play material • Outdoor easels, paint brushes • Games (ring toss, bean bags, bowling) • Paper, pencils, clipboard • Tables, chairs, benches • Shady or partially covered play area

Educators' Voices: I enjoy reading A. A. Milne poetry and stories to the children in my two-year-old classroom. They can easily affiliate with Christopher Robin, Pooh, Piglet, Tigger, Kanga, Roo, and even Eeyore, and learn so much through both the story lines and the rhythm of words. One of my favorite days recently was when we read part of the story of Pooh being stuck in Rabbit's hole and then went outside and acted the story out using a tunnel. The children giggled and giggled as they used buckets from the sandbox and pretended they were eating honey like Pooh. And then when it was time for Pooh to leave, one child crawled through the tunnel and got stuck, just like Pooh. Another child pretended she was Rabbit and pushed and pushed with no luck. The other children lined up on the other side of the tunnel and shouted, "heave ho, heave ho" until Pooh was free. Of course the child playing Pooh proceeded to run across the playground and wrapped his arms around a tree, now pretending to be stuck to a honey tree. They all laughed and laughed. It was amazing the details that they remembered from the read aloud. The children enthusiastically worked together to re-enact the story using the outdoor setting and materials as the stage and props.

Educators' Voices: I take my group of prekindergarten children on a "walk around" field trip, where we step out into the community and have specific things we are looking for. It is a developmentally appropriate scavenger hunt where children are learning social skills as they work with a partner, and are building language and literacy skills too. I give each pair of children a clipboard, a sheet of what they are looking for (with both the sight word and a visual representation), and a pencil so they can check off what they find. In the beginning of the year, we start simple with things like a car, bus, a stop sign, or the sun. As the year progresses, the challenges become more complex, gathering ten leaves, spotting five birds, finding the letter "T" or the number "4" so that they have to look at street or building signs more carefully to see if they can identify the letter or number. We also take time to just be quiet and become "in-tune" with our natural environment. We feel the wind, watch the clouds and the changes in light patterns, smell the damp pavement just after the rain, and listen to the birds, cars, buses, planes, or trains that pass through and over our community. The children love to be out exploring and donot realize that this is an intentional learning activity for them.

TIPS FOR EARLY CHILDHOOD EDUCATORS

CREATING AN OUTDOOR ENVIRONMENT THAT FOSTERS EARLY DEVELOPMENT

- Provide structures and opportunities for children to crawl, roll, jump, climb, and swing to promote sensory integration.
- Use balls, buckets, hoops, jump ropes, ride-on toys, and other equipment to promote physical development.
- Give children opportunities to experiment with speed, directionality, and other large-muscle movement.
- Use props – hoses, buckets, costumes, and boxes - to stimulate dramatic play.

- Provide space for children to dig, gather, and investigate.
- Engage children in cooperative games to promote social and emotional development and conflict resolution skills.
- Provide music and instruments for children to dance, march, and create their own sounds.
- Provide materials for building and chalk for drawing.
- Take the children on a walk to explore the area around them.
- Make sure there is an outdoor safety plan and emergency procedures.

Materials for Both the Indoor and Outdoor Environments

The tables in the previous two sections suggest materials that can be incorporated into the learning environment, both indoors and out, to spark creativity, imagination, and exploration. Froebel and Montessori both emphasized the importance of children engaging with authentic materials as they construct their learning. Care should be taken to ensure the material is developmentally appropriate, safe, and that it supports the learning goals at hand. There should be a mix of materials to support all types of learners so that all children can work to develop new skills and understanding. Further, materials should reflect the linguistically and culturally diverse community of children served, so that all children see themselves reflected in the materials and are able to gain appreciation for both their home culture, as well as, the cultures of their classmates.

Safety and health

Ensuring that children are safe at all times is of paramount concern to all educators and parents. All early childhood educators must have an emergency and disaster plan and periodically practice it with the children. Substitutes should be briefed on the plan, as well. It is important that families are aware of the plan and that they know what they are to do in the case of an emergency. An emergency contact list and first aid supplies should be readily available.

First Aid at the Playground

Playground accidents are to be expected and playground supervisors should know basic first aid procedures. Most playground accidents result in bumps, abrasions, cuts, sprains, and an occasional broken bone. If an injury occurs on the playground, the following steps serve as a guideline for the playground supervisor on duty:

- Stay calm and don't panic
- Analyze the situation completely and quickly
- If basic first aid is required, begin at once using universal precautions
- Stay with the child and seek assistance from support staff
- Unless the situation is serious, the individual on duty should not leave the playground
- If a broken bone is suspected, treat as a fracture
- Do not move child if a fracture of the back, neck, leg or skull is suspected
- Call or send for help immediately
- Know your physical limitations when trying to help an injured child

Source: Maryland State Department of Education (2008). Playground and Water Safety Guidelines. Retrieved from: http://www.marylandpublicschools.org/NR/rdonlyres/ECEE0B66-3C10-40C0-A9F4-0FED27EEC35D/16701/PlaygroundSafety_April08.pdf

The early childhood educator needs to take into consideration the health needs and allergies (e.g., peanut, gluten, latex) of all children so that the environment is accommodating and safe for all. Furthermore, the early childhood educator should ensure that the materials used in the classroom are safe (non-toxic, smooth edges, age appropriate, regularly sanitized), electrical outlets are covered, and that children are visible in all areas at all times. The requirements for child care programs are outlined in the regulations available on the website at: http://www.marylandpublicschools.org/MSDE/divisions/child_care/regulat.html.

Licensed child care providers are well aware of the Code of Maryland Regulations (COMAR) related to the environment, daily schedule, and safety. The guidance in this pedagogy guide supports those regulations. A link to COMAR is included at the end of the chapter.

Educators' Voices: I am continuously thinking about the children's individual and collective development. Am I providing the opportunities for them to acquire the skills they need to develop to their full potential? Am I paying enough attention to the development of their social foundation skills so that they have a strong approach to learning and are developing executive function skills? Just as important though are a set of safety questions that I must continuously think about and prepare for. What are the safety procedures for fire, a non-authorized adult, a natural disaster? Who has allergies; what are they; what are the symptoms to look out for; how do I guard against triggering an allergy; and what response is needed if there is an allergic reaction? My goal is to provide the children a safe, developmentally appropriate experience, and, to do this, I have to think about their social, emotional, physical, and cognitive development, as well as basic safety issues, and cover my bases so all the children can thrive.

Taking measures to ensure emotional safety for young children is just as important as ensuring a safe physical environment. Early childhood educators should always be aware and sensitive to any potential conflicts among children. (See Chapter 4 for more information about diversity and socialization)

FAMILY VOICES

Weekends were a nightmare in our household with three children – ages three, eight and ten! On any given weekend, there is a sports game, piano lesson, birthday party (or two), play date, or sleep over. That is on top of homework, laundry, grocery shopping, cooking, church, and all the errands I've put off during the week. And the toys – they are everywhere! By noon on Saturday, I am already exhausted.

One morning when I was dropping Timmy off at his prekindergarten, Mrs. Foster, the teacher, asked me if all was okay. I told her that my children are happy and I love my work, but I'm constantly exhausted and the weekends are most overwhelming. I said I have no idea how she handles a group of twelve enthusiastic three-year-olds when I can hardly keep up with my three children. She listened, gave me a hug, and offered to share some strategies that they use in the classroom that I might want to try at home. She invited me to join her for tea any day after pick-up.

When Mrs. Foster and I met, I apologized for unloading on her and again relayed how overwhelmed it can sometimes be. She listened, asked some questions and then asked if I'd like to hear about some things that they do in the program to help manage all that is going on. She was so supportive and nurturing; not bossy, and there was no "you should do this" tone in her voice.

The things she shared – making a schedule, talking it through with the children, knowing what to expect and anticipating transitions, ensuring each child had a task/job that benefits the whole group of children, making the rules of the centers so that children know if they are responsible for putting things back before they move on to a new activity. This all made perfect sense and I could see how every idea could be incorporated into what we were doing at home. I gave it a try the very next day and of course, it wasn't perfect, but the schedule helped us all know where we needed to be and when; the task/job idea was translated into the oldest helping me with unloading the dishwasher, the middle child taking out the trash and the youngest helping me sort the laundry. And though they needed reminders, the children caught on to the idea that they should take responsibility for putting their things away rather than expecting me to do constant clean up.

I was able to create an environment and routines that would help our family more successfully and happily navigate our many commitments.

TAKE TIME FOR SELF-REFLECTION...

How do you connect goals for skill development with learning opportunities, classroom materials, and resources? Who can you turn to for guidance?

What opportunities do you have for collaborative planning within your program, school, or community? If none, where might you go and what might you do to bepart of a professional network of educators sharing knowledge and experience?

How does your classroom look when you lower yourself to the eye level of the children? What is easy for you to see? What is difficult to see? What is most appealing to you? What changes might you then make to the environment?

How often do you change the bulletin boards and materials within the centers? How do you make sure that the work areas, centers, bulletin boards, and materials available all connect with the curriculum being covered at a given point in time?

Whether you are sending or receiving children, how do you ensure transition is smooth for the child and family? How do you make sure that starting points are identified and progression is continuous?

What have you done (or might you do) to ensure that the environment is accessible for all learners? Where might you turn for guidance and resources?

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WEB LINKS

Bank Street Curriculum
http://bankstreet.edu/family-center/curriculum/

Building Inclusive Child Care
http://www.northampton.edu/Early-Childhood-Education/Partnerships/Building-Inclusive-Child-Care.htm

CAST Universal Design for Learning
http://www.cast.org

Center on the Social and Emotional Foundations for Early Learning (CSEFEL)
http://www.csefel.vanderbilt.edu

Center on the Developing Child, Harvard University
http://developingchild.harvard.edu

Children and Nature Network
http://www.childrenandnature.org

Code of Maryland Regulations
http://www.dsd.state.md.us/comar/

Creative Curriculum
http://www.highscope.org/

Danielson Framework for Teaching
http://www.danielsongroup.org/

Division for Early Childhood, Council for Exceptional Children
http://www.dec-sped.org

Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
http://dibels.org/

Environment Rating Scales
http://ers.fpg.unc.edu/environment-rating-scales

Head Start Design Guide
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/fiscal/prop-stnds/property/HeadStartDesign.htm

High Scope
http://www.highscope.org/

Maryland Child Care Licensing Regulations
http://www.marylandpublicschools.org/MSDE/divisions/child_care/regulat.htm

Maryland Common Core Curriculum Frameworks
http://mdk12.org/instruction/commoncore/index.html

Maryland Healthy Beginnings
http://marylandhealthybeginnings.org/

Montessori
http://www.montessori.edu/

National Association for the Education of Young Children
http://www.naeyc.org

National Board of Professional Teaching Standards, Early Childhood Generalist Standards, Third Edition
http://www.nbpts.org/sites/default/files/documents/certificates/nbpts-certificate-ec-gen-standards.pdf

National Center on Universal Design for Learning
http://www.udlcenter.org

North American Montessori Center
http://www.montessoritraining.net

Project Security Blanket
http://www.projectsecurityblanket.org

Ready at Five
http://www.readyatfive.org/

Tools of the Mind
http://www.toolsofthemind.org/

World-Class Instructional Design and Assessment
http://www.wida.us

ZERO TO THREE
http://www.zerotothree.org

CHAPTER 7: PEDAGOGY: MAKING IT THOUGHTFUL AND INTENTIONAL

This chapter defines pedagogy as the art or practice of teaching and its impact on the quality of the interactions between early childhood educators and children, the extent that children take ownership of their learning and the rigor of the learning. Five areas of pedagogy are described: communication, engagement, questioning and discussion, feedback, and differentiation. It illustrates the importance of having pedagogy that is thoughtful and intentional in creating an environment that supports the development of secure emotional foundations for young children.

◆ Helpful terms ◆ How does pedagogy impact instruction? ◆ Communication ◆ Engagement ◆ Questioning and discussion ◆ Feedback ◆ Differentiation ◆ Resources and web links ◆

HELPFUL TERMS

Assessment	An in-depth look at how a child is developing. It may be specific to one area of development or the whole child. Assessment uses both formal and informal tools for gathering information on an ongoing basis.
Learning Centers	Smaller spaces within the program environment where children are able to engage in hands-on learning activities, which provide application, reinforcement, and enrichment of previously taught content, concepts, and skills in the various domains of development.
Diagnostic Assessment	This type of assessment is used to determine a child's level or knowledge. Pre-assessment is an example of diagnostic assessment and is done prior to instruction.
Domains of Development	Domains of development include social foundations, physical well-being and motor development, language and literacy, mathematics, science, social studies, and the arts. Early learning programs intentionally work with children to support acquisition of new skills in each of these domains of development.
Differentiation	Creating multiple paths so that children of different abilities, interests, and learning needs experience equally appropriate ways to achieve learning goals. It is a philosophy about teaching and learning that addresses what is needed for individual children to meet with success.
Danielson Framework for Teaching	Charlotte Danielson's *Framework for Teaching* is a research-based set of components of instruction grounded in a constructivist view of learning and teaching. The framework is organized in four domains: planning and preparation, classroom environment, instruction, and professional responsibilities. While it is written with K-12 in mind, many early childhood educators in Maryland use it as a guide to shape their work.

DIBELS	The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) is a formative assessment that measures early literacy skills from kindergarten through sixth grade in short (one-minute) fluency measures.
Engagement	Engagement is being meaningfully involved in an activity that requires thought, whereas involvement is reciprocal and has a shared responsibility of all partners.
English Language Learner (ELL)	English Language Learner is an individual who was not born in the United States or whose native language is a language other than English. ELLs bring with them diverse histories, traditions, and varied educational experiences.
Feedback	Information given to a learner about his performance or understanding.
Formative Assessment	These assessments are used to monitor children's progress along a continuum of typical development. Formative assessments help early childhood educators monitor individual children's progress, individualize learning opportunities and plan for intervention, and engage in real time curriculum planning.
Graphic Organizer	Graphic organizers are visual representations of knowledge, concepts, or ideas.
Manipulatives	The tools, objects, or materials that children use to learn new concepts.
Scaffold	Scaffolding occurs when the teacher provides support, while also challenging the child to try something a little more difficult.
Summative Assessment	Summative assessments summarize the learning of children at a particular point in time related to content standards. Summative assessments typically include well-defined evaluation designs that are field-tested, and have fixed content and time associated with them. Summative assessments need to be used as the developer intended for the results to be accurate.

STEM	STEM refers to science, technology, engineering and math learning opportunities.
Teaching Pyramid Observation Tool (TPOT)	The Teaching Pyramid Observation Tool is used in conjunction with the Center on the Social and Emotional Foundations of Early Learning to support educators in understand how to work with children and create an appropriate environment for children who have challenging behaviors.
Universal Design for Learning	Universal Design for Learning is a belief and set of practices in Maryland that ensure all children have access to learning opportunities that support their individual development.

How Does Pedagogy Impact Instruction?

Pedagogy is the art or practice of teaching. An educator's effectiveness in pedagogy plays a major role in the success of children learning. Recent research findings have highlighted the importance of pedagogy in quality learning.

A report by the Institute of Education Sciences (2013) at the U. S. Department of Education, Synthesis of IES Research on Early Intervention and Early Childhood Education, has highlighted the general instructional practices in prekindergarten classrooms that correlate with the achievement of children. It cited the quality of teacher-child interactions and teacher feedback on the impact of positive children's outcomes. The study found that children in classrooms with high levels of emotional support and instructional support demonstrate greater growth in academic and social development (key findings of the study are found at the end of this chapter).

Numerous authors have written on the impact of instructional strategies with similar findings. Robert Marzano (2003) has carefully researched the influences on student achievement and has identified the teacher as being the most important factor in student learning. Similarly, Charlotte Danielson (2007) has created a "Framework for Teaching" as a structure that describes the complexities of teaching and establishing caring relationships. Teaching, of course, does not occur in a vacuum and much has been written about the effectiveness of professional learning communities in bringing about change. Lucy Calkins (2012) in her book *Pathways to the Common Core: Accelerating Achievement* cites the importance of educators collaborating, visiting other classrooms and sharing best practices. Indeed, whether there are two people or fifty-two people in a setting, the degree of collaboration and communication of ideas is essential to improving education and the quality of teaching.

Pedagogy effectiveness operates in tandem with a learning environment that fosters the development of social foundation skills that children use throughout their school years and indeed, into their adult life. The MSDE Standards for Implementing Quality Early Childhood Programs is an excellent source for strategies that are developmentally appropriate and crucial in mastering the domains for children to be ready for kindergarten.

Early childhood educators use many pedagogical practices as they work with children. For the purpose of this chapter, we will examine five areas of teaching pedagogy that are critical in helping children achieve success, whether the environment is a child care center or a second grade class in public school. The five areas are **communication, engagement, questioning and discussion, feedback** and **differentiation.** In practice, the areas are frequently interrelated with each other. For example, quality feedback improves engagement just as questioning can positively impact communication. The quality of adult-child relationships that are embedded in these five areas is of utmost importance in establishing an environment of trust and emotional support.

Communication

Communication takes place with our words, gestures, actions and in the physical layout of the classroom environment. Greeting children with a smile as they enter the room and engaging them in a conversation signals to them that the educator cares about them and values each person as an individual. For example, noting that they have a new pair of shoes or talking about an interest they might have (e.g., sports, dolls, dinosaurs) communicates "I care" and fosters a positive relationship. These attributes are essential to having a nurturing and secure learning environment.

Educators' Voices: Each morning, when my three year old children enter the preschool classroom, I kneel down to their

level and greet them in a friendly manner. I tell the child, "Good Morning!" By kneeling, I am at the child's level, eye-to-eye. Sometimes we will hug and give a high five. I smile warmly and remind the children to find their name with their photo and to put it into the chart that tells who is in school today. When the child is putting his or her name into the chart, we identify the first letter in his or her name. Later in our school year, I may use a puzzle piece over the child's photo to encourage them to recognize just their name. Next, the child can help to assemble the puzzle and begin to be more engaged in our classroom. Establishing a daily, consistent routine, allows the child to know what to expect in school every day. Using a friendly greeting by the teacher encourages each child to feel special and welcome in our class!

Educators' Voices: In my pre-K classroom we use personal experiences to share on an ongoing basis. As part of our social studies program, we use a feelings cube to roll and share personal stories that relate to that emotion and act out or role play appropriate solutions to problems. To begin, as the teacher, I overplay being frustrated or angry that someone has knocked over my block tower. The children see firsthand appropriate versus inappropriate responses to emotional issues that we all face. Infusing the "over the top" humor in frustration allows the children to see that we all have emotions we have to address and there are great ways to do so without being harmful or hurtful to ourselves or others.

Communication during Instruction

Clear directions and explanations that are given in "bite size" amounts will help children with the completion of tasks. The amount of adult talk should be concise with an awareness of the reaction of the children as the explanation is being given. Children should know the purpose of the activity and the expectations should be clear and easy to understand. Some early childhood educators may vary the volume of their voice to maintain the attention of students. Lowering your voice temporarily may encourage children to stay focused. Educators will often ask children to repeat the directions or to demonstrate what the expectations are after the explanation has been given.

The set of practices in the Universal Design for Learning (UDL) is helpful when educators are communicating to students (refer to Chapter 2 for a description of UDL). One way is to use multiple means and modalities when presenting information to increase the children's attention and understanding of the task. For example, using visual aids such as pictures or role-playing the steps of the task will help clarify the expectations and clarity of the activity. Combining any of the modalities of auditory, visual, tactile and kinesthetic will increase the involvement and success of the students. Presenting the information in a second language will also help English language learners better their understanding of the activity.

The Importance of Learning Centers in Fostering Communication: Supporting Imaginative Play

Skilled early childhood educators understand the importance of allowing a balance of teacher-directed and student-directed activities during instruction. Classrooms that are too structured or teacher-directed hinder the opportunities for children to practice independently self-regulation, communication, language and other essential skills that are important in being confident and independent learners. Learning centers that are purposeful provide valuable opportunities for enhancing these skills and negotiating with their peers in a quasi-structured environment.

Researchers Elena Bodrova and Deborah J. Leong (2003, 2005) have cited drama or play centers as being especially critical as forums for children to develop self-regulation. Such activities nurture foundational cognitive skills as well as academic skills. The educator's role is important in affording opportunities for intentional questioning and use of specific vocabulary to increase children's learning. The block center also illustrates the richness of play as a foundation for STEM education. The STEM Standards of Practices of engaging in logical reasoning and engaging in inquiry are

used as children practice building and testing structures such as towers and bridges. Measuring, counting and spatial skills are used during block play. Language, specifically spatial words such as between and above, is used as children construct and explain their structures.

Educators' Voices: While completing a kindergarten unit about vehicles, I observed two children in the block center. Each had built a ramp for their vehicle to roll down. I engaged them in conversation by asking them to explain what they had made. The children were eager to share their creation, and were delighted that I showed an interest in their work. They explained they were racing to see whose vehicle is fastest. I further engaged them in conversation, as well as critical thinking, by asking them to experiment with their ramps to see if they could get their vehicles to go even faster. They began discussing ways to alter their ramps. After making several ramp variations they announced that the longer and higher ramp is the fastest.

Educators' Voices: My first graders were beginning their unit of study about magnets. I put out several different types and sizes of magnets and a whole basket of objects, some would attach to the magnet and others that would not. The children were so fascinated to explore and see how the different objects responded to the magnetic field. They instinctively began to categorize the objects into those that "work" and those that "don't." Intentionally switching roles, I became the one asking "why" questions, and listened to the children as they tried to understand what was happening with the magnets. A few children noticed that I had added some books about magnets to the display in the library corner and made a beeline to the resources to scour them for more information. At the point that they seemed to have considered many options for why the magnet responds the way it does, I pulled the children together and invited them to share their observations with the full group. After the children all had a chance to contribute, I shared a summary of the magnet field lesson from the curriculum.

Engagement

Engagement is essential for learning. An early childhood educator constantly monitors the learning environment to improve the engagement of children. The art of teaching requires awareness by the educator of the children's interaction with the content as well as their interaction with the educator.

Is being engaged the same thing as being busy? Danielson makes the distinction between being busy and being engaged. Completing an activity that requires virtually no thinking would be an example of being busy, whereas completing a task that requires "intellectual involvement" would be engagement. For example, following along and developing an understanding of a story being read by an early childhood educator would be engagement. Likewise, creating a story or narrative writing, a Maryland College and Career-Ready Standard for writing, would require engagement. In essence, engagement requires thinking by the child.

As early childhood educators, we are familiar with different methods to increase engagement. Presenting information in multiple ways (e.g., visual, auditory, tactile, kinesthetic), varying the size of groups during instruction, and connecting prior knowledge of the children with the new information are examples. The educator may decide to teach children in a large or small group, but still build time in the lesson for them to "turn and talk" to increase their engagement. The proper use of hands-on materials or manipulatives is effective when accompanied by the active construction of understanding. Solving problems and conducting experiments are wonderful opportunities that foster engagement. Technology when used correctly can engage children with activities requiring thinking and decision-making.

Children having a secure relationship in a trusting learning environment are more likely to be engaged. Their feelings of comfort and being accepted are factors in determining the level of engagement. Being anxious or bored would distract

someone from participating fully in a learning experience. Children that have formed a bond with an adult as well as their peers are more likely to participate. Connecting the activity to the children's lives often increases their interest in wanting to learn.

Strategies for Engagement

Robert Marzano and Debra Pickering (2011) lists four categories of strategies that educators can use to foster engagement: using effective pacing, demonstrating intensity and enthusiasm, building positive relationships with children and between children, and using effective verbal feedback (discussed later in this section).

1. **Pacing** is contingent on having established routines and rules. For example, playing soothing music when transitioning from one activity to another is an effective method of ensuring the next lesson begins in a timely manner. Monitoring children's understanding and facial expressions can alert the educator to clarify or slow down her speaking. Planning activities for children that finish the task early is another way of keeping children engaged.

Educators' Voices: I incorporate physical movement in the daily routine with my second grade students. When we are transferring between English Language Arts rotations, I have students hop, skip, or do some other kind of movement. When we are transitioning from content areas, I turn music on and I lead my students in a series of exercises. Before we are done they get a few minutes of free dance. I have seen so many benefits to making physical activity a part of our day. My students' attention spans have improved, their participation level has increased, there are fewer discipline issues, they can sustain longer periods of work time, and grades have improved.

Educators' Voices: Transitioning from center time back to whole group can be difficult for some children in my pre-K class. We begin the transition routine on the first day of school and model and practice throughout the year. I begin by giving students five minute and one minute warnings so they know that play time is coming to an end and that they should start to wrap up what they are doing. This makes clean-up time less abrupt. We have a set of mini wind chimes that we then ring to signal the end of center time. After much modeling and practice, students know that when they hear the chimes they are to stop and clean up. When they are finished cleaning, they sit down on spots of tape at their centers and give a thumbs up to indicate to the teacher that their center is clean. This type of transitioning puts the responsibility on the students to make sure materials are put away neatly and they are ready to move on to the next activity.

2. **Demonstrating enthusiasm, intensity and humor** create a welcoming environment and positively impacts children's engagement. Sometimes sharing a personal story will increase children's interest and serve as a vehicle for remembering the information being presented. Using games or having activities requiring physical movement generates interest in the classroom. Changing your voice to be a different person or dramatizing an event encourages children's curiosity.

Educators' Voices: It is most important for a kindergarten teacher to show enthusiasm! Any lesson can be exciting in the way it is delivered to the students. I actively engage students in their learning through song, dance, stories, SMART Board, etc. It is fun to stomp out words to learn how to spell them. It is beneficial to sing songs about nouns, verbs, numbers,and color, etc. to learn about them. Many times I share stories about my own children and will even say to the students that they are doing such a good job on something that I will show it to my husband that night or to my own children. They love for me to do that!

Educators' Voices: Inspired by the book *The Very Hungry Caterpillar* by Eric Carle, I engaged a group of prekindergarten

children in a creative exercise that focused on expressive language, vocabulary, and imagination. With a puppet alligator, I told the story about a lonely alligator who lived in the moat of a castle far, far away. The little boy who lived at the castle used to toss his dinner scraps to the alligator each night but one day the boy went away with his family and never came back. The alligator got so, so hungry. He eventually set out to find something to eat. Then I invited the children to help me think about what he found to eat on each day of the week, both reinforcing the sequence of days and encouraging the children to use their imagination to think about food for the alligator. The children eagerly raised their hands and wiggled with joy to be able to hold the alligator and share their ideas. They were encouraged to take ownership of the direction of the story and by the end all of them were fully engaged. We carried their excitement into an art project where they illustrated their favorite part of the story. The next day, sure enough, I overheard a group of children in the dramatic play area repeating parts of the story as they passed the alligator from child to child. This was their story; they owned it.

3. Effective early childhood educator-child and peer relationships are essential in creating a positive and nurturing learning environment. It requires time for the educator to know the background and interests of each child. Information gleaned from speaking informally to children can be included when appropriate in the daily lessons. For example, the early childhood educator may mention a child's experience going to the beach while reading aloud a story of a family taking a vacation to the beach. It is important to be diligent in ensuring that all children are treated in a fair manner and that everyone is given the opportunity to participate. Children need to know that the adult is approachable and cares about them as individuals. Similarly, respectful peer-to-peer relationships should be cultivated and modeled by the early learning educator.

Educators' Voices: We have systems in place to teach children kindness in my preschool class. During circle time our "kind comment of the day" activity helps children understand the value of noticing and verbalizing something nice about someone. We make this a classroom job, thereby ensuring that all students have an opportunity to give feedback by complimenting someone.

Educators' Voices: At our elementary school, we believe that every staff member plays a crucial role in building relationships with every child. As the special educator who is on hallway duty during arrival time, I make it a point to compliment individual students on everything from a new outfit to greeting them with a smile or a "good morning." Other staff members welcome students as they enter the building. The simple act of taking a minute to make that connection starts everyone's day off on a positive note.

Increasing Children Participation

A skilled early childhood educator allots time for children to digest and react when information is presented in a small or large group setting. Choral response and response chaining, two strategies cited by Marzano, are effective in large groups. Other strategies may use materials or technology to increase opportunities for children to be engaged. The following is a sampling of strategies and vignettes that educators employ to promote participation and discussion among children.

- A choral response allows all children to verbalize their answers simultaneously. Some early childhood educators will have their children whisper their response. In addition to increasing participation, choral response gives the adult the opportunity to observe which children are participating and who may need assistance. It also allows all children to hear the correct answer.

Educators' Voices: In pre-K, we teach approximately twenty sight words during the course of the year. One way that we practice reading these words is through choral reading. I will put the words up, one at a time, on the document camera. I will ask the class to read them together in a variety of ways, such as whispering, singing it like an opera singer, like a monster would talk, in a teeny voice, and so on. Doing choral reading/response this way makes it high interest for the students and also allows students who feel less confident in their knowledge of sight words to respond without fear of being incorrect. It also allows those students who do not know the words to hear them being read by their peers.

Educators' Voices: One of the favorite activities for the three and four year old children that I have for speech and language services is having them be a part of a story that is read aloud. This is readily accomplished by have children complete a repeated phrase from a story. For example, if the teacher is reading *The Three Little Pigs*, the children can "become" the big bad wolf and respond by saying "he huffed and he puffed and he blew the house down." I also use the Jane Chapman "Bear" series and start out with the "bear wants more." This response uses choral responses to engage children in storytelling and comprehension.

- Response chaining is a strategy that asks a second child to respond to the first child's answer. Depending on the type of question, the second child may agree or disagree with the response or add information that also answers the question after paraphrasing the initial response. For example, a second child's response might be, "Lisa says that apples are red. I think they can also be green." A third child may then add to say that apples can be red or green and are sometimes yellow.

Educators' Voices: To increase student talk when I am in a small group, I use a stick with a "hand" attached to the end. We "hand-off" the stick to each person to keep the conversation going. The student who gets the hand has a choice to add something to the discussion or just pass it to the next person. For example, we read two versions of *The Three Little Pigs* and we used the hand stick to compare the pig and the wolf in both stories. Another strategy I used in a large group or whole class, is to call on several students without commenting on each response. This encourages them to listen and build upon each other's ideas.

- Small whiteboards and cards add opportunities for children to engage in learning and to receive feedback. The early childhood educator may ask children to write a word on the whiteboard that describes the pumpkin they picked at the pumpkin farm. The children might first share their response with a classmate before holding their boards for the adult to see. Individual response cards, such as ones containing the words "yes/no" or numbers "1, 2, 3, 4", provide another avenue for children to respond to a question.

Educators' Voices: I use whiteboards quite a bit in kindergarten. It allows the student to feel less pressure about making a mistake. They can practice writing letters/words on a white board and easily erase it if they form the letter or word incorrectly. I can have them hold their boards at the count of three for me to see the entire class. I have also found they are great for the children to write notes to each other. One child will write a message to their friend and have the friend respond by writing on a whiteboard.

- Response technologies, such as hand-held devices, allow every child to select a response to a question given by the educator. Often the choices are A, B, C or D, or true/false. Other devices allow children to pick one of four colors – red, green, yellow or blue. Responses can be displayed in an aggregated format on a screen or board in the classroom using technology. This is a great way for an early childhood educator to investigate information accuracy with young

children without targeting a specific child. Often errors follow trends, or common mistakes, and response devices allow educators to address common mistakes in a group setting.

Educators' Voices: To assess students' understanding at the end of a math lesson, I have incorporated the use of Senteos (a hand-held answering device) with my first grade students as a formative assessment. The student responses on the Senteos allow me to analyze the level of mastery for a particular skill taught in my lesson. When I was teaching a lesson on identifying attributes of two-dimensional shapes, the data from the Senteos showed me that 75 percent of my class had mastered that skill. By using the data provided by the Senteos, I was able to target small groups and determine who needed re-teaching and who needed enrichment.

- "Turn and talk," a paired response, allows children to converse in pairs after the educator has posed a question. Every child has the opportunity to talk to another person. Sometimes a "talking stick" or small cards are used to facilitate children taking turns talking while in a small group. For example, the child with the card having a face of a person or a person's mouth would be the speaker, while the second child, or listener, would have a card depicting a person's ear. Children could take turns and switch cards after each task.

Educators' Voices: "Show Me, Tell Me" is a favorite game in our co-taught kindergarten classroom and a great way to get all children engaged and participating in the whole group activity. The teacher holds up a card with dots on it (sometimes in a pattern, other times not). Students silently count the dots, and then hold up their fingers to show the total number of dots on the card ("Show Me"). I have the children "turn and talk" to a partner to allow them an opportunity to explain their thinking to a peer. I then ask students to chorally respond by shouting out the number of dots ("Tell Me"). Sometimes I will have individual students explain their thinking (e.g. "I counted two dots then two dots then two dots and got six versus I counted by ones to get to six").

Questioning and Discussion

Questions are usually categorized as being low-level or high-level. Low-level questions require children to recall facts or repeat steps to a procedure. High-level questions help children develop understanding of a concept or topic – asking them to explain, infer, compare, analyze and evaluate the information that has been presented. Most questions that educators ask children are low-level and do little to advance higher order thinking. The hierarchy of questions found in Bloom's *Taxonomy of Educational* Objectives (1956) and later revised (Anderson & Krathwohl, 2001), has been used for many years as a resource for distinguishing different levels of questions. Other taxonomies are also being used to describe the levels or types of questions and various thinking processes.

Low-level questions are effective when the purpose is to gain general information about the topic being discussed such as activating prior knowledge, before reading a story or orienting the children to a topic, much like priming the engine before you start the motor. Low-level questions are also effective when the purpose is to assess children's literal understanding of a concept and the ability to locate information from a text or other source. The low-level questions can serve as building blocks for developing and deepening children's understanding. It is aligned with the Common Core Reading Anchor Standard 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing

or speaking to support conclusions drawn the text (2010).

John Hattie (2009) argues the importance of having a balance between low-level and high-level questions. Surface information gathered from low-level questions is used to develop understanding within the content or skill. For example, the reader or listener can use facts from a story of a person helping others to make the inference that the person is generous. Another example may ask the reader to describe the settings of two stories by looking at the pictures from both books before having the child compare the settings.

Quality of Questions

The skilled early childhood educator is adept in providing a balance of low-level and high-level questions to improve children's understanding or comprehension. Making connections to what the child knows is effective with his or her understanding. A visual representation or graphic organizer can be helpful for children to visualize the factual information that may lead to a deeper understanding. For example, after recording children's responses to an apple sauce activity using an organizer on chart paper, the children might conclude that making apple sauce takes a lot of time or that it is a lot of fun.

Questions with multiple answers increase the participation of children. For example, asking what coins are needed to make ten cents allows children to have a multitude of responses, whereas asking what two coins make ten cents would elicit only one correct response.

Marian Small (2010) suggests four strategies for improving the quality of math questions:

- **Start with the answer.** For example, the children may be told there are seven counters in two bowls and asked to show how many counters could be in each bowl.
- **Identify similarities and differences.** For example, how is a rectangle and triangle alike and different? Or compare a ruler to a measuring tape.
- **Allow choice in the data provided.** For example, when given the first two shapes or objects in a pattern such as a square or a circle, the child is asked to finish creating their own pattern using a variety of shapes. The activity is open-ended and has multiple responses. The child would explain the pattern created.
- **Ask the learner to create a sentence, oral or written, using math vocabulary.** For example, the child may be asked to give a sentence using two numbers and the words "more than." The child may respond that seven is more than five.

All four strategies encourage multiple responses to questions and provide choices for children as to how they solve the problem.

Educators' Voices: In a math lesson I provided each child in my kindergarten class with a "fish pond" work mat and a small bowl of rainbow colored goldfish crackers. The lesson began by the children sorting their rainbow fish crackers by color. The children were instructed to review their sorting and choose/keep the two colors/groups with the most crackers and remove all other fish crackers from their work area. When the children had just two colors on their work area, I gave the answer "five fish were in the pond" and asked the children to show five fish in the pond using their two colors of crackers. This type of activity allows for varied responses such as two yellow + three green, four red + one yellow, etc. After the children showed how they made five fish in their pond, they orally explained their combination of five crackers. The children recorded their work in their math journal by drawing and/or writing how they made "five fish in their pond." Then, the children were asked to make "five fish in the pond" in a different way.

Educators' Voices: During a recent geometry lesson in our co-taught kindergarten class, students were asked how a square and a rectangle are the same and different. We first showed students pictures of both squares and rectangles to assess whether students could identify each shape correctly. Then students practiced tracing both shapes in the air while singing a song about squares and rectangles. Finally, students were asked to draw each shape on a small white board. The group discussion that followed elicited responses from students about how squares and rectangles are similar (e.g. both have four sides, box shapes) and how they are different (e.g. longer/shorter sides, taller vs. shorter). A follow-up activity had children apply their knowledge by going on a "shape hunt" to find real world objects in our classroom that were squares and rectangles (e.g. books, tables, charts etc).

Standards of Mathematical Practices

Improving the quality of questions by having children explain their thinking with written explanations and in a non-linguistic manner in the area of math is supported in the Maryland College and Career-Ready Standards Framework (2011)[17] with the Standards of Mathematical Practices that are found in every grade level. The practices, listed previously in Chapter 6, are to be infused with every content standard with the intention of deepening student understanding of the concepts and skills. The book *Common Core Mathematics in a PLC at Work: Grades K-2 (2012)* emphasizes using problem solving as the approach to mathematics and to shift learning towards higher levels of cognitive demand. Students will still need to be fluent in their computation, but instruction will focus equally on the practices as on the content.

The eight practices encourage children to be problem solvers, to explain their reasoning, to use tools and concrete items appropriately, and to persevere when solving problems. Questions related to the practices tend to be high-level:

- How would you describe the problem in your own words?
- Do you agree with your classmate's answer? Explain.
- Can you make a model to show the steps you took to solve the problem?

A sample concept from a grade level of the framework can be used to illustrate how to embed one or more of the practices in the content standard. A math standard at the kindergarten level asks children to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. The math practice of constructing viable arguments and critiquing the reasoning of others can be embedded in the task.

- The early childhood educator could arrange the environment so that small groups of children work together with each child selecting a plastic bag of items such as counters or pennies. Each child would have to justify why her group of objects is less than, equal to, or greater than another person's. The children would take turns listening, comparing their reasoning to others, and justifying their response.
- The same mathematical practice could be used in second grade with a different content standard – recognize shapes having specific attributes. Children could be asked to sort different shapes by common attributes. They would then take turns defending their decision for grouping the items.
- At a much younger age, children could be given a group of two to four common objects and asked to sort them by how they are alike. For example, they would explain why they put a kickball and an orange together, but not a crayon when asked to sort the three objects.

17 Formerly Maryland Common Core Standards Framework

Educators' Voices: It is important that my first grade students are able to explain their thinking in math. I have created Senteo lessons that use four answer choices, true or false type questions, and questions where they have to figure out the math and write in the correct answer. After the students' answer choices are locked in, I would then have them explain why they might chose that answer as a way to get them to discuss their reasoning behind the answer. This discussion stemmed to higher level questions. I also would show the students the percentage of people, based on the Senteo responses, who chose each number. This allowed them to go through each answer choice and explain why the other answer choices were wrong. When we were finished the lesson, I would use the data to create my small groups and for re-teaching.

Open-ended Questions

Open-ended questions may not have a correct answer. Instead, children may have to justify their response or explain their reasoning. For example, if the early childhood educator asks children to name a type of equipment to use during recess and why they should have it, the child only needs to justify why the equipment is needed. One child may respond that jump ropes are needed because it helps people learn to jump. Another person may say a ball because it can be shared with other children.

Educators' Voices: To facilitate vocabulary and oral language development in my pre-K class, we utilize the "I See, I Think, I Wonder" strategy of Arts Integration. During this activity students look at a piece of artwork that I display. I ask them to think about the artwork - what do they see and what do they wonder about the piece? Students are encouraged to explain their thinking using evidence from the artwork to justify their answer. For example, we looked at the piece "On the Terrace" by Boris Kustodiev. Students were asked what they see and they described the things they saw in the painting, such as people eating, a dog, and so on. They then were asked to describe what they think is happening in the painting and had to utilize deeper thinking skills for their answers. They said things like they think the group of people are a family because there are what looks like a mom, a dad, and kids, or that they think it must be summer because they are eating outside. Finally, students were asked what they wonder, or want to know, about the piece. They answered things such as "I wonder if they are going to go play after they eat." These open-ended questions and thinking strategies encourage deep thinking as well as an opportunity to express ideas in a safe environment where no answer is "wrong."

Educators' Voices: Open-ended questions are a part our emotional literacy program with the preschool children I serve. We help students express their feelings by asking two questions. First; how are you feeling today? And secondly, what made you feel that way? We pair this with pictures of children with distinct facial express to help children label their feelings and develop language skills that enable children to express emotions effectively.

Encourage Discussion with Dialogic Teaching

Researchers have written on the benefit of making classroom interactions more dialogic and less monologic (Reznitskaya, 2012). A monologic classroom is an environment that has the educator doing most of the communication and children play a limited or passive role in discussions, often just responding to the question asked by the adult. A dialogic classroom, on the other hand, has more collaboration in communication between the educator and children. In reality, classrooms are both monologic and dialogic in nature, with both approaches having their purpose.

A Data Inquiry Tool (DIT) was created as a professional development tool for educators to improve the quality of talk during literature discussions (Reznitskaya et al., 2011). For example, asking open-ended questions, encouraging children to explain what they have done and allowing them to ask and answer questions to each other. Early childhood educators can choose strategies

and approaches that would be appropriate for the children they have, being aware of how they can help children play a more active role during discussions. The DIT has six indicators with each one having a rating continuum, ranging from a monologic description to a dialogic description. The indicators are as follows:

Authority ranges from the educator having exclusive control to children sharing major responsibilities during discussions (e.g., asking questions, reacting to others).

Questions range from low-level and factual to promoting higher-level thinking and being open-ended.

Feedback ranges from simple or ambiguous to praising the effort with specific language and encourages further reflection by the child.

Meta-level reflection: connecting student ideas ranges from not relating children's responses to each other to connecting children's ideas to each other and encouraging them to relate their ideas to what other children said.

Explanation ranges from children not explaining their thinking to supporting their responses with evidence and examples, often with elaboration.

Collaboration ranges from children responses being low-level and not related to others to working together and reacting to the ideas of others.

Feedback

Feedback has a huge influence on a child's achievement and self-perception. The ability to carefully observe and monitor children is critical in providing effective feedback. People mistakenly believe that praise is the same thing as feedback. Writing "Very good!" on a child's paper or telling a child "You are wonderful!" certainly makes the person feel good, but is not specific in telling what the child did or learned. A definition and description is helpful in distinguishing the difference between feedback and praise.

Hattie (2009) defines feedback "as information provided by an agent (e.g., teacher, peer, book, parent, or one's own experience) about aspects of one's performance or understanding." Feedback is most effective when the child has a clear understanding of the task or behavior that is required. It can be oral or written, spontaneous or prepared in advance. Feedback is often linked to praise to make it specific to the child. For example, saying "Great work! You organized the housekeeping area by putting the dishes and food items in the cupboards and baskets," specifies what the child has done. The amount of feedback is not as important as the quality of it.

Our Role as a Facilitator

The early childhood educator's role as a facilitator is critical for increasing children's independence and involvement. The educator becomes more of an observer with the purpose of asking follow-up questions to probe children's responses or have them elaborate on their answers. Providing "wait time," a strategy commonly used by pausing for several seconds after asking a question, is beneficial for all children, but even more so for English language learners. The "wait time" allows ELLs time to do two mental tasks – first, to think about what they are going to say and second, how they are going to say it in English (Hill & Flynn, 2006).

Characteristics of Feedback: Timely, Constructive and Specific

- **Timely** – most researchers agree that the sooner feedback is given to a person, the more valuable it is. Skilled early childhood educators are able to give timely and frequent feedback to children as they observe them in the learning environment. Written feedback can be included on the back of a center activity (e.g., laminated folder or card) for quick checking by the learner.

- **Constructive** – feedback that is constructive or corrective is seen as being fair by the learner. The early childhood educator identifies what is accurate and not accurate with the desired outcome. The feedback should be objective and based on the child's work or the targeted behavior, not on other characteristics of the child. The adult is selective in identifying only a small number of corrections that need to be made.

- **Specific** – children need to understand and work toward meeting expectations. The learners and the early childhood educator should be clear on what is required of a task or behavior. Expectations can and should be articulated by identifying varied levels of achievement or mastery of a subject or skill. If a child does not understand the concept or skill being taught, then the feedback is ineffective. Older children may have a rubric that clearly delineates the criteria. Early childhood educators will often use posters or signs that illustrate the expected behavior.


Educators' Voices: I use observation as a core part of my daily activity with the kindergarteners in my class. Observation gives me an opportunity to understand how the children approach learning, what skills they have mastered, and what skills they are working to develop. One day I noticed that Teddy was having difficulty becoming engaged in the daily work of the class. I paused and observed him to gain a new understanding of what might be causing the difficulty. Based on the observation, I was able to come up with some ideas for supporting his engagement that would guide – not direct – him toward activities. One idea was to gently speak to him at transition times and explain one or two options that he could consider to choose from during our next period. Another idea was to be physically present with him during transitions so that he had support if needed to help him engage in his work. I observed that he was overwhelmed by the choices and did not know how to select his work and focus, so these strategies were a way for me to help him narrow and center himself on an area of work that would be pleasing for him.

Feedback and the Role of the Child

The child plays an important role with feedback. Susan M. Brookhart (2008) explains that feedback can be very powerful if it addresses the child's cognitive and motivational factors:

> "Good feedback gives students information they need so they can understand where they are in their learning and what to do next – the cognitive factor. Once they feel they understand what to do and why, most students develop a feeling that they have control over their own learning – the motivational factor" (p. 2).

The child's perception plays a critical part in the effectiveness of the feedback. In fact, some researchers state that the feedback must be acted upon by the receiver in a positive manner for it to be effective. The early childhood educator's role is to continually foster a classroom culture that encourages constructive criticism as a healthy way for children to learn. Children have to believe they are capable of completing the task if they put forth the effort.

Danielson emphasizes the importance of educators being equitable when providing feedback. All learners should receive feedback. Similarly, asking children to give feedback on their own work, as well as peer reviews, is a powerful strategy for helping them to reflect and assess their work and behavior. This practice supports the continued

development of executive functioning skills in the social foundations domain. Children demonstrate full engagement and self-regulation while critiquing their task. Critiquing includes assessing both positive remarks and areas for improvement. Danielson links children's level of confidence to the degree they use feedback.

Early childhood educators know the importance of teaching self-reflection so that children begin to set their own goals, monitor their progress, and report on their accomplishments. This helps children take ownership for their own learning.

Educators' Voices: We use the *Tools of the Mind* curriculum in our kindergarten program and find that the children become skilled at regulating their social and emotional behavior, making decisions about their learning, and reflecting on it as well. Every day before the children play they create a written plan for where they will play and what they will do. At the beginning of the year, the written plan usually is a drawing or symbol and a word or two in prekindergarten spelling. One child might draw a block tower and write the word "block"; another child might draw a hat to represent dramatic play. As the children mature, we help them with their writing to form complete sentences, to explain their ideas, and to create play scenarios that involve peers. The play plans are sent home each week so that the family can see what the child is doing and engage the child in conversation about their specific work (e.g., "Johnny, tell me about the tower that you built in the block area yesterday."). Sharing with their families in this way gives them opportunities to reflect on their accomplishments and practice communication skills. Over time, parents and the children themselves can see the changes in skill and interest as depicted in the play plan and through the conversation with their children.

Educators' Voices: Even our younger learners can begin to self-monitor their own work. In our kindergarten writing folder I include a two column picture checklist. This list includes pictures representing "capitalization, finger spacing, punctuation, and picture/text agreement (does their picture match what they wrote about)." First, the child reviews their writing piece to "self-grade" their own work by giving themselves checkmarks in the "student" column. The checkmarks represent that they successfully incorporated the skills into their writing. Then, I give my feedback in the "teacher" column. If we disagree on an area of their writing, the child is

TIPS FOR EARLY CHILDHOOD EDUCATORS

TO SUPPORT CHILDREN'S SELF-REFLECTION

Skilled early childhood educators can support children in reflecting on their work by:

- Providing graphs where the children can check off that they have completed a task.
- Encouraging children to select and label what they decide is their best effort.
- Providing rubrics so that children know the expectations/criteria.
- Conducting student/educator conferences so that the children can talk about what they did, what they were proud of, and what they think they need help with.

asked to reflect on their writing piece to prove that they successfully incorporated that skill into their writing.

Differentiation

Early childhood educators are adept in knowing the children in their class by gathering information through observations and interactions with the children and their parents. They are able to identify the interests, talents and needs of every individual. This information serves as a basis for providing effective differentiation.

Carol Ann Tomlinson and Marcia B. Imbeau (2010) in their book, *Leading and Managing a Differentiated Classroom*, state that differentiation is a philosophy or approach to learning that balances the needs of individual children with the curriculum content. Simply put, what does the child need and what does the educator need to do to help the person meet success? The authors have identified four interdependent elements in the differentiated classroom setting: curriculum, instruction, assessment, and the learning environment.

Elements of Differentiation

1. **Curriculum** includes the essential concepts and skills to be taught, the sequencing of lessons to engage children, and how proficiency will be determined. Are the lessons rigorous, relevant and have real-world applications? Is there a smooth progression of lessons with opportunities for children to demonstrate progress? Although the standards tell us what the children should know and be able to do, the curriculum tells us the content of what to teach.

Educators' Voices: To meet the new Maryland State Curriculum requirement related to history for second grade children, we spent several weeks talking about how individuals and society change over time. We did research as a class to compare our community today with what it was more than 100 years ago. As an end of unit project, the children were able to select their own activity to represent an aspect of what we learned that was most important to them. Some children choose to write a story in the voice of a historic Annapolitan telling of their life; other children choose to develop a three-dimensional representation of the Chesapeake Bay and how the watershed has changed over time; still other children choose to create a PowerPoint presentation comparing and contrasting the life and times from 100 years ago and today. The children were able to choose how they would represent their learning and in doing so, they fully owned their research and final presentation.

2. **Instruction** is how the curriculum will be delivered by the early childhood educator. What strategies are used to make the learning relevant to the learners and takes into account their readiness and interest? Leveled materials and tiered assignments can be used with the purpose of connecting it to a real-life event or to an interest expressed by the children. Activities are presented using various modalities (e.g., auditory, visual, tactile and kinesthetic). Do children have the opportunity to work individually, in small groups and large groups? Early childhood educators purposefully group children in many different ways to learn the value of collaboration and teamwork.

Educators' Voices: I have a special education prekindergarten classroom with students who range in age from three to five-years-old and are in all different developmental stages of growth. In my classroom, I have to differentiate everything we do to meet the needs of my younger students and my older students at the same time. During morning work, some students are working on basic fine motor skills (tweezers, stringing beads, etc), some students are matching the letters of their name to a printed model, some students are working on pre-writing strokes, some students are tracing their name, and some students are writing their first name without a model. We work in small

groups to meet the needs of all learners. During social interaction time, I bring my older students into the general education prekindergarten classroom to get them some inclusion time with their same age peers. Differentiating instruction and experiences makes a world of difference in the success of our students.

Educators' Voices: We were in the middle of the second grade spring semester and it was time to begin thinking about a culminating class project or performance. I defined the groups and took into account the natural interests and abilities of the children to ensure a mix for each group. Together the children worked in a group and brainstormed their project and assigned each other tasks for carrying it out. One group decided to put on a mini-play. Children came up with the storyline, but two took responsibility for drafting the script; two other children composed a piece for the recorder to accompany the play and choreographed a dance for them to perform. Two other children designed the backdrop and props, but all children joined in the final construction. It was a real collaborative effort, allowing the children to excel in the areas where they felt most interested and skilled, but also stepping outside the box and participating in all areas to make the production a success.

3. **Assessment** can be diagnostic, formative or summative (see Chapter 8). Diagnostic or pre-assessment is used to identify what the child knows prior to teaching the content. This information can be valuable in determining possible grouping of children and if the content needs to be modified. Formative assessment is ongoing – the early childhood educator observes and seeks feedback during a lesson or after one or more lessons. The essential component of formative assessment is for the early childhood educator to continuously modify the instruction or assignment as a result of observation or feedback. Formative assessment also informs the early childhood educator if the children learned the intended content of the lesson or unit. It drives instructional decisions such as when to re-teach and change student groupings.

   For example, the early childhood educator may decide to review using picture clues in a story after noticing that children were not using the pictures to answer questions from a big book during a read-aloud. Also, DIBELS results are used to identify children needing help with letter recognition or phoneme segmentation. The early childhood educator can monitor the children's interest and engagement to make changes using formative assessment.

Educators' Voices: In our kindergarten class, we initially assessed student's ability to write a story using both pictures and words. As this was completed in September, the students produced everything from a single picture without words to multiple pictures with words underneath them spelled out phonetically. After spending several weeks teaching the basic components of a story (including a beginning, middle and end) and working in small groups, students were then reassessed using a summative assessment which required them to draw three pictures and write a simple sentence under each to tell a story with a beginning, middle and end. We set differentiated product expectations that allowed us to measure varying degrees of growth for each student. We were so proud to share both products at parent conferences to show how we were able to determine our student's writing needs using a formative assessment and show their growth following instruction using a summative assessment.

4. **The learning environment** is an important element of differentiation (see Chapter 5). It includes the physical environment – the appearance and structure of the room – as well the emotional environment. An attractive classroom with displays of every child's work and age-appropriate learning centers that encourage self-expression and choice options sends a message that the children are important. The room is arranged with choices of individual, small group and large group learning

opportunities. Children are valued as individuals but also understand they belong to a community of peers. Diversity is seen as a strength and an opportunity to learn. A child's feelings of being safe, respected and a valued member of a group is critical for personal and academic success. Learning environments in early childhood classrooms also need to be refreshed. As children age and grow and increase in their skills, aspects of the learning environment need to adjust to accommodate their new abilities while simultaneously inspiring new challenges.

Educators' Voices: In our preschool classroom center-based learning is multi-faceted. We use free choice once a week to allow children to move to different centers and promote their independence. Concurrently, we pull children to teacher directed groups that provide opportunities to work individually or in small groups. If the activity requires cutting, we can employ hand-over-hand support or permit the child to cut independently since our physical space and grouping methodology allow opportunity for differentiated instruction.

Educators' Voices: We were studying people native to Maryland – the Powhatan, Shawnee, and Susquehannock tribes, and others. I worked to ensure children had multiple choices in each center so that they could explore this history. From books in the library, a cradleboard, moccasins and breechcloths in the dramatic play area, and supplies to make a wigwam in the construction area, the children were able to choose the activities that they wanted to participate in to learn about the life and culture of the different tribes that lived long ago in Maryland.

An early childhood educator's effectiveness in providing differentiation through the curriculum, instruction, assessment and the learning environment has a huge impact on the way children view themselves. Does each child see herself as a unique individual but also a contributing member in a community? Are they confident and believe that effort, not ability, is the key to learning?

According to Maslow's hierarchy of needs, only after an individual's physiological, sense of security, and feeling of belonging have been addressed, can a person be ready to learn (1943). The educator's belief in differentiation charts the course for every child's success.

Differentiation and Opportunities for Cultural Appreciation

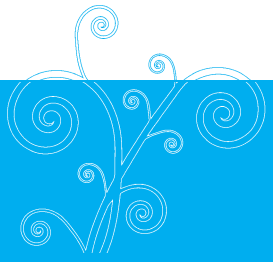
Learning centers provide educators opportunities to differentiate the curriculum and materials, but also offers wonderful ways to create an environment that values diversity and cultural appreciation. An excerpt from the *California Preschool Curriculum Framework: Volume 3* (2013) illustrates how cultural diversity can be part of the learning center in a preschool.

> The early childhood educators decided to purchase a persona doll – a handmade doll with features designed to give the child a particular racial or ethnic background. The doll was dark-skinned with brown eyes and curled black hair. A letter was sent to parents explaining the doll and asking volunteers to do some sewing and to weave hair extensions into the doll's hair. The doll was given the name Ashia. The teacher introduced Ashia to the class as a "new student"during a large-group morning circle. Photos and props from Ashia's home in Africa were shared as part of an elaborate story that was shared with the children. The early childhood educators explained that Ashia was nervous and was looking to make new friends. The children shared how they could be Ashia's friend. Later the doll and the props were added to the dramatic play center.

This is an excellent example of children being taught about the differences and similarities of cultures. The early childhood educators reached out to parents by sending a letter home to explain the project and to enlist the talents of individuals to assist with sewing the doll.

Another by-product of this event was the masterful

way that the early childhood educators provided a purposeful activity to the dramatic play center. They shared the background of the doll, provided thoughtful and appropriate language for the children to learn and understand (e.g., discuss feelings the doll might have with moving to a new place), and included different props before adding the doll to the play center. It is likely the level of play with Ashia during center time will be complex and advanced, a strategy advocated by Bodrova and Leong (2003) and Vygotsky (1978), with the purpose of developing mature intentional play. It is likely that the children will replicate the language modeled by the early childhood educators to promote respect and empathy, critical components of the social foundations domain in Maryland's Early Learning Standards. Empathy is a quality that is important in helping children to develop their relationship skills (Masterson & Kersey, 2013).



TIPS FOR EARLY CHILDHOOD EDUCATORS

SUGGESTIONS FOR IMPROVING PEDAGOGY

Skilled early childhood educators can support children in reflecting on their work by:

- Take time to observe each child. Through observation, learn about the child as an individual and as part of a family system.
- Uncover the strengths and challenges of each child. Identify ways to build on the strengths to support learning, and to address weaknesses to minimize achievement gaps.
- Provide accommodations based on data from standardized assessments and observations. Modify instruction to meet findings.
- Find multiple ways to welcome children into the program. Match the approach to their personality, needs, and interests.
- Focus first on helping children build a strong emotional foundation.
- Help children identify how they feel, name their emotions, and learn how to take charge of them. Give children the language they need to express themselves.
- Create multiple opportunities for learning to take place. Use all of the senses, not just looking and listening.
- Create many opportunities for purposeful movement as it is linked to cognitive development. Minimize seat work and circle time to small periods for children under age six.

- Maintain an orderly, clutter-free learning environment in which the children can navigate independently and participate in its care. This supports the development of self-regulation and executive function.
- Use social referencing to support independence and self-correction.
- Build adequate time into your weekly schedule for reflection and curriculum development, and to try new approaches to see if they work better.
- Take time to understand and research the diverse cultures of the children and their families. Many cultures have very different customs and their educational experiences and expectations could be different from the American education system.

TAKE TIME FOR SELF-REFLECTION...

What strategies do you use to try to understand each child in your program?

Think about a child you have found difficult to engage. What makes it difficult? What have you tried? Of the things you've tried, what have been the most successful? How might the successful approaches be extended or replicated in other contexts so that the child develops the skills needed to engage more regularly?

How do you go about differentiating learning – content and approach – so that it best fits every child? What skills or tools do you use to do this?

How do you assess your interactions with the children and know when to try a different approach? Are there tools or strategies that you use to engage in continuous improvement? Who are you able to talk with about this?

INSTITUTE OF EDUCATION SCIENCES: KEY FINDINGS ON EFFECTIVE INSTRUCTIONAL PRACTICES AND CURRICULA

The Institute of Education Sciences (IES) synthesized findings funded by IES on early intervention and childhood education and published in peer-reviewed publications through June 2010 (Diamond et al, 2013).

The research identified the following features of early childhood classrooms that are reliably associated with children's achievement:

1. **The quality of teacher-child interactions** and the emotional support provided by the teacher is positively associated with children's social competence.
2. **Parent engagement in schools** and parent perceptions of the responsiveness of their child's teacher is positively related to children's academic and social competence.
3. **High levels of emotional and instructional support** in the classroom result in greater growth over an academic year on academic and social development.
4. **Composition of classrooms** where children can learn from peers with advanced skills may positively influence children's learning.

The report indicated that additional attention needs to be given to:

1. Attending to the social-emotional competence of young children.
2. Creating opportunities for children to learn abstract reasoning skills.
3. Creating teacher-directed learning opportunities where teachers plan activities that are taught to groups of children.
4. Building a language-rich classroom environment where teachers pose challenging questions.
5. Incorporating explicit instruction to support pre-reading and comprehension skills as educators engage children in read-alouds.
6. Offering opportunities for supplemental literacy instruction for children who are at risk for reading difficulty where the intervention focuses on code-based instruction and where there is a clear and systematic scope and sequence of learning activities.
7. Enhancing instruction that is math- and science-oriented.
8. Supporting school-based and home-based mathematics curriculum where home activities link directly to small group mathematics activities in the classroom and where computer software is used to reinforce learning.
9. Providing targeted interventions to improve children's number sense including constructivist interventions and Response to Intervention (RtI) approaches to support a cumulative growth model of learning.
10. Creating opportunities where science and literacy instruction are integrated.

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WEB LINKS

CAST Universal Design for Learning
www.cast.org

Center on the Developing Child, Harvard University
http://developingchild.harvard.edu

Center on the Social and Emotional Foundations for Early Learning (CSEFEL)
www.csefel.vanderbilt.edu

Colorin Colorado -- Prekindergarten for English language learners
http://www.colorincolorado.org/webcasts/prekindergarten/
Colorin Colorado – 8 Strategies for Prekindergarten English language learners' Language and Literacy Development
http://www.colorincolorado.org/article/36679/

Danielson Framework for Teaching
http://www.danielsongroup.org/

Division for Early Childhood, Council for Exceptional Children
www.dec-sped.org

Early Childhood Gateway
http://www.mdecgateway.org/

Maryland Common Core Curriculum Frameworks
http://mdk12.org/instruction/commoncore/index.html

Maryland STEM Education
http://www.mdk12.org/instruction/curriculum/STEM/index.html

National Association for the Education of Young Children
www.naeyc.org

National Board of Professional Teaching Standards, Early Childhood Generalist Standards, Third Edition
http://www.nbpts.org/sites/default/files/documents/certificates/nbpts-certificate-ec-gen-standards.pdf

Positive Behavioral Interventions and Supports
www.pbis.org

Sign Language Resources
www.handspeak.com

Tools of the Mind
http://www.toolsofthemind.org/

ZERO TO THREE
www.zerotothree.org

CHAPTER 8:
ASSESSING CHILDREN'S DEVELOPMENT AND LEARNING

This chapter explains why assessment is important, the different types of assessments in early childhood programs, how to use assessment to set goals and measure growth, and ways to engage families as partners in assessment.

◆ Helpful terms ◆ Why assess? ◆ Response to Intervention ◆ Types of assessment ◆ Maryland's Early Childhood Comprehensive Assessment System ◆ Who should assess? ◆ Using assessment data ◆ Families ◆ Portfolios ◆ Resources and web links ◆

HELPFUL TERMS

Assessment	A term used to refer to any type of appraisal of young children. It may be specific to one area of development or the whole child. Assessment uses both formal and informal tools for gathering information on an ongoing basis.
Developmental Screening Tool	A developmental screening tool is used as a first step to evaluate the growth progression of children in a broad way. Based on the results of a developmental screening, children may be referred for interventions services, provided specific opportunities to develop targeted skills or have no action.
Direct Assessment	Direct assessments require the child to respond to various tasks that are posed by an examiner. These tests are standardized, meaning the tasks, administration directions, and scoring are the same for each child. Because of this standardization, direct assessments are more reliable and can be predictive of school achievement.
Domains of Development	Domains of development include social foundations, physical development and health, English/language arts, math, science, social studies, and the arts. Early learning programs intentionally work with children to support acquisition of new skills in each of these domains of development.
Early Childhood Comprehensive Assessment System (EC-CAS)	Maryland's Early Childhood Comprehensive Assessment System features a set of linked systems, and professional development supports, to measure, monitor, and improve the school readiness of all children. It will include developmental screeners, formative assessments (36-72 months), and the Kindergarten Readiness Assessment (KRA).
English Speakers of other Languages (ESOL)	ESOL is the Maryland certification for teachers who specialize in teaching English language learners. ESOL is also the program name for children receiving support as English Language Learners.

Formative Assessment	These assessments are used to monitor children's progress along a continuum of development toward objectives. Formative assessments help early childhood educators monitor individual children's progress, individualize learning opportunities and plan for curricular and instructional decisions. The formative assessment of the EC-CAS is called the Early Learning Assessment (ELA).
Individualized Education Plan (IEP)	An IEP is for children ages three to twenty-one with disabilities. The plan, developed by a team and reviewed at least annually, documents the child's present level of academic achievement and functional performance, including on how the disability affects the child's participation in appropriate activities, as well as, educational goals, supports and services.
Individualized Family Service Plan (IFSP)	The IFSP details early intervention services for young children with disabilities age birth to age three (with opportunity for an extension to age five). The plan, developed annually and reviewed every six months by a team that includes the family, is based upon the evaluation and needs of the child. The plan contains information about the child's present levels of development and services to be provided in the natural environment.
Individuals with Disabilities Education Act (IDEA)	The federal law ensures services to children with disabilities. IDEA governs how states and public agencies provide early intervention, special education, and related services to eligible infants, toddlers, children, and youth with disabilities.
Kindergarten Readiness Assessment (KRA)	The KRA is the keystone of Maryland 's Ready for Kindergarten (R4K) Early Childhood Comprehensive Assessment System. The KRA is administered at kindergarten entry. It measures a select skill set from the 60-66 month early learning standards that spans seven developmental domains.
Partnership for Assessment of Readiness for College and Careers (PARCC)	The Partnership for Assessment of Readiness for College and Careers is a multi-state national consortium working together to develop next generation K-12 assessments in literacy and math. Maryland is part of the consortium.

Portfolio	A portfolio is a form of strengths-based assessment that represents a collection of work generated by the child and provides evidence of students' skills and abilities.
Reliability	The degree to which scores on tests are consistent, dependable, and able to bereplicated.
School Readiness	Skills believed to be predictive of school success.
Screening	Screening provides a snapshot from one point in time, and is often a brief procedure or instrument. Screening is often used to determine if a more detailed assessment is necessary.
Summative Assessment	Summative assessments summarize a child's learning over a period of time related to content standards. Summative assessments typically include defined evaluation criteria and have fixed content to measure the level of child, school and program success.
Validity	The degree to which a test measures what it is intended to measure.

Why Assess?

Assessment informs instruction. How do you know where and how to lead a child, if you don't know what that child can do? We assess children's growth, in all domains, to plan developmentally for their current abilities, and build their skills. Assessing children's development and learning helps early childhood educators better understand individual children and tailor learning experiences, accordingly, so that children reach their full potential.

Throughout this guide you've read vignettes on how early childhood educators use methods, materials and strategies to engage student learning. These are all examples of how educators apply assessment results to curriculum design, implementation and evaluation. In various ways, the examples throughout this guide explore:

- Assessment of instruction - was it a good lesson? Did the children learn the objectives I taught because I taught it well, at their level?
- Assessment for instruction – am I teaching what the children need to learn based on what they can do and what they need to know next?
- Assessment as instruction – do I use assessment as part of the curriculum planning and implementation cycle and do the assessment results inform my decisions? When do I re-teach? When should I introduce new concepts and ideas? Is it time to intervene? Which children need more time, and which more challenges?

When we assess children, we don't guess – as early childhood educators, we know learning varies in many ways; readiness, interest and learning profile. These ideas have been explored in depth through the guide. School readiness calls for more understanding and a deeper analysis of the students' abilities. To move every student forward, a deeper understanding of what promotes and impedes progress is necessary.

Assessment in Maryland

From the Maryland Model for School Readiness (implemented in 1997) to the Ready for Kindergarten Early Childhood Comprehensive Assessment System (implemented in 2014), which includes a Kindergarten Readiness Assessment and an Early Learning Assessment for children ages 36-72 months, Maryland has created opportunities and tools that enable early childhood educators to regularly measure children's development and learning. Maryland's commitment to assessing children is driven by motivation to meet the needs of each child and to build a clear understanding of what instructional changes might be needed so that every child can reach their fullest potential.

Many school systems have different (diagnostic) assessment tools that they use to meet state standards within the developmental domains; the important point is that Maryland embraces assessment in the early years. Early childhood educators, researchers, and policymakers agree that assessments are the only comprehensive strategy for catching possible concerns early and intervening immediately. Our goal is to identify and support the children and families that may be in need of services early, to solve, or to minimize obstacles for the healthy growth and development of children, so that fewer students will be in need intensive intervention as they progress through the education system.

Assessment helps early childhood educators tailor instruction for each child. For individual children, assessment helps educators identify areas of strength, as well as areas where skills may need more reinforcement for mastery. From this, educators are able to pinpoint starting points and then map out a plan for how to help children move

along the continuum. When educators regularly assess children, they are able to identify challenges early and intervene promptly so that children are less likely to need special education services. As children progress through the primary grades, formative assessments inform on student skills, leading teachers to employ a variety of instructional strategies, to meet the learning style of diverse students.

Early childhood educators need to pay particular attention to the appropriateness of assessment and the interpretation of findings for children who may be at risk due to a variety of factors (e.g., having special learning needs, are English learners, come from economically challenging backgrounds). It is important to carefully examine a student's skill and use assessments to discern between a disability and a learning challenge that is the result of a child who's had limited exposure, opportunity or language to demonstrate awareness and competency. There is a profound difference between atypical development and a delay due to lack of experiences. Understanding the whole child helps educators apply the results of an assessment in context, allowing educators to focus on the strengths of the child and how those can be used to bolster all areas of learning. This means that early childhood educators should collaborate with other professionals that work with the child or family (psychologists, ESOL teachers, nurses, occupational therapists, social workers, and counselors) to develop a full picture of the child's development and learning experiences. Different professionals, outside of education may have data (medical, social work home visiting inventories) that can be included in a child's assessment portfolio that completes the growth, development and family picture.

Assessment creates an opportunity to identify young children at risk for learning based on a variety of reasons. For children with identified disabilities, the Individuals with Disabilities Education Act (IDEA) ensures the provision of a Free Appropriate Public Education in the Natural Environment or Least Restrictive Environment. This means that children with disabilities should participate in settings and programs that are designed primarily for children of the same chronological age without disabilities, both in the community and in schools. Only when a child's Individualized Family Service Plan (IFSP) or Individualized Education Program (IEP) cannot be successfully implemented in an early childhood setting or program, or if the setting or program would require changes to the curriculum or environment such that the nature of the setting or program would be fundamentally altered, should there be a consideration for the IFSP or IEP services to be delivered in a different environment or in a different program.

The formal identification and eligibility process for determining a disability begins with a referral by the family, physician, or an educator with the approval of the family, to the Single Point of Entry for the local Infants and Toddlers Program, or the local school system's Child Find office for children three through five years of age. Following the determination of eligibility, the process for developing an IFSP or IEP begins. A team is brought together to develop the content for a plan that will ensure access to the regular early childhood curriculum through incorporating evidence-based intervention, instructional strategies, supports, and accommodations.

Intervening at the earliest possible time and targeting identified special needs will help to ensure that each child with disabilities is able to make meaningful progress that results in narrowing of the school readiness performance gap. Early childhood educators and other services providers (e.g., speech and language, physical therapy, occupational therapy, and others) play a critical role in screening, assessing, and helping shape the IFSP and IEP so that children receive the intervention

and educational supports they need to succeed. All children are entitled to high expectations. Through the participation of early childhood educators as partners in the development of individualized plans and the subsequent delivery of services, children with disabilities can be supported in making individual progress as well as progress along the continuum of learning important for all children.

Maryland Learning Links (www.marylandlearninglinks.org) is regularly updated to have the most current information and resources for educators and families.

Educators' Voices: Harrison's pediatrician was concerned that he was showing signs of delayed speech. His physical development was on track, but at two years of age he was barely communicating. With the support of his family, the pediatrician made a referral to the local Child Find office. A more in-depth evaluation would help shed light on his development and provide guidance for an appropriate path for early intervention. The Child Find specialists conducted a series of formal assessments and identified a communication delay. In taking a family history, they realized that other members of the family were slow to talk as well. A plan was put together where Harrison would receive speech therapy three days a week and his parents would enroll him in a prekindergarten program two days a week so that he could have opportunities to interact with other children. In addition, Harrison's parents were coached so that they could support his speech development at home. With regular observation and more formal monitoring through standardized assessments, the specialists were able to track Harrison's progress over time and modify their work with him accordingly. By kindergarten, he was fully on track for all domains of development and proudly graduated from the Child Find program.

Assessment helps early childhood educators know whether their curriculum and instructional plans are yielding the results they were hoping for in children, or if changes are needed. Ongoing assessment helps early childhood educators understand if the curriculum and related lesson plans are working. For example, the data helps them know when it is appropriate to jump ahead, or when they need to circle back to cover material again. This helps educators fine-tune the curriculum and instructional goals. Further, they get insight on how best to group, and regroup, children within the learning environment.

The purpose of assessment is to gain a better understanding of a child's areas of strengths and needs, and to adjust instruction to promote learning. For children under age eight, assessment should not be used as a high-stakes tool to determine a student's learning trajectory or restrict opportunities. While assessment information within the context of IDEA can be used to determine a disability, the consequences are meant to create an individualized pathway to learning in the least restrictive environment. Assessment information within the context of teachers' instructional planning can be helpful in targeting coaching, mentoring, and professional development.

Educators' Voices: As a kindergarten team, we develop our own common data points. We use our experience with the curriculum, the standards and indicators, as well as proficiency statements provided by the county to guide us in development of common data points. We keep track of these data points in an excel document with the point at which they occur in the curriculum. We give students the opportunity to show proficiency in a variety of ways. They often write, draw, label, or talk to show proficiency. We encourage them to show what they know. As a team, we review what we learned from our observations, as well as data to guide classroom instruction and to meet individual needs. The common data points are a way for us to engage in meaningful discourse to improve our own instruction. We can also look at those students who may be struggling with a specific topic, and share ideas of next steps to use with the student. Each teacher collects additional data as necessary in assessing each student's progress, and we share those ideas as well with each other during our team meetings.

Educators' Voices: Truthfully, no one in our school looks forward to standardized testing – not the students and not the educators. But it is like seeing your doctor; you do it because you need to and it helps you in the long run. I do enjoy scouring the data when it comes back so that I can compare it to the past and see what progress the children are making. For some, it gives me a wake-up call that what I was suspecting, as a learning challenge, really is the case. When I notice a pattern of many children scoring poorly on a certain subtest, I take time to reflect on what that might mean and if there are things that I can be doing differently with the instruction to more clearly teach the concepts. In addition to the state-mandated tests, I also am continuously observing the children and doing my own formative assessments to track progress. I have come to learn that assessment is a good thing...a useful tool that helps me to differentiate, be intentional with my teaching, and make midcourse changes so that all children can realize their full potential.

Response to Intervention (RtI) - RtI is a systematic and intentional teaching practice that can help prevent non-diagnosed children from needing special education services and from receiving unnecessary labels (McCabe, 2006, NAEYC, 2013). RtI is different from the traditional screen, assess, evaluate and referral practice that educators use to identify children with special needs over the past several decades. Since 2009, Coleman, Roth & West's Response to Intervention has become part of best practice in education settings for all children. It is an instructional approach that encourages teachers to clearly and explicitly differentiate the level and intensity of support provided to learners to match the needs of individual children. RtI uses three levels of instruction to meet the changing needs of students. When properly implemented, using student data to inform on instructional decisions, students move through the tiers as needed, based on their skills in content areas.

- Tier 1 – Core – Universal Outcomes – All children in the learning environment engage with high quality instruction. Teachers use developmental screening, formative assessments and observational data to discern which students would benefit from targeted, intense support. All students must participate in Tier 1 instruction. Approximately 85 percent of a class will stay in the high-quality Tier 1 instructional level. If a large number of students needs more support, this informs on the strength of the instructional quality and the program might want to strengthen its core.

- Tier 2 – Targeted Assistance – Intentional Support – A few children from time to time, need additional support with specific subjects or specific skills. This is not necessarily a special education intervention, but is designed to provide extra attention to developing skills. Many children move to Tier 2 for specific help and then move out of Tier 2 back to the core instruction of Tier 1 after the particular issue has been resolved. Tier 2 has enrollment fluidity; children move in and out of this level of instruction based on the analyzed data analyzed gathered through formative assessments. Teachers carefully document the interventions, the amount of time a student spends learning skills and monitor progression. Approximately 10 percent of a class will visit targeted assistance – Tier 2 instruction. If a student is spending extended time in Tier 2 instruction further support may be necessary.

- Tier 3 – Intensive Support – Individualized High Quality Support - These are opportunities for children to work 1:1 on a specific area for skill improvement. Although a young student may be receiving specific targeted support, they still participate in the core instruction of Tier 1.

Educators' Voices: Our second grade team comes together regularly to review our data and determine if there are children who are in need of more intensive intervention in reading. When we discover this is the case, we are able to bring in a learning specialist who is trained to work specifically with children who are having reading challenges. We also look at the data to see

if there are children who are excelling beyond what is typical for second grade. In this case, we know we need to extend learning opportunities for them and coordinate with the gifted and talented program. By regularly reviewing the data, we are able to be on top of the learning profiles of the students and tailor learning opportunities for them.

Types of Assessment

There are many different types of assessments that early childhood educators can use to measure children's progress. Care should always be given to match assessment to the information you need to evaluate the situation.

- Screenings provide a snapshot of a child's development and measure a child's typical development within a given range. Screenings, as in the medical world, are designed to screen out any potential developmental delays or trigger a full evaluation of the child's development.
- Authentic assessments, also known is indirect assessment, provide depth and understanding of a child's abilities within various contexts of learning. It is authentic or indirect because teachers collect information on a student over time and in multiple ways by recording observations, keeping running records, or collecting work samples in a portfolio.
- Curriculum-based assessments measure the depth of student understanding to the specific learning objectives of a curricular unit. This type of assessment is very closely aligned to the curriculum that is being taught and finds its way to most published curricular guides.
- Diagnostic assessments measures students' current knowledge and skills to identify the most appropriate learning program. Such assessments are very common in early grades to determine foundational reading skills.
- Performance-based assessments are typically summative in nature and focus on measuring achievement within the context of standards our student outcomes. This type of assessment is standardized and typically administered once during a school year.

Formative Assessments

A common practice among early childhood educators is the use of authentic assessments measures with the youngest of the age range they teach, namely infancy through prekindergarten. Mere observation in the absence of an established working system, however, does not deserve the name assessment. Even authentic assessment practices must be rooted in a specific set of principles and guidelines that are related to the age group's learning objectives. Formative in nature, this type of assessment helps early childhood educators track individual children's progress, individualize learning opportunities, plan for intervention, and engage in real-time curriculum planning. Authentic assessments can include observations, portfolios of work samples, anecdotal records, on-demand assessments (such as asking a child to count to ten), or teaching a brief lesson and then having a project for the child to demonstrate what was learned.

Educators' Voices: In my special education prekindergarten classroom, sometimes I have the same students for up to 2½ years. It is extremely important and a requirement that I document the students' progress over time to ensure that they are growing and learning. When my students arrive, I

take a video of them (with parent permission) using a Flip video camera. This helps me document their speech, behavior, and social interaction skills. I also mark all of the skills we hope to see by the end of their prekindergarten experience. This includes speech skills, early literacy, early math literacy, book handling skills, following directions; fine motor skills, gross motor skills, positional concepts, and so much more. I assess the children over time with the assessments that are appropriate at the time. I mark the date that each skill was observed as achieved. I keep that same document during their time at school. I attach work samples to the packet. By the end of their time in my classroom, I have a document with all of the important benchmarks and the dates that they achieved them. I share this document with their next educational program and with their parents as well.

Diagnostic assessments are also considered formative but considerably more prescriptive and used on preschoolers and in lower elementary grades. This type of assessment measures specific discrete skills, assumed to be critical for meeting pre-establishing learning objectives or content standards. The assessments help teachers determine to differentiate to their students' needs their early literacy or reading program.

Summative assessment

These types of assessments summarize the learning of children at a particular point in time related to content standards. Summative assessments typically include standardized performance-based achievement tests used with children older than eight years. However, the notion of summarizing formative assessment data has recently made its way into the early childhood education field. While still a controversial issue among assessment experts, many states examined the cross-section of measuring readiness for school with a population whose developmental age makes them unsuitable for standardized tests. Several states (Maryland among them) and a handful of publishers customized or developed assessment systems that "standardized" the process of using authentic assessments techniques, such as extensive professional development in observation skills, use of objective learning criteria, and monitoring of the assessment implementation.

In carefully worded recommendations, the Committee on Developmental Outcomes and Assessments for Young Children (Snow & Van Hemel, 2008) provided guidance and encouragement to practitioners, state, and federal agencies to include the provisions of a Kindergarten Readiness Assessment (KRA) into statute and grants. The notion of a KRA was a summative look at what each child knows at the entry to kindergarten. This compares to the Partnership for Assessment of Readiness for College and Careers (PARCC), which is a different summative assessment, as it measures proficiency near the end of the instructional school year after the students have been exposed to the curriculum.

Ready for Kindergarten (R4K): Maryland's Early Childhood Comprehensive Assessment System (EC-CAS)

The Maryland EC-CAS is a set of linked systems that is designed to measure, monitor and improve the school readiness of all children. As envisioned, this new family of tools has been developed to be one assessment system for all children from thirty-six months through seventy-two months, and a kindergarten entry assessment, administered at kindergarten entry (median age sixty-three months). All measures in this system are:

a. Aligned to a continuum of early learning standards,[18] that span seven developmental domains (social foundations, literacy, mathematics, physical-motor, science, social studies and the arts);

b. Supported by a robust system of professional development for teachers and child care providers, as well as school and district administrators;

18 Including the prekindergarten Maryland College and Career-Ready Standards in English Language Arts and Mathematics.

c. Accompanied by sufficient resource and support for implementation;

d. Connected to state longitudinal data systems to allow for consistent and meaningful reporting at the student, class, school, district and state levels; and

e. Monitored and evaluated to ensure fidelity, validity, and reliability (Council of Chief State School Officers (CCSSO), 2011; National Early Childhood Accountability Task Force, 2007; Maryland's Race to the Top - Early Learning Challenge Grant Application, 2011).

In addition, the EC-CAS includes state recommended developmental screening tools which will assist licensed child care providers to assess young children's development to determine if developmental intervention services are needed. The developmental screening tools recommended by the Maryland State Department of Education (2014) are:

- Ages and Stages Questionnaire – 3
- Brigance Early Childhood Screen III
- Early Screening Inventory – Revised
- Dial 4 & Speed-Dial

Who Should Assess Children?

Skilled early childhood educators are well versed in the application of authentic assessment techniques as part of their instruction whether they work with preschool-age children or in lower elementary grades. The Kindergarten Readiness Assessment (KRA) requires one teacher (i.e., teacher of record) to administer the assessment during the first weeks of the kindergarten year.[19] While teachers of "special programs" (e.g., the arts or physical education) are in a position to assist the kindergarten teacher in recording the assessment items pertaining to the special instructional programs. Since the EC-CAS includes the assessment of children with disabilities as part of the State's online IEP program, preschool special education teachers are the teacher of record for preschool-age children with disabilities.

On a voluntary basis, for children, thirty-six months to kindergarten entry, prekindergarten, child care, Head Start, and preschool teachers are designated to implement the formative assessment component of the EC-CAS. Eventually, family child care providers will also be able to assess the preschoolers in their care.

All persons administering the EC-CAS need to have a strong background in child development and adequate training in the use of the assessment and how to interpret the results of the assessment for instructional purposes. Staff engaged in assessment should receive specific training to ensure that they know how to individualize for each child while preserving the integrity of the assessment. The goal is to help children demonstrate what they know.

Kindergarten teachers in public schools should work closely with the ESOL teacher to determine the appropriateness and circumstances for administering the assessment with English learners. The EC-CAS, using UDL principles will provide guidance on improving access to children with limited English proficiency. The ESOL teacher can be of great assistance to inform the teachers about any proficiency test that was done with English learners for whom the KRA is being administered. Any close working relationship with the ESOL teacher can also mitigate the impact an assessment situation can have on a young English learner.

Educators' Voices: Miguel was new to our school. His family emigrated from Central America and was successfully settling into a new routine in the community. They were connected to a local church and Miguel's father had temporary but dependable employment. Miguel's parents only spoke Spanish, but Miguel and his siblings were showing eagerness to learn English. I

19 The "assessment window" is from the beginning of the school year – practically speaking after Labor Day - through October.

observed him often at the beginning of the year and saw that he had a really strong foundation in his first language and an eagerness to learn. I kept notes of his progress, created special vocabulary books for him, and spoke to him in his native language at times to check in and make sure he was okay. When it came time to take standardized tests, I noticed that he would deflate – while his skills were developing, he couldn't complete the tests as his native English-speaking peers. Though he was making terrific progress, I knew it would take him a while for him to fully embrace the language and all the nuances that came naturally to many of his classmates. I didn't let this "get him down;" instead, I focused on the progress he was making and made a big deal about the growth so that both Miguel and his parents could see his achievements.

How to Use Assessment Data to Set Instructional Purposes

It is essential that assessments are intentionally linked to child growth, development, curriculum and instruction. When early learning educators make assessment on a daily, ongoing activity, they are continuously able to review progress and use that information to modify their teaching to match the children's pace of learning, abilities, and interests. Data from more traditional assessments supports this process as well as reviewing data to see what progress is being made toward achievement of the goals, and then target and revise practices accordingly. Increasingly, educators are engaging children in evaluating their own work as part of the formative assessment process so that children have an investment in their own learning. Teachers are helping children identify and set their own goals. Empowering children to be part of the instructional decision making process based on the assessment results can help children take responsibility for their learning.

Monitoring and Assessing Progress

A skilled early childhood educator uses authentic assessment techniques as part of their instruction on a daily basis. It forces teachers to look closely and objectively to provide timely, constructive, and specific feedback to the learner (see Feedback in Chapter 7). It is also a critical teaching skill when providing response to intervention (RtI) at Tier 2 when targeted assistance is needed to support the students' learning. Collecting recorded observations and work samples provide evidence as to whether targeted support is still needed or not. In addition, any of the collected work samples and recordings are effective means of engaging families in understanding their children's learning progress and encourage them to become at home better observers of their children's learning.

Educators' Voices: I use circle time to work on some foundational skills for reading with my prekindergarten students, including isolating and pronouncing the initial sound of a specific word, blending, and segmenting phonemes. Sometimes I do this as we are writing the morning message together. I will identify a word that we are using (e.g., tomorrow) and the children and I will practice with that word. Sometimes at the end of the day or the beginning of the next day, we will review the morning lesson, both with the word used and a similar word so that I can see if the concepts held and if they are able to translate them to another word. I watch and listen carefully to see which of the children own the concept and which might need more support. For those who need more help, I build it into the small group time in the coming days. Sometimes I need this smaller group opportunity to break the ideas down to see where a child may be having difficulty. For those children who are secure with the

concepts, I use their small group time to work on next-level skills. In doing this, I am trying to provide the support to the children who need more time to grasp the concept, but also creating opportunities for the children who already own it to move ahead.

Educators' Voices: I use quiet time in my kindergarten class to check in with the children on their reading and fluency skills. Of course, I cannot check in with each child every day, but I try to connect with them once a week, and more often for the children who need additional support. With a tape recorder or iPad in tow, I even record the children reading aloud so that I can go back later, calculate fluency scores, and compare their new reading to a prior recording. By observing the children's reading in this way, I am able to track their progress, support skill development, and point them to the appropriate level books for them to use in the class and to take home. I have come across some children who have experienced tremendous and rapid development with their reading skills, for whom I have little in my classroom library to meet their interest or challenge them further. When this happens, I consult with the librarian or teachers in higher grades to get appropriate books to support such children. I strongly encourage reading at home and, based on my data of the children's reading levels, I send books home that they can read independently and with great confidence to their family.

The Data Surprise

While assessment can and should drive instructional goals, all early childhood educators should remember that data from assessments provides just a bit of information that educators need to consider – it's one piece of evaluating the learner's abilities. Findings from assessments that are linguistically incompatible with a student may not be reflective of the child's true abilities. Early childhood educators can consider portfolio data and information from other sources to gain a full picture of the whole child as previously discussed (e.g., the family, social workers, counselors, health providers). From this – blending what they know, what other professionals share, and what the data says – educators are able to set realistic goals for each child and for group instruction.

Early childhood educators are cautioned from dismissing data because it does not reflect what they "know, from experience" about a child. Often times it is our relationship with our young students that makes us great teachers and caring providers. Those same strengths in our adult skills can also lead us to compensate, perhaps unknowingly, for the children in our environments. If teachers are familiar with the assessment tool, administer it correctly and the results are surprising, it should be used as the objective basis for instructional support, interventions, or referrals for further testing.

As professions, early childhood educators are also required to engage families early on in sharing any assessment results that call for intervention, whether that be done with the EC-CAS or any other assessment instrument used by licensed providers. That process is particularly critical with children under thirty-six months. Any developmental screening results that warrant further evaluation must be reported to the local Infants and Toddlers program or Child Find, a service offered by the local school systems. The data surprise - discovering something unexpected about a child- is a common occurrence and deserves your professional attention.

What Do You Do if Data Catches You By Surprise?

- Look at the data results carefully; was the screening tool or assessment tool administered correctly and the score properly calculated?
- Was it a "good day" to screen or assess the child (free from illness, virus, routine disruptions and other unpredictable commotions)?
- Is there other data available from another source (medical, social work, parental in-put) to complete the growth and development portfolio of information for this child?
- Are you informed on how to make a referral for further assessment based on the data you've collected?
- What will you say to the family? A data surprise is often felt by teacher and family. Take steps to prepare yourself on how to share this information with parents and family members so they are best equipped for next steps and available resources to best support the child.

Families as Partners in Assessment

As early childhood educators talk with families about the purpose of assessment, they should acknowledge the important role that families play as their child's first teacher. It is important for families to know that they have an important role in educating their child and that assessment -- and acting on the findings of assessment -- is essential. Early childhood educators need families to be active participants in supporting children's learning in and out of the home. It is in the best interest of the child when the adults in the home and daily learning environment work as a team.

From the beginning, early childhood educators should talk with families about the importance of regular, ongoing assessment and how different assessments are used to monitor children's progress. Assessments help educators and families better understand the strengths and potential challenges of individual children, so that strategies can be tailored to best meet each child's interests and needs.

While assessments are part of the instructional program, it is a good practice for early childhood education programs to inform families when the assessment information is being shared with them. A teacher-parent conference is the typical forum for sharing information about their children's learning and the growth they have made. Most critical in those conversations is the professional guidance by teachers on what families can do at home to support their children's learning. The use of a portfolio work samples or recorded observations are memorable indices of their children's level of comfort and learning. Children can also play a role in sharing their portfolio samples with their family. A skilled early childhood educator also knows that such conversations about assessment increase the chances for a strong teacher-student-parent relationship, thereby enhancing a positive school climate, even if the assessment results indicate challenges for the learners.

In such cases, early childhood educators should share information that is helpful to the family so they are, knowledgeable and can make an informed decision for next steps. Providing suggestions for action is also important so that the family knows precisely what they can do to help their child make gains in a given area of development.

Educators' Voices: It was clear to me that Cassie was having difficulty with solving equations and inequalities in our first grade math program. I noticed that she was struggling with assignments in class and that her homework was coming back consistently wrong. Though I worked one-on-one with Cassie for a few minutes during the day, she still had a hard time

mastering the concept. I called her parents and asked if I could send home math games on the weekends to see if, in a fun way with her family, she could keep practicing the concepts and get them to stick. Her dad always picks her up on Friday from the aftercare program, so I offered to meet him at aftercare and to walk him through the game. I included a form on which Cassie could write about her experience playing the math game with her family, and her parents could record their impressions and ideas as well. Each Monday, Cassie would bring the game and the form back to school. As the week progressed I would pull another idea for a game from my file. Cassie started to show great progress, and it was clear that the extra help her parents were providing by playing math-related games linked to our class curriculum was helping. I kept meeting with Cassie's father for a few minutes each Friday and passed along additional games. The family happily shared in the responsibility of supporting Cassie's learning and shared in the joy too, as they saw that she was feeling more confident with her math skills.

Sharing Child Focused Data

Confidentiality is at the heart of child-centered data. Information about a specific child should be stored, away from public areas; password protected in digital form and requires parental permission to share. Early childhood educators take precautions daily to keep personal and sensitive information about a child private.

Some early childhood educators spend multiple years with the same child; others may just teach a child for a year. From anecdotal notes to portfolios and more formal assessments, the data gathered by educators provides a useful picture of the child's learning and development.

There are many types of transitions that children experience in early childhood. For some, it is a transition from one room in a program or school to another (e.g., from the infant room to a toddler room; from the kindergarten to a first grade classroom). For others, it might be a transition from informal care to a formal program or from a private setting to a public school. As children move through these transitions, it is important for early childhood educators to intentionally facilitate that process, and sharing information about the children is one way to do that. Digital portfolios of a child's work are becoming common amongst educators, making the transfer of information just a few clicks away.

Transferring knowledge between programs and educators

The underlying goal is to bridge the gap between the sending and receiving educator so the child's learning can be seamless. Portfolios between educators are generally very specific in nature and provide a history of the child's growth and development. Portfolios between educators are becoming common in all age spans birth – eight years, especially as part of the articulation meetings between the sending and receiving teachers. In some cases, parents will hand carry portfolios between programs to deliver current information about their child to the receiving program. When preparing and sending portfolios to other educators the following are suggested items to include:

- Art sample – a typical representation of a child's piece of work
- Draw a person – this is often done in early childhood programs and can provide future educators with knowledge about a child's perceptions, cognitive engagement and fine motor skills
- Writing sample – as appropriate through the age span birth – eight years
- Photographs/videos – artifacts that demonstrate student skill that can best be captured by photograph such as block building, physical agility and speech

- Formative assessment data – objective information on a child's progression through the seven domains of development within the Maryland EC-CAS (social foundations, literacy, mathematics, physical-motor, science, social studies and the arts), and

- Diagnostic assessment data – the tool uses most recent scores and instructional recommendations or referrals are made as appropriate[20]

Building Portfolios for Families

Portfolios for families are different than those shared among professionals. Parent portfolios are often keepsakes that become part of a family's treasure, building memories to be kept for years and years. Portfolios for parents can also become communication tools to inform parents throughout the school year with examples of a child's work, indicating how they spend their day in a program while away from them. Used in this manner, portfolios for families become an engagement tool that builds the relationship between family, child and the learning program. Portfolios for parents are often given to the family at transitions during a child's life such as moving from the young toddler to the older toddler room or when a child moves from a small program to a larger learning environment.

Educators' Voices: I create portfolios for each child in my home-based program. I share a model portfolio with all new families and explain to them that together we will build the portfolio so that we can all keep track of their child's development. I explain that we will have a "go to" binder where we can find all important information related to the child. They know that the portfolio will be a place to include memorabilia from developmental milestones (a photograph of a smile with the first tooth, the first painting); a place used to keep copies of learning goals, assessments, and notes about related strategies for learning for both in the program and at home; and it will be also a place where the family can keep medical records (immunization chart, notes from doctors) and contact information for other resources in the community. The portfolio travels back and forth in the backpack once a week, so that the parents always have access to the information, and so that I can add things to update it on a regular basis. When it is time for the child to transition to another setting or the public school, I encourage the family to share the portfolio with the new educator so that they will have background about the child. I find that the families really cherish the portfolio, they put time in it themselves to keep it up to date, and they appreciate the things that I include. It becomes a valued keepsake that they are proud to have.

Educators' Voices: In my infant and toddler program, I use portfolios to document children's growth and development. Over the years I've created a standard format for the portfolio so that it includes several sections – one on each domain of development -- and a resources section. I regularly put information into the portfolio so that the family and I can see over time how their child is progressing. The families are invited to put information in the portfolio, too, from experiences the child is having at home and in the community. At the end of the year, I copy some of the most essential pieces from the portfolio and prepare a packet for the new teacher, but the rest of the portfolio goes home with the child as a memory of their year in my program.

20 Diagnostic tests are typically part of the student file

TIPS FOR EARLY CHILDHOOD EDUCATORS

USING ASSESSMENT TO SUPPORT DEVELOPMENT AND LEARNING

- Conduct ongoing assessments that look at all domains of development.
- Use multiple means over time for gathering data – portfolios, observations, and anecdotal notes, as well as formative and summative assessments.
- Ensure the assessment tools you use are measuring what you seek to gather information about.
- Know how to conduct the assessment so that valid findings will be an accurate representation of the child.
- Consider the whole child when reviewing the assessment data. Reach out to the family and other providers the child/family may work with and see what data they might have that should be taken into consideration.
- Use assessments to drive instruction and lessons so you can help the children get to the next set of skills.
- With appropriate consent, share findings with families and others who work with the child, and provide actions steps that you and the family can carry out together to support learning.
- Ensure that the assessment data is accessible as children transition from one program or school to another.
- Ensure assessment data is secure to protect the child's privacy.
- Involve children appropriately as stakeholders in their assessment process.

FAMILY VOICES

I had a test phobia as a child. Other than spelling tests where I could drill, drill, drill and feel confident that I knew the lesson, I hated tests. I remember the threats – if you don't get a good grade, you cannot play sports; if you don't get a good grade, you cannot go to the movies. I was trying, but I just froze with anxiety when it came to taking tests.

When Torrie was born, I vowed that I would not put that same kind of pressure on her. It was the effort that was important in my mind, more so than the grades. I found myself surrounded by teachers who embraced a growth mindset. It felt so good for the focus to be on growth and not just total mastery. The educators were continuously observing Torrie's learning and development and keeping me apprised of what they were finding. Sometimes they would jot me a note and share something that she learned that day; other times they would tell me at drop-off or pick-up. The communication was open and positive.

The educators wanted me to be involved in Torrie's learning. They sent home games I could play with her, suggested books we could read, and family field trips that we could take. There wasn't pressure to do these things, but I couldn't help but be excited and want to do them when I knew that they related to what Torrie was learning and that I too could help her achieve.

TAKE TIME FOR SELF-REFLECTION...

Do I have the background knowledge and skills to effectively assess children? Where do I go to get the training and support I need to be able to engage in accurate observation and assessment?

What are some of the informal ways that I assess the children? What do I do with this information? Are there ways I could more intentionally use the data to support each child? How would I do that? Who would I turn to for guidance?

When and how do I talk with families about assessment? How could I share information from assessments with families in a non-threatening way so that we can work together to support each child?

Am I relying on multiple measures over time to get a complete picture of every child? What do I do with the assessment information when the children transition? How might I be able to make sure that the child's next educator benefits from all I know about the child?

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WEB LINKS

Colorin Colorado – Assessment for Young English language learners: Strengths and Limitations
http://www.colorincolorado.org/webcasts/assessment/

Colorin Colorado – English Language Learner Policy Issues: Early Childhood Education
http://www.colorincolorado.org/policy/issues/pre-k/

Colorin Colorado – Using Informational Assessments for English language learners
http://www.colorincolorado.org/educators/assessment/informal/

Maryland Early Childhood Gateway
http://www.mdecgateway.org/

Maryland Healthy Beginnings
http://marylandhealthybeginnings.org/

Maryland Learning Links
http://www.marylandlearninglinks.org/

National Association for the Education of Young Children
http://www.naeyc.org

Partnership for Assessment of Readiness for College and Careers (PARCC)
http://www.parcconline.org/

Ready at Five
http://www.readyatfive.org/

Maryland infant and toddlers program
http://www.marylandpublicschools.org/MSDE/divisions/earlyinterv/infant_toddlers/about/message.htm

Maryland Early Learning Standards
Birth – 8 Years

Maryland State Department of Education
PREPARING WORLD CLASS STUDENTS

Maryland State Department of Education
Division of Early Childhood Development

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EXECUTIVE SUMMARY

Early learning standards define the key aspects of development and learning that are the foundation for a child's school and life-long success. By outlining the expectations for what children should know and be able to do at different ages of early childhood, these standards represent the developmental and learning goals that early childhood administrators and educators strive to meet for the children they serve. While the progress of children toward the standards will vary depending on a variety of factors, the standards act as a guide for the pedagogical and programmatic decisions of early childhood programs and providers. Decisions related to curriculum, assessment, professional development and family engagement, among others, should be made with child progress toward the standards in mind.

For early childhood programs in Maryland, expectations are defined by a set of early learning standards that came from two sources: These are Healthy Beginnings: Supporting Development and Learning from Birth through Three Years of Age and the Maryland College and Career-Ready Standards for Pre-K - 12.

Healthy Beginnings was developed by the Maryland Department of Education and provides early learning standards for children birth through three-years-old. The document is intended for use by families or early childhood practitioners living or working with infants or very young children (i.e., end of age four). The Maryland College and Career-Ready Standards were developed by the Maryland Department of Education to align to the K-12 Common Core standards that were adopted in 2010. The Maryland Early Learning Standards document includes the prekindergarten to grade 2 portion of the Maryland College and Career-Ready Standards.

In 2003, to help providers navigate the different standards, the Maryland Department of Education created a standards alignment document. The document was developed to illustrate that there was in fact strong commonality among the standards, and created a common frame of reference so providers could work collaboratively with families to meet expectations regardless of the funding stream or program setting. Since the creation of that document, however, new versions of two of the standards documents have been published. Healthy Beginnings replaced the Maryland Guidelines for Healthy Child Development and Care for Young Children, and the Maryland College and Career- Ready Standards replaced the Common Core Frameworks and the State Curriculum.

The full document provides an updated alignment based on the most recent versions of these early learning standards. The goal of this Executive Summary document is to provide examples from the standards in each of the content areas.

The areas include: Language and Literacy, Mathematics, Social Studies, Science, Health, Physical Education, Fine Arts and Social Foundations.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., repeat repetitive phrases from a story).	Show comprehension by demonstrating understanding of text during and after reading (e.g., answer simple questions about a story).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., make guesses about what a story is about).	A. Key Ideas & Details RL1: With modeling and prompting, answer questions about details in a text.	A. Key Ideas & Details RL1: With prompting and support, ask and answer questions about key details in a text	A. Key Ideas & Details RL1: Ask and answer questions about key details in a text.	A. Key Ideas & Details RL1: Ask and answer such questions as who, what, where, when, and how to demonstrate understanding in a text.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., answer simple questions about details in a story).	Show comprehension by demonstrating understanding of text during and after reading (e.g., ask and/or answer questions about a story while it is being read).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., point out familiar concepts by looking at pictures in a text).	A. Key Ideas & Details RL2: With modeling and support, retell familiar stories/poems.	A. Key Ideas & Details RL2: With prompting and support, retell familiar stories, including key details.	A. Key Ideas & Details RL2: Retell stories, including key details, and demonstrate understanding of their central message or lesson.	A. Key Ideas & Details RL2: Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.

Domain: Language & Literacy **Strand:** Reading Literature **Standard:** Analyze how and why individuals, events, and ideas develop and interact over the course of text.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., begin to identify simple pictures or familiar people).	Demonstrate vocabulary and comprehension by listening with interest and displaying understanding (e.g., perform an action shown in a book).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., begin to understand that stories can be acted out).	A. Key Ideas & Details RL3: With modeling and support, identify characters, settings and major events in a story.	A. Key Ideas & Details RL3: With prompting and support, identify characters, settings, and major events in a story.	A. Key Ideas & Details RL3: Describe characters, settings, and major events in a story, using key details.	A. Key Ideas & Details RL3: Describe how characters in a story respond to major events and challenges.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from books).	Develop vocabulary, language usage and some conventions of speech (e.g., name an increasing number of objects in a book, and describe actions).	Expand vocabulary and language usage (e.g., discover the meaning of new words from the context or pictures).	A. Craft & Structure RL4: With modeling and support, answer questions about unknown words in stories and poems.	A. Craft & Structure RL4: Ask and answer questions about unknown words in a text.	A. Craft & Structure RL4: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	A. Craft & Structure RL4: Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from familiar books).	Show comprehension by demonstrating understanding of text during and after reading (e.g., listen to fiction and non-fiction materials).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., listen to a variety of fiction and non-fiction materials).	A. Craft & Structure RL5: Gain exposure to common types of literary texts (e.g., storybooks, poems).	A. Craft & Structure RL5: Recognize common types of texts (e.g., storybooks, poems).	A. Craft & Structure RL5: Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	A. Craft & Structure RL5: Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Assess how point of view or purpose shapes the content and style of a text.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from familiar books).	Show comprehension by demonstrating understanding of text during and after reading (e.g., listen to fiction and non-fiction materials).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., listen to and discuss a variety of books).	A. Craft & Structure RL6: With modeling and support, identify the role of author and illustrator.	A. Craft & Structure RL6: With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	A. Craft & Structure RL6: Identify who is telling the story at various points in a text.	A. Craft & Structure RL6: Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.*

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., begin to identify simple pictures or familiar people).	Recognize that symbols have corresponding meaning (e.g., find favorite cereal by the picture on a box).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., point out familiar concepts by looking at pictures in a text).	A. Integration of Knowledge & Ideas RL7: With modeling and support, tell how the illustrations support the story.	A. Integration of Knowledge & Ideas RL7: With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).	A. Integration of Knowledge & Ideas RL7: Use illustrations and details in a story to describe its characters, setting, or events.	A. Integration of Knowledge & Ideas RL7: Use information gained from the illustrations and words in print or digital text to demonstrate understanding of its characters, setting, or plot.

Domain: Language & Literacy
Strand: Reading Literature
Standard: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Integration of Knowledge & Ideas RL9: With modeling and support, compare adventures and experiences of characters in familiar stories.	A. Integration of Knowledge & Ideas RL9: With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	A. Integration of Knowledge & Ideas RL9: Compare and contrast the adventures and experiences of characters in stories.	A. Integration of Knowledge & Ideas RL9: Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Domain: Language & Literacy **Strand:** Reading Literature **Standard:** Read and comprehend complex literary and informational texts independently and proficiently.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., answer simple questions about details in a story).	Show comprehension by demonstrating understanding of text during and after reading (e.g., ask and/or answer questions about a story while you are reading).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., makes guesses about what a story is about).	A. Range of Reading and Level of Text Complexity RL10: Actively engage in group reading activities with purpose and understanding.	A. Range of Reading and Level of Text Complexity RL10: Actively engage in group reading activities with purpose and understanding.	A. Range of Reading and Level of Text Complexity RL10: With prompting and support, read prose and poetry of appropriate complexity for grade 1.	A. Range of Reading and Level of Text Complexity RL10: By the end of the year, read and comprehend literature, including stories and poetry, in the grade 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., point to and name several pictures in a book).	Show comprehension by demonstrating understanding of text during and after reading (e.g., answer simple questions about a book).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., make guesses about what a book is about).	A. Key Ideas & Details RI1: With modeling and support, answer questions about details in an informational text.	A. Key Ideas & Details RI1: With prompting and support, ask and answer questions about key details in a text.	A. Key Ideas & Details RI1: Ask and answer questions about key details in a text.	A. Key Ideas & Details RI1: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key ideas in a text.

Domain: Language & Literacy **Strand:** Reading Informational Text **Standard:** Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., answer simple questions about details in a book).	Show comprehension by demonstrating understanding of text during and after reading (e.g., ask and/or answer questions about a book while it is being read).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., point out familiar concepts by looking at pictures in a text).	A. Key Ideas & Details RI2: With modeling and support, recall one or more detail(s) related to the main topic from an informational text.	A. Key Ideas & Details RI2: With prompting and support, identify the main topic and retell key details of a text.	A. Key Ideas & Details Rl2: Identify the main topic and retell key details of a text.	A. Key Ideas & Details RI2: Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Analyze how and why individuals, events, and ideas develop and interact over the course of text.
Learning Progression: Story/Text Comprehension

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., begin to identify simple pictures or familiar people).	Demonstrate vocabulary and comprehension by listening with interest and displaying understanding (e.g., perform an action shown in a book).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., make up a story about a book).	A. Key Ideas & Details RI3: With modeling and support, connect individuals, events, and pieces of information in text to life experiences.	A. Key Ideas & Details RI3: With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	A. Key Ideas & Details RI3: Describe the connection between two individuals, events, ideas, or pieces of information in a text.	A. Key Ideas & Details RI3: Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from books).	Develop vocabulary, language usage and some conventions of speech (e.g., name an increasing number of objects in a book, and describe actions).	Expand vocabulary and language usage (e.g., discover the meaning of new words from the context or pictures).	A. Craft & Structure RI4: With modeling and support, answer questions about unknown words in a text.	A. Craft & Structure RI4: With prompting and support, ask and answer questions about unknown words in a text.	A. Craft & Structure RI4: Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	A. Craft & Structure RI4: Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from familiar books).	Show comprehension by demonstrating understanding of text during and after reading (e.g., listen to fiction and non-fiction materials).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., listen to a variety of fiction and non-fiction materials).	A. Craft & Structure RI5: With modeling and support identify the front cover, and back cover of a book.	A. Craft & Structure RI5: Identify the front cover, back cover, and title page of a book.	A. Craft & Structure RI5: Know and use various text features (e.g. headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	A. Craft & Structure RI5: Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

Domain: Language & Literacy **Strand:** Reading Informational Text **Standard:** Assess how point of view or purpose shapes the content and style of a text.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., learn some simple words and phrases from familiar books).	Show comprehension by demonstrating understanding of text during and after reading (e.g., listen to fiction and non-fiction materials).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., listen to and discuss a variety of books).	A. Craft & Structure RI6: With modeling and support define the role of the author and illustrator/photographer in presenting the ideas or information in a text.	A. Craft & Structure RI6: Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	A. Craft & Structure RI6: Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	A. Craft & Structure RI6: Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.*

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., begin to identify simple pictures or familiar people).	Recognize that symbols have corresponding meaning (e.g., find favorite cereal by the picture on a box).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., point out familiar concepts by looking at pictures in a text).	A. Integration of Knowledge and Ideas RI7: With modeling and support, tell how the illustrations/photographs support the text.	A. Integration of Knowledge and Ideas RI7: With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	A. Integration of Knowledge and Ideas RI7: Use the illustrations and details in a text to describe its key ideas.	A. Integration of Knowledge and Ideas RI7: Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., answer simple questions about details in a book).	Show comprehension by demonstrating understanding of text during and after reading (e.g., ask and/or answer questions about a book while it is being read).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., ask and answer questions about a book).	A. Integration of Knowledge and Ideas RI8: With modeling and support identify the reasons an author gives to support points in a text.	A. Integration of Knowledge and Ideas RI8: With prompting and support, identify the reasons an author gives to support points in a text.	A. Integration of Knowledge and Ideas RI8: Identify the reasons an author gives to support points in a text.	A. Integration of Knowledge and Ideas RI8: Describe how reasons support specific points the author makes in a text.

Domain: Language & Literacy
Strand: Reading Informational Text
Standard: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Integration of Knowledge and Ideas RI9: With prompting and support, discuss similarities and differences between two texts on the same topic (i.e. in illustrations or descriptions).	A. Integration of Knowledge and Ideas RI9: With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	A. Integration of Knowledge and Ideas RI9: Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	A. Integration of Knowledge and Ideas RI9: Compare and contrast the most important points presented by two texts on the same topic.

Domain: Language & Literacy **Strand:** Reading Informational Text **Standard:** Read and comprehend complex literary and informational texts independently and proficiently.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases (e.g., answer simple questions about details in a book).	Show comprehension by demonstrating understanding of text during and after reading (e.g., ask and/or answer questions about a book while you are reading).	Develop comprehension by demonstrating understanding of text during and after reading (e.g., makes guesses about what a book is about).	A. Range of Reading and Level of Text Complexity RI10: Actively engage in group reading activities with purpose and understanding.	A. Range of Reading and Level of Text Complexity RI10: Actively engage in group reading activities with purpose and understanding.	A. Range of Reading and Level of Text Complexity RI10: With prompting and support, read informational texts appropriately complex for grade 1.	A. Range of Reading and Level of Text Complexity RI10: By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Domain: Language & Literacy
Strand: Reading Foundational Skills
Standard: RF1 Demonstrate understanding of the organization and basic features of print.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that symbols have corresponding meaning (e.g., put toys away in correctly labeled bins or shelves).	Recognize that symbols have corresponding meaning (e.g., sing the alphabet song, pointing to the letters). .	A. Print Concepts RF1.a: Demonstrate an awareness that words are read from left to right, top to bottom and page by page. RF1.b: Recognize that spoken words can be written and read. RF1.c: Understand that words are separated by spaces in print. RF1.d: Recognize and name some upper and lowercase letters of the alphabet.	A. Print Concepts RF1.a: Follow words from left to right, top to bottom, and page by page. RF1.b: Recognize that spoken words are represented in written language by specific sequences of letters. RF1.c: Understand that words are separated by spaces in print. RF1.d: Recognize and name all upper and lowercase letters of the alphabet.	A. Print Concepts RF1.a: Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).	

Domain: Language & Literacy
Strand: Reading Foundational Skills
Standard: RF2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Recognize and react to the sounds of language (e.g., point or make sounds when looking at books; enjoy, and occasionally join in simple songs).	Become aware of the sounds of spoken language (e.g., sing simple and familiar songs with a group or individually, identify environmental sounds such as a doorbell, fire engine, or water running).	Develop phonological awareness by becoming aware of the sounds of spoken language (e.g., begin to supply rhyming words in a familiar poem or song, draw attention to parts of words such as syllables by moving or clapping).	A. Phonological Awareness RF2.a: Recognize rhyming words in spoken language. RF2.b: Identify and isolate individual words in a spoken sentence. RF2.c: Count, pronounce, blend, and segment syllables in spoken words. RF2.d: Blend and segment onsets and rimes of single-syllable spoken words.	A. Phonological Awareness RF2.a: Recognize and produce rhyming words. RF2.b: Count, pronounce, blend, and segment syllables in spoken words. RF2.c: Blend and segment onsets and rimes of single-syllable spoken words. RF2.d: Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.*	A. Phonological Awareness RF2.a: Distinguish long from short vowel sounds in single-syllable words. RF2.b: Orally produce single-syllable words by blending sounds (phonemes). RF2.c: Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. RF2.d: Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).	

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			RF2.e: Isolate and pronounce the initial sound in spoken words. RF2.f: Orally blend and segment individual phonemes in two- to-three phoneme words.	(This does not include CVCs ending with /l/, /r/, or /x/) RF2.e: Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.		

Domain: Language & Literacy
Strand: Reading Foundational Skills
Standard: Know and apply grade- level phonics and word analysis skills in decoding words.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Recognize and react to the sounds of language (e.g., point or make sounds when looking at books, move rhythmically to familiar songs).	Recognize that symbols have corresponding meaning (e.g., use the stop sign in play with a car set, recognize familiar symbols such as hospital or library).	Recognize that symbols have corresponding meaning (e.g., look for and identify familiar logos or signs, find own name card on a carpet square and sit there).	A. Phonics & Word Recognition RF3.a: Recognize that words are made up of letters and their sounds. RF3.b: Demonstrate basic knowledge of one-to-one letter sound correspondences by producing the most frequent sound for some consonants. RF3.c: Recognize name in print as well as some environmental print (symbols/words).	A. Phonics & Word Recognition RF3.a: Demonstrate basic knowledge of one-to-one letter-sound correspondence by producing the primary or many of the most frequent sound for each consonant. RF3.b: Associate the long and short sounds with common spellings (graphemes) for the five major vowels. RF3.c: Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does). RF3.d: Distinguish between similarly spelled words by	A. Phonics & Word Recognition RF3.a: Know the spelling-sound correspondence for common consonant digraphs. RF3.b: Decode regularly spelled one-syllable words. RF3.c: Know final-e and common vowel team conventions for representing long vowel sounds. RF3.d: Use knowledge that every syllable must	A. Phonics & Word Recognition RF3.a: Distinguish long and short vowels when reading regularly spelled one-syllable words. RF3.b: Know sound-spelling correspondences for additional common vowel teams. RF3.c: Decode regularly spelled two-syllable words with long vowels. RF3.d: Decode words with common prefixes

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				identifying the sounds of the letter that differ.	have a vowel sound to determine the number of syllables in a printed word. RF3.e: Decode two-syllable words following basic patterns by breaking the words into syllables RF3.f: Read words with inflectional endings. RF3.g: Recognize and read grade-appropriate irregularly spelled words.	and suffixes. RF3.e: Identify words with inconsistent but common spelling-sound correspondences. RF3.f: Recognize and read grade-appropriate irregularly spelled words.

Domain: Language & Literacy
Strand: Reading Foundational Skills
Standard: Engage with a variety of texts with purpose and understanding. Read with sufficient accuracy and fluency to support comprehension.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases to express himself (e.g., listen quietly to the story, and ask for it to be read again; learn some simple words and phrases from rhymes that are heard repeatedly).	Begin to develop fluency by imitative reading (e.g., ask for the same favorite book over and over again, recite a familiar nursery rhyme, poem or finger play with expression).	Begin to develop fluency by imitative reading (e.g., listen to models of fluent reading, ask to reread a favorite story, remembering the funny ending and telling it as you start to read).	A. Fluency RF4: Engage with a variety of texts (e.g., a variety of structures and/or genres) with purpose and understanding.	A. Fluency RF4: Read emergent-reader texts with purpose and understanding.	A. Fluency RF4: Read with sufficient accuracy and fluency to support comprehension. RF4.a: Read on-level text with purpose and understanding. RF4.b: Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. RF4.c: Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	A. Fluency RF4: Read with sufficient accuracy and fluency to support comprehension. RF4.a: Read on-level text with purpose and understanding. RF4.b: Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. RF4.c: Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Domain: Language & Literacy
Strand: Writing
Standard: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that drawings, paintings and writing are meaningful representations (e.g., pretend to write a letter by scribbling on a paper and "reading" it out loud).	Begin to develop writing skills by recognizing that drawings, paintings and writing are meaningful representations (e.g., begin to control scribbles, perhaps telling caregiver what they say).	A. Text Types and Purposes W1: With modeling and support, use a combination of drawing, dictating, and developmentally appropriate writing to share opinion about an experience or book.	A. Text Types and Purposes W1: Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is…….).	A. Text Types and Purposes W1: Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	A. Text Types and Purposes W1: Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.

Domain: Language & Literacy
Strand: Writing
Standard: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that drawings, paintings and writing are meaningful representations (e.g., paint some lines across the paper with broad strokes and movements, using a few different colors, and tell you that it is a rainbow).	Begin to develop writing skills by recognizing that drawings, paintings and writing are meaningful representations (e.g., pretend to take your order while playing restaurant by scribbling on a pad with a pencil).	A. Text Types and Purposes W2: Use a combination of drawing, dictating, or developmentally appropriate writing to state information on a topic.	A. Text Types and Purposes W2: Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	A. Text Types and Purposes W2: Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	A. Text Types and Purposes W2: Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

Domain: Language & Literacy
Strand: Writing
Standard: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that drawings, paintings and writing are meaningful representations (e.g., intentionally make a mark on a piece of paper).	Begin to develop writing skills by recognizing that drawings, paintings and writing are meaningful representations (e.g., make a picture of self with lines coming out of the bottom and sides of a circle).	A. Text Types & Purposes W3: With modeling and support, use a combination of drawing, dictating, or developmentally appropriate writing to communicate a personal story about a single event and tell about the event in a meaningful sequence.	A. Text Types & Purposes W3: Use combination of drawing, dictating, or writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.	A. Text Types & Purposes W3: Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	A. Text Types & Purposes W3: Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Domain: Language & Literacy
Strand: Writing
Standard: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Production and Distribution of Writing W5: With modeling, guidance, and support from adults, review drawing, dictation or developmentally appropriate writing.	A. Production and Distribution of Writing W5: With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.	A. Production and Distribution of Writing W5: With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	A. Production and Distribution of Writing W5: With guidance and support from adults and peers, focus on a topic and strengthen writing as needed.

Domain: Language & Literacy
Strand: Writing
Standard: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that drawings, paintings and writing are meaningful representations (e.g., make a picture of with lines coming out of the bottom and sides of a circle and tell you that it is him).	Begin to develop writing skills by recognizing that drawings, paintings and writing are meaningful representations (e.g., show a friend his picture on a wall).	A. Production and Distribution of Writing W6: With prompting and support from adults, explore a variety of digital tools to express ideas.	A. Production and Distribution of Writing W6: With guidance and support from adults, explore a variety of digital tools to produce and publish writing including collaboration with peers.	A. Production and Distribution of Writing W6: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	A. Production and Distribution of Writing W6: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Domain: Language & Literacy
Strand: Writing
Standard: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Research to Build and Present Knowledge W7: Participate in shared research and shared writing projects.	A. Research to Build and Present Knowledge W7: Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).	A. Research to Build and Present Knowledge W7: Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions.	A. Research to Build and Present Knowledge W7: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

Domain: Language & Literacy
Strand: Writing
Standard: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Research to Build and Present Knowledge W8: With modeling and support from adult, recall information from experiences or information from provided sources to answer a question.	A. Research to Build and Present Knowledge W8: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	A. Research to Build and Present Knowledge W8: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	A. Research to Build and Present Knowledge W8: Recall information from experiences or gather information from provided sources to answer a question.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Communicate using consistent sounds, words, and gestures (e.g., use single words such as "no" and "bye" appropriately, shake head yes when asked, "Are you ready to go outside?").	Enter into a conversation (e.g., repeat what has just been said, or make up a story to be part of the conversation; interrupt or talk over other people's conversation).	Have more meaningful conversations with peers and adults (e.g., offer own information in a group story or discussion about a visit by the firefighters, talk to a friend or caregiver, an imaginary friend, or the dolls and toys that he is playing with).	A. Comprehension and Collaboration SL1: Participate in collaborative conversations with diverse partners about pre-kindergarten topics and texts with peers and adults in small and larger groups. SL1.a: Follow agreed-upon rules for discussions (e.g., listening to others and taking turns, speaking about the topics and texts under discussion). SL1.b: During scaffolded conversations, continue a conversation through multiple exchanges.	A. Comprehension and Collaboration SL 1: Participate in collaborative conversations with diverse partners about Kindergarten topics and texts with peers and adults in small and larger groups. SL1.a: Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). SL1.b: Continue a conversation through multiple exchanges.	A. Comprehension and Collaboration SL1: Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. SL1.a: Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL1.b: Build on others' talk in conversations by responding to the comments of others through multiple exchanges.	A. Comprehension and Collaboration SL1: Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL1.a: Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). SL1.b: Build on others' talk in conversation by linking their comments to the remarks of others.

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					SL1.c: Ask questions to clear up any confusion about the topics and texts under discussion.	SL1.c: Ask for clarification and further explanation as needed about the topics and texts under discussion.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Show more interest in speech (e.g., respond to one step direction such as "Come to mommy," point to the cat in a book when you say, "Where is the cat?").	Use words and some common rules of speech to express ideas and thoughts (e.g., ask questions about the story as well as naming objects).	Demonstrate active listening skills (e.g., ask questions about what has been heard).	A. Comprehension and Collaboration SL2: Confirm understanding of text read aloud or information presented orally or through other media by asking and answering questions about key details with modeling and support.	A. Comprehension and Collaboration SL2: Confirm understanding of text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	A. Comprehension and Collaboration SL2: Ask and answer questions about key details in a text read aloud or presented orally or through other media.	A. Comprehension and Collaboration SL2: Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Communicate using consistent sounds, words, and gestures (e.g., try to mimic words when prompted, begin to put two words together in a phrase).	Demonstrate active listening strategies (e.g., listen for short periods of time, begin to ask questions).	Show understanding and respond to simple directions and requests (e.g., begin to ask "how" and "why" questions).	A. Comprehension and Collaboration SL3: Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	A. Comprehension and Collaboration SL3: Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	A. Comprehension and Collaboration SL3: Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	A. Comprehension and Collaboration SL3: Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Communicate using consistent sounds, words, and gestures (e.g., start to put words together in phrases such as "ma-ma bye bye").	Use words and some common rules of speech to express ideas and thoughts (e.g., use descriptive language to tell you what he wants).	Demonstrate active listening skills (e.g., retell, and relate to what has been heard).	A. Presentation of Knowledge and Ideas SL4: Describe familiar people, places, things, and events with modeling and support.	A. Presentation of Knowledge and Ideas SL4: Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	A. Presentation of Knowledge and Ideas SL4: Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	A. Presentation of Knowledge and Ideas SL4: Tell a story or recount an experience with appropriate facts and relevant descriptive details, speaking audibly in coherent sentences.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases to express himself (e.g., begin to participate in songs and rhymes by smiling, clapping, or making noise.	Recognize that drawings, paintings and writing are meaningful representations (e.g., paint some lines across the paper with broad strokes and movements, using a few different colors, and tell you that it is a rainbow).	Use writing utensils for scribble and drawings (e.g., begin to draw representations of people and objects).	A. Presentation of Knowledge and Ideas SL5: Add drawings or visual displays to descriptions as desired to provide additional detail.	A. Presentation of Knowledge and Ideas SL5: Add drawings or visual displays to descriptions as desired to provide additional detail.	A. Presentation of Knowledge and Ideas SL5: Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	A. Presentation of Knowledge and Ideas SL5: Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

Domain: Language & Literacy
Strand: Speaking & Listening
Standard: Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Communicate using consistent sounds, words, and gestures (e.g., get upset when adults don't understand what he says, begin to put two words together into a phrase).	Use words and some common rules of speech to express ideas and thoughts (e.g., speak clearly enough to be understood without mumbling or running sounds together).	Use more conventions of speech when speaking (e.g., not pronounce all of his words correctly, but be easily understood most of the time).	A. Presentation of Knowledge and Ideas SL6: With modeling and support, speak audibly and express thoughts, feelings, and ideas clearly.	A. Presentation of Knowledge and Ideas SL6: Speak audibly and express thoughts, feelings, and ideas clearly.	A. Presentation of Knowledge and Ideas SL6: Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 27 for specific expectations).	A. Presentation of Knowledge and Ideas SL6: Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 27 and 28 for specific expectations).

Domain: Language & Literacy
Strand: Language
Standard: Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Start to understand and use common rules of speech (e.g., use simple gestures such as shaking head for "no" or waving "bye bye").	Use words and some common rules of speech to express ideas and thoughts (e.g., use the words I, we, he, and she in sentences, use some uncommon plurals such as "foots" instead of "feet").	Use more conventions of speech when speaking (e.g., use 's' at the end of plurals and 'ed' for past tense, use plurals, pronouns and possessive words such as "my" and "his").	A. Conventions of Standard English L1: Demonstrate beginning understanding of the conventions of standard English grammar and usage when engaged in literacy activities (e.g. Interactive Read Alouds, shared reading, shared writing, developmentally appropriate writing, oral language activities, etc.). L1.a: Print upper and lowercase letters in first name. L1.b: Use frequently occurring nouns and verbs. L1.c: Develop understanding of	A. Conventions of Standard English L1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L1.a: Print many upper and lowercase letters. L1.b: Use frequently occurring nouns and verbs. L1.c: Form regular plural nouns orally	A. Conventions of Standard English L1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L1.a: Print all upper- and lowercase letters. L1.b: Use common, proper, and possessive nouns. L1.c: Use singular and plural nouns	A. Conventions of Standard English L1Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L1.a: Use collective nouns (e.g., group). L1.b: Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish). L1.c: Use reflexive pronouns (e.g.,

			singular and plural nouns (e.g., dog means one dog; dogs means more than one dog). L1.d: Understand and begin to use question words (e.g., interrogatives such as who, what, where, when, why, how). L1.e: Gain exposure to the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with). L1.f: Produce complete sentences in shared language activities.	by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes). L1.d: Understand and use question words (interrogatives) (e.g., who, what where, when, why, how). L1.e: Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with). L1.f: Produce and expand complete sentences in shared language activities.	with matching verbs in basic sentences (e.g., He hops, we hop). L1.d: Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they them their; anyone, everything). L1.e: Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; today I walk home; tomorrow I will walk home). L1.f: Use frequently occurring adjectives.	myself, ourselves). L1.d: Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told). L1.e: Use adjectives and adverbs, and choose between them depending on what is to be modified. L1.f: Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).

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					L1.g: Use frequently occurring conjunctions (e.g., and, but, or, so because). L1.h: Use determiners (e.g., articles, demonstratives). L1.i: Use frequently occurring prepositions (e.g., during, beyond, toward). L1.j: Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentence in response to prompts.	

Domain: Language & Literacy
Strand: Language
Standard: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating (e.g., explore using markers, crayons, chalk to draw and write).	Recognize that drawings, paintings and writing are meaningful representations (e.g., pretend to write a letter by scribbling on a paper and "reading" it out loud).	Begin to develop writing skills by recognizing that drawings, paintings and writing are meaningful representations (e.g., begin to control scribbles, perhaps telling caregiver what they say).	L2 Gain exposure to conventions of standard English capitalization, punctuation, and spelling during shared reading and writing experiences. L2.a Recognize that their name begins with a capital letter. L2.b Demonstrate awareness of name and function of end punctuation (e.g., period, question mark and exclamation point). L2.c Use letter-like shapes, symbols, letters, and words to convey meaning. L2.d Develop fine motor skills necessary to control	L2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L2.a Capitalize the first word in a sentence and the pronoun I. L2.b Recognize and name end punctuation. L2.c Write a letter or letters for most consonant and short-vowel sounds (phonemes). L2.d Spell simple words phonetically, drawing on	L2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L2.a Capitalize dates and names of people. L2.b Use end punctuation for sentences. L2.c Use commas in dates and to separate single words in a series. L2.d Use conventional spelling for words	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L2.a Capitalize holidays, product names, and geographic names. L2.b Use commas in greetings and closings of letters. L2.c Use an apostrophe to form contractions and frequently occurring possessives. L2.d Generalize learned spelling patterns when

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			and sustain handwriting.	knowledge of sound-letter relationships. L2.e Produce handwriting that is legible to the audience.	with common spelling patterns and for frequently occurring irregular words L2.e Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	writing words (e.g., cage badge; boy boil). L2.e Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Domain: Language & Literacy
Strand: Language
Standard: Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
		L3: (Begins in grade 2.)	L3: (Begins in grade 2.)	L3: (Begins in grade 2.)	L3: (Begins in grade 2.)	A. Knowledge of Language L3: Use knowledge of language and its conventions when writing, speaking, reading, or listening. L3.a: Compare formal and informal uses of English.

Domain: Language & Literacy
Strand: Language
Standard: Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases to express himself (e.g., learn new words and phrases from those frequently used by the adults and children around him).	Develop vocabulary, language usage and some conventions of speech (e.g., name an increasing number of objects in the books read, and describe actions, repeat words heard in the environment).	Expand vocabulary and language usage (e.g., use words to describe the purpose and function of objects, learn the names of new objects).	A. Vocabulary Acquisition and Use L4: Determine or clarify the meaning of unknown words and phrases based on pre-kindergarten reading and content.	A. Vocabulary Acquisition and Use L4: Determine or clarify the meaning of unknown and multiple meaning words and phrases based on kindergarten reading and content. L4.a: Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a verb and learning the verb to duck). L4.b: Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an	A. Vocabulary Acquisition and Use L4: Determiner or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and context, choosing flexibly from an array of strategies. L4.a: Use sentence-level context as a clue to the meaning of a word or phrase. L4.b: Use frequently occurring affixes as a clue to the meaning of a word.	A. Vocabulary Acquisition and Use L4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies. L4.a: Use sentence-level context as a clue to the meaning of a word or phrase. L4.b: Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).

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				unknown word.	L4.c: Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).	L4.c: Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional). L4.d: Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark). L4.e: Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.

Domain: Language & Literacy
Strand: Language
Standard: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			L5: With modeling and support from adults, explore word relationships and nuances in word meanings.	L5: With guidance and support from adults, explore word relationships and nuances in word meanings.	L5: With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.	L5: Demonstrate understanding of word relationships and nuances in word meanings.
			L5.a: With modeling and support, sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.	L5.a: Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.	L5.a: Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.	L5.a: Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
			L5.b: With modeling and support, demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).	L5.b: Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).	L5.b: Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).	L5.b: Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).
			L5.c: Identify real-life connections between words and their use (e.g., note objects in classroom that are small).	L5.c: Identify real-life connections between words and their use (e.g., note places at school that are colorful).	L5.c: Identify real-life connections between words and their use (e.g., note places at home that are cozy).	

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				L5.d: Distinguish shades of meaning among verbs describing the same general action (e.g., walk, strut, prance) by acting out meanings.	L5.d: Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	

Domain: Language & Literacy
Strand: Language
Standard: Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Demonstrate increasing vocabulary and comprehension by using words and phrases to express himself (e.g., learn new words and phrases from those frequently used by the adults and children around him).	Develop vocabulary, language usage and some conventions of speech (e.g., name an increasing number of objects in the books read, and describe actions, repeat words heard in the environment).	Expand vocabulary and language usage (e.g., use words to describe the purpose and function of objects, learn the names of new objects).	L6: Use words and phrases acquired through conversation, being read to, and responding to text.	L6: Use words and phrases acquired through conversation, reading and being read to, and responding to text.	L6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).	L6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

Domain: Mathematics
Strand: Counting and Cardinality
Standard: Know number names and the count sequence.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Show beginning interest in quantity and number relationships (e.g., will give two crackers when asked, "Can I have two crackers?").	Show beginning interest in numerals and counting (e.g., recognize and name the numerals in a counting book).	A. Know Number Names and the Count Sequence PK.CC.1: Count verbally to ten by ones. PK.CC.2: Recognize the concept of just after or just before a given number in the counting sequence up to ten. PK.CC.3: Identify written numerals 0-10.	A. Know Number Names and the Count Sequence K.CC.1: Count to 100 by ones and by tens. K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at one). K.CC.3: Write numbers from zero to twenty. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).		

Domain: Mathematics
Strand: Counting and Cardinality
Standard: Count to tell the number of objects.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Show beginning interest in quantity and number relationships (e.g., complain that a friend has more orange slices than he does).	Show beginning interest in numerals and counting (e.g., proudly show that he can count three objects, count the name cards to see if there is room for him in a given play center where only four children may play at a time).	A. Count to Tell the Number of Objects PK.CC4: Understand the relationship between numbers and quantities to five, then to ten; connect counting to cardinality. PK.CC.4a: When counting objects, say the number names in the standard order, pairing each object with one and only one number name. PK.CC.4b: Recognize that the last number name said tells the number of objects counted.	A. Count to Tell the Number of Objects K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.4a: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. K.CC.4b: Understand that the last number name said tells the number of objects counted. The number of objects is the same		

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				regardless of their arrangement or the order in which they were counted.		
			PK.CC.4c: Begin to recognize that each successive number name refers to a quantity that is one larger.	K.CC.4c: Understand that each successive number name refers to a quantity that is one larger. Understand that each successive number name refers to a quantity that is one larger.		
			PK.CC.5: Represent a number (0-5, then to ten) by producing a set of objects with concrete materials, pictures, and/or numerals (with 0 representing a count of no objects).	K.CC.5: Count to answer "how many?" questions about as many as twenty things arranged in a line, a rectangular array, or a circle, or as many as ten things in a scattered configuration; given a number from 1-20, count out that many objects.		
			PK.CC.6: Recognize the number of objects in a set without counting (Subitizing). (Use	K.CC.6: Identify whether the number of objects in one group is greater than, less		

			one to five objects). A. Compare Quantities PK.CC.7: Explore relationships by comparing groups of objects up to five and then ten. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (e.g., by using matching and counting strategies). (Include groups with up to five objects).	than, or equal to the number of objects in another group (e.g., by using matching and counting strategies). (Include groups with up to ten objects). A. Compare Numbers K.CC.7: Compare two numbers between one and ten presented as written numerals.		

Domain: Mathematics
Strand: Operations & Algebraic Thinking
Standard: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
		Show interest in quantity, measuring and number relationships (e.g., sing "Five Little Monkeys jumping on the Bed" and know that the next number is one less than the one before).	A. Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From PK.OA.1: Explore addition and subtraction with objects, fingers, mental images, drawings1, sounds (e.g., claps), acting out situations, or verbal explanations (up to five).	A. Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, or verbal explanations, expressions, or equations.	A. Represent and Solve Problems Involving Addition and Subtraction 1.OA.1: Use addition and subtraction within twenty to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	A. Represent and Solve Problems Involving Addition and Subtraction 2.OA.1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings, and equations with a symbol for the unknown number to represent the problem. A. Add and Subtract Within Twenty

			PK.OA.2: Decompose quantity (less than or equal to five) into pairs in more than one way (e.g., by using objects or drawings).	K.OA.2: Solve addition and subtraction word problems, and add and subtract within ten (e.g., by using objects or drawings to represent the problem).	1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to twenty (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	2.OA.2: Fluently add and subtract within twenty using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
					A. Understand and Apply Properties of Operations and Relationship Between Addition and Subtraction	A. Work with Equal Groups of Objects to Gain Foundations for Multiplication
			PK.OA.3: For any given quantity from zero to five, use objects or drawings to find the quantity that must be added to make five.	K.OA.3: Decompose numbers less than or equal to ten into pairs in more than one way, e.g., by using objects or drawing, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).	1.OA.3: Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties). *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition) To add 2*	2.OA.3: Determine whether a group of objects (up to twenty has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

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					+ 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10, which equals 12. (Associative property of addition.)	
				K.OA.4: For any number from one to nine, find the number that makes ten when added to the given number (e.g., by using objects or drawings and record the answer with a drawing or equation).	1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* A. Add and Subtract Within Twenty	2.OA.4: Use addition to find the total number of objects arranged in rectangular arrays with up to five rows and up to five columns; write an equation to express the total as a sum of equal addends.
				K.OA.5: Fluently add and subtract within five.	1.OA.5: Relate counting to addition and subtraction (e.g., by counting on two to add two). 1.OA.6: Add and subtract within twenty, demonstrating fluency for addition and subtraction within ten. Use	

					strategies such as counting on, making ten (e.g. 8 + 6 = 8 + 2 + 4, which leads to 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1, which leads to 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1, which equals 13). A. Work with addition and subtraction equations. 1.OA.7: Understand the meaning of the equal sign, and determine if equations involving	

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					addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* 1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the question true in each of the equations 8 + ? = 11, 5 = ? - 3, 6 + 6 = ?.*	

Domain: Mathematics
Strand: Number and Operations in Base Ten
Standard: Work with numbers to gain foundations for place value.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Work with Numbers 0-10 to Gain Foundations for Place Value PK.NBT.1: Investigate the relationship between ten ones and ten.	A. Work with Numbers 11-19 to Gain Foundations for Place Value K.NBT.1: Compose and decompose numbers from elven to nineteen into ten ones and some further ones (e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation - such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	A. Extend the Counting Sequence 1.NBT.1: Count to 120 starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	

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					A. Understand Place Value 1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. 1.NBT.2a: Understand the following as a special case: 10 can be thought of as a bundle of ten ones -- called a "ten." 1.NBT.2b: Understand the following as a special case: The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	A. Understand Place Value 2.NBT.1: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. 2.NBT.1a: Understand the following as a special case: 100 can be thought of as a bundle of ten tens -- called a "hundred." 2.NBT.1b: Understand the following as a special case: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and zero tens and zero ones).

					1.NBT.2c: Understand the following as a special case: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >,=, and <. A. Use Place Value Understanding and Properties of Operations to Add and Subtract. 1.NBT.4: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit	2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s. 2.NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. 2.NBT.4: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols

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					number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. 1.NBT.5: Given a two-digit number, mentally find ten more or ten less than the number, without having to count; explain the reasoning used.	to record the results of comparisons. A. Use Place Value Understanding and Properties of Operations to Add and Subtract 2.NBT.5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition

						and subtraction. 2.NBT.6: Add up to four two-digit numbers using strategies based on place value, properties of operations.
					1.NBT.6: Subtract multiples of ten in the range of 10-90 from multiples of ten in the range of 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	2.NBT.7: Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written

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						method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds 2.NBT.8: Mentally add ten or 100 to a given number 100-900, and mentally subtract ten or 100 from a given number 100-900. 2.NBT.9: Explain why addition and subtraction strategies work, using place value and the properties of operations.

Domain: Mathematics
Strand: Measurement & Data
Standard: Describe and compare measureable attributes.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Show interest in quantity and number relationships (e.g., fill large and small containers with sand or water).	Show interest in quantity, measuring and number relationships (e.g., fill a balance scale with beads, making one side go down, then the other, tell a friend that he is taller than the tower he has built).	A. Describe and Compare Measureable Attributes PK.MD.1: Describe measurable attributes of objects, such as length or weight. PK.MD.2: Directly compare two objects with a measurable attribute in common, using words such as longer/shorter; heavier/lighter; or taller/shorter.	A. Describe and Compare Measureable Attributes K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has "more of"/ "less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	A. Measure Lengths Indirectly and by Iterating Length Units 1.MD.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object. 1.MD.2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts	A. Measure and Estimate Lengths in Standard Units 2.MD.1: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.MD.2: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

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					where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	
			A. Sort Objects into Categories and Compare Quantities	A. Classify Objects and Count the Number of Objects in Each Category	A. Tell and Write Time	
			PK.MD.3: Sort objects into self-selected and given categories.	K.MD.3: Classify objects into given categories; count the number of objects in each category and sort the categories by count (Limit category counts to be less than or equal to 10.).	1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.	2.MD.3: Estimate lengths using units of inches, feet, centimeters, and meters.
					A. Represent and Interpret Data	
			PK.MD.4: Compare categories using words such as more or same.		1.MD.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category,	2.MD.4: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

					and how many more or less are in one category than in another.	A. Relate Addition and Subtraction to Length 2.MD.5: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units (e.g., by using drawings - such as drawings of rulers and equations with a symbol for the unknown number to represent the problem. 2.MD.6: Represent whole numbers as lengths from zero on a number line diagram with equally spaced points corresponding to the number 0, 1, 2, …, and represent whole-number sums and

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						differences within 100 on a number line diagram. A. Work with Time and Money. 2.MD.7: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. 2.MD.8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using "$" and "¢" symbols appropriately. Example: If you have two dimes and three pennies, how many cents do you have? 2.MD.9: Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated

						measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. A. Represent and Interpret Data 2.MD.10: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

Domain: Mathematics
Strand: Geometry
Standard: Identify and describe shapes/reason with shapes and their attributes.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Use objects and toys more purposefully, exploring cause and effect relationships (e.g., put round shapes into the round holes more accurately).	Show interest in concepts, such as matching and sorting according to color, shape and size (e.g., can match the colors and shapes in a matching puzzle).	Show beginning interest in geometry (e.g., make symmetrical designs with shape blocks, find examples of shapes in the environment).	A. Identify and Describe Two-Dimensional Shapes (Circles, Triangles, Rectangles; Including a Square Which is a Special Rectangle) PK.G.1: Match like (congruent and similar) shapes. PK.G.2: Group the shapes by attributes.	A. Identify and Describe Shapes (Squares, Circles, Triangles, Rectangles, Hexagons, Cubes, Cones, Cylinders, and Spheres) K.G.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. K.G.2: Correctly name shapes regardless of their orientations or overall size.	A. Reason with Shapes and Their Attributes 1.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. 1.G.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms,	A. Reason with Shapes and Their Attributes 2.G.1: Recognize and draw shapes having specific attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. 2.G.2: Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

					right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	
			A. Work with Three-Dimensional Shapes to Gain Foundation for Geometric Thinking PK.G.3: Match and sort three-dimensional shapes.	K.G.3: Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").	1.G.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	2.G.3: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

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				A. Analyze, Compare, Create, and Compose Shape		
			PK.G.4: Describe three-dimensional objects using attributes.	K.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices /"corners") and other attributes (e.g., having sides of equal length).		
			PK.G.5: Compose and describe structures using three-dimensional shapes. Descriptions may include shape attributes, relative position, etc.	K.G.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. K.G.6: Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"		

Domain: Social Studies
Strand: Political Science
Standard: Students will understand the historical development and current status of the democratic principles and the development of skills and attitudes necessary to become responsible citizens.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Have beginning understanding of consequences when following routines and recreating familiar events (e.g., participate in creating class rules, accept the consequences of his actions, and say, "I'm sorry" when prompted).	Have beginning understanding of consequences when following routines and recreating familiar events (e.g., try to follow the rules of a simple board game and become frustrated when not understanding why something has changed, help to clean up, saying, "We are a team").	A. The Foundations and Function of Government 1. Identify the importance of rules.	A. The Foundations and Function of Government 1. Identify the importance of rules.	A. The Foundations and Function of Government 1. Explain the importance of rules.	A. The Foundations and Function of Government 1. Explain how rules and laws are made and necessary to maintain order and protect citizens.
Gain in self-control and regulation (e.g., stop hitting another child when you say the child's name, allow another child to use a favored toy).	Show increasing self-regulation (e.g., gain control of emotions with help of trusted adult or comfort item, begin to wait turn for juice or snack).	Have increased self-regulation, following classroom rules and routines and guidance (e.g., manage transitions between activities with a few reminders, use classroom materials respectfully).				

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			2. Identify symbols and practices associated with the United States of America.	2. Identify symbols and practices associated with the United States of America.	2. Identify and discuss the meaning of symbols and practices associated with the United States of America.	2. Explain how democratic skills and attitudes are associated with being a responsible citizen.
			B. Individual and Group Participation in the Political System	B. Individual and Group Participation in the Political System	B. Individual and Group Participation in the Political System	B. Individual and Group Participation in the Political System
			1. Recognize people important to the American political system.	1. Identify people important to the American political system.	1. Identify and describe people important to the American political system.	1. Explain how contributions and events are important to the American political system.
			C. Protecting Rights and Maintaining Order	C. Protecting Rights and Maintaining Order	C. Protecting Rights and Maintaining Order	C. Protecting Rights and Maintaining Order
Rely on trusted adults to feel safe trying new activities (e.g., look to you for reassurance, for example, a word, a smile or a gesture).	Continue to need the adult approval but show more independence (get up from the lunch table after a few bites, following mom as she leaves the room, then returning after knowing what she is doing).	Imitate and try to please familiar adults (e.g., pick up own trash after seeing the task modeled by a caregiver, pretend to wash the dishes and put them away in places where the teacher has shown where they belong).	1. Identify the roles, rights, and responsibilities of being a member of the family and school.	1. Describe the roles, rights, and responsibilities of being a member of the family and school.	1. Describe the rights and responsibilities of being a participating member of the family, school and neighborhood.	1. Describe the rights and responsibilities of being a participating member of the school and the community.

Domain: Social Studies
Strand: Peoples of the Nation and the World
Standard: Students will understand how people in Maryland, the United States and around the world are alike and different.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Begin to be aware of the feelings of other children (e.g., think that other children would like the same games or food as he does, look sad or worried when another child is in distress and seek comfort from either a caregiver or cuddly toy).	Show more awareness of the feelings of another child (e.g., feel and express remorse by saying "I sorry" after accidentally knocking another child down, comfort another child who may be upset by patting or hugging the child).	Be able to better understand the feelings of other children (e.g., share a toy car with a child who cries because of not having one, watch other children to see how they react).	A. Elements of Culture 1. Identify themselves as individuals and members of families that have the same human needs as others. B. Cultural Diffusion C. Conflict and Compromise	A. Elements of Culture 1. Identify similarities and differences in people's characteristics, habits, and living patterns to describe how they meet the same human needs. B. Cultural Diffusion C. Conflict and Compromise	A. Elements of Culture 1. Observe and describe ways that people of different Cultural backgrounds meet human needs and contribute to the community. B. Cultural Diffusion 1. Recognize that individuals and groups share and borrow from other cultures. C. Conflict and Compromise	A. Elements of Culture 1. Analyze elements of two different cultures and how each meets their human needs and contributes to the community. B. Cultural Diffusion 1. Explain that individuals and groups share and borrow from other cultures to form a community. C. Conflict, Cooperation and Compromise
Interact with other children (e.g., choose to play in the same area as another child, offer a toy to another	Play alongside other children (e.g., need adult help to resolve conflicts, have short periods of play with other	Participate, with help, in the group life of the class (e.g., help to clean up after hearing the signal and being	1. Identify how groups of people interact.	1. Demonstrate how groups of people interact.	1. Explain how groups of people interact.	1. Analyze ways in which people interact.

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child, but show distress when he takes it).	children, but mostly play beside them).	encouraged by you, join in group games such as playing "Farmer in the Dell").				

Domain: Social Studies
Strand: Geography
Standard: Students will use geographic concepts and processes to understand location and its relationship to human activities.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Using Geographic Tools 1. Recognize that a globe and maps are used to help people locate places. B. Geographic Characteristics of Places and Regions 1. Recognize that places in the immediate environment have specific physical and human-made features. C. Movement of People, Goods and Ideas 1. Identify the role of transportation in the community.	A. Using Geographic Tools 1. Identify and describe how a globe and maps can be used to help people locate places. B. Geographic Characteristics of Places and Regions 1. Describe places in the immediate environment Using natural/ physical and human-made features. C. Movement of People, Goods and Ideas 1. Describe how transportation and communication link people and places.	1. Using Geographic Tools 1. Use geographic tools to locate and describe places on Earth. B. Geographic Characteristics of Places and Regions 1. Describe places in the environment using geographic characteristics. C. Movement of People, Goods and Ideas 1. Explain how transportation and communication link people and places by the movement of goods, messages,	A. Using Geographic Tools 1. Use geographic tools to locate and describe places on Earth. B. Geographic Characteristics of Places and Regions 1. Classify places and regions in an environment using geographic characteristics. C. Movement of People, Goods and Ideas 1. Explain how transportation and communication link places by the movement of people, goods, and ideas.

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		Explore more complex situations and concepts, beginning to understand some people's jobs and care for the environment.	D. Modifying and Adapting to the Environment 1. Describe how people adapt to their immediate environment.	D. Modifying and Adapting to the Environment 1. Describe how people adapt to and modify their immediate environment.	and people. D. Modifying and Adapting to the Environment 1. Explain how people modify, protect, and adapt to their environment.	D. Modifying and Adapting to the Environment 1. Explain how people modify, protect, and adapt to their environment.

Domain: Social Studies
Strand: Economics
Standard: Students will identify the economic principles and processes that are helpful to producers and consumers when making good decisions.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Scarcity and Economic Decision-Making 1. Recognize that people have to make choices because of unlimited economic wants. 2. Identify that materials/resources are used to make products. 3. Explain how technology affects the way people live, work, and play. B. Economic Systems and the Role of Government in the Economy 1. Identify types of local markets.	A. Scarcity and Economic Decision-Making 1. Describe choices people make because of unlimited economic wants. 2. Identify that resources are used to make products. 3. Explain how technology affects the way people live, work, and play. B. Economic Systems and the Role of Government in the Economy 1. Identify types of local markets.	A. Scarcity and Economic Decision-making 1. Describe economic choices people make about goods and services. 2. Describe the production process. 3. Explain how technology affects the way people live, work, and play. B. Economic Systems and the Role of Government in the Economy 1. Describe types of markets in the community.	A. Scarcity and Economic Decision-Making 1. Explain why people have to make economic choices about goods and services. 2. Explain the production process. 3. Examine how technology affects the way people live, work and play. B. Economic Systems and the Role of Government in the Economy 1. Describe different types of markets.

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			2. (Indicator begins in Grade 3) 2. Identify how goods are acquired.	2. (Indicator begins in Grade 3) 2. Describe how goods are acquired.	2. (Indicator begins in Grade 3) 2. Describe how goods and services are acquired.	2. (Indicator begins in Grade 3) 2. Describe how consumers acquire goods and Services.

Domain: Social Studies
Strand: History
Standard: Students will use historical thinking skills to understand how individuals and events have changed society over time.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Change Over Time 1. Distinguish among past, present, and future time.	A. Change Over Time 1. Distinguish among past, present, and future time. 2. Compare daily life and objects of today and long ago.	A. Individuals and Societies Change Over Time 1. Examine differences between past and present time. 2. Compare people and objects of today and long ago.	A. Individuals and Societies Change Over Time 1. Examine differences between past and present time. 2. Describe people, places and artifacts of today and long ago.

Domain: Social Studies
Strand: Social Studies Skills and Processes
Standard: Students shall use reading, writing, and thinking processes and skills to gain knowledge and understanding of political, historical, and current events using chronological and spatial thinking, economic reasoning, and historical interpretation, by framing and evaluating questions from primary and secondary sources.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Learn to Read and Construct Meaning about Social Studies 1. Develop and apply social studies vocabulary through exposure to a variety of text and portions of text. 2. Use strategies to prepare for reading (before reading.) 3. Use strategies to monitor understanding and derive meaning from text and portions of text (during reading). 4. Use strategies to demonstrate understanding of the text (after reading).	A. Learn to Read and Construct Meaning about Social Studies 1. Develop and apply social studies vocabulary through exposure to a variety of text and portions of text. 2. Use strategies to prepare for reading (before reading). 3. Use strategies to monitor understanding and derive meaning from text and portions of text (during reading). 4. Use strategies to demonstrate understanding of the text (after reading).	A. Learn to Read and Construct Meaning about Social Studies 1. Develop and apply social studies vocabulary through exposure to a variety of text and portions of text. 2. Use strategies to prepare for reading (before reading). 3. Use strategies to monitor understanding and derive meaning from text and portions of text (during reading). 4. Use strategies to demonstrate understanding of the text (after reading).	A. Learn to Read and Construct Meaning about Social Studies 1. Develop and apply social studies vocabulary through exposure to a variety of text and portions of text. 2. Use strategies to prepare for reading (before reading). 3. Use strategies to monitor understanding and derive meaning from text and portions of text (during reading). 4. Use strategies to demonstrate understanding of the text (after reading).

			B. Learn to Write and Communicate Social Studies Understandings 1. Compose oral, written, and visual presentations that express personal ideas, inform, and persuade. 2. Locate, retrieve, and use information from various sources to accomplish a purpose. C. Ask Social Studies Questions 1. Identify a topic that requires further study. 2. Identify a situation or problem that requires study. D. Acquire Social Studies Information 1. Identify primary and secondary sources of	B. Learn to Write and Communicate Social Studies Understandings 1. Compose oral, written, and visual presentations that express personal ideas, inform, and persuade. 2. Locate, retrieve, and use information from various sources to accomplish a purpose. C. Ask Social Studies Questions 1. Identify a topic that requires further study. 2. Identify a situation or problem that requires study. D. Acquire Social Studies Information 1. Identify primary and secondary sources of	B. Learn to Write and Communicate Social Studies Understandings 1. Compose oral, written, and visual presentations that express personal ideas, inform, and persuade. 2. Locate, retrieve, and use information from various sources to accomplish a purpose. C. Ask Social Studies Questions 1. Identify a topic that requires further study. 2. Identify a situation or problem that requires study. D. Acquire Social Studies Information 1. Identify primary and secondary sources of	B. Learn to Write and Communicate Social Studies Understandings 1. Compose oral, written, and visual presentations that express personal ideas, inform, and persuade. 2. Locate, retrieve, and use information from various sources to accomplish a purpose. C. Ask Social Studies Questions 1. Identify a topic that requires further study. 2. Identify a situation or problem that requires study. D. Acquire Social Studies Information 1. Identify primary and secondary sources of

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			information that relate to the topic/situation/ problem being studied. 2. Engage in field work that relates to the topic/ situation/ problem being studied. E. Organize Social Studies Information 1. Organize information from non-print sources. 2. Organize information from print sources. F. Analyze Social Studies Information 1. Interpret information from secondary sources including pictures, graphics, maps, atlases, and timelines. G. Answer Social Studies Questions	information that relate to the topic/situation/ problem being studied. 2. Engage in field work that relates to the topic/ situation/ problem being studied. E. Organize Social Studies Information 1. Organize information from non-print sources. 2. Organize information from print sources. F. Analyze Social Studies Information 1. Interpret information from secondary sources including pictures, graphics, maps, atlases, and timelines. G. Answer Social Studies Questions	information that relate to the topic/situation/ problem being studied. 2. Engage in field work that relates to the topic/ situation/ problem being studied. E. Organize Social Studies Information 1. Organize information from non-print sources. 2. Organize information from print sources. F. Analyze Social Studies Information 1. Interpret information from secondary sources including pictures, graphics, maps, atlases, and timelines. G. Answer Social Studies Questions	information that relate to the topic/situation/ problem being studied. 2. Engage in field work that relates to the topic/ situation/ problem being studied. E. Organize Social Studies Information 1. Organize information from non-print sources. 2. Organize information from print sources. F. Analyze Social Studies Information 1. Interpret information from secondary sources including pictures, graphics, maps, atlases, and timelines. G. Answer Social Studies Questions

			1. Describe how the community has changed over time and how people have contributed to its change, drawing from maps, photographs, newspapers, and other sources.	1. Describe how the community has changed over time and how people have contributed to its change, drawing from maps, photographs, newspapers, and other sources.	1. Describe how the community has changed over time and how people have contributed to its change, drawing from maps, photographs, newspapers, and other sources.	1. Describe how the community has changed over time and how people have contributed to its change, drawing from maps, photographs, newspapers, and other sources.

Domain: Science
Strand: Skills & Processes
Standard: Students will demonstrate the thinking and acting inherent in the practice of science.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Use his senses to investigate the world around him, including solving problems (e.g., dump and fill objects, stack and knock down big blocks, push and pull a wagon, watching the wheels turn when trying different tactics to move it).	Explore new ways to do things (e.g., use a spoon to dig in the garden, try to move the large toy car on the playground by pushing it, but then decide to try pulling it instead).	Use scientific thinking as well as his senses to discover the world around him, and make comparisons between objects (e.g., ask questions about everything he sees, put the modeling clay in water to see what happens).	A. Constructing Knowledge 1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out. B. Applying Evidence and Reasoning	A. Constructing Knowledge 1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out. B. Applying Evidence and Reasoning	A. Constructing Knowledge 1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out. B. Applying Evidence and Reasoning	A. Constructing Knowledge 1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out. B. Applying Evidence and Reasoning
Use objects and toys more purposefully, exploring cause and effect relationships (e.g., roll a ball back and forth with an adult). Look at the correct picture or object when it is named (e.g., identify objects, body parts, and people).	Seek information through observation, exploration and descriptive investigations (e.g., use senses to observe and gather information, want to pick up interesting things found on a walk, use tools for investigation).	Seek information through observation, exploration and descriptive investigations with simple science tools (e.g., ask lots of "why" questions, use tools such as magnifying glass, balance scale and measuring cups for investigation, guess that a nut is inside an acorn, and	1. People are more likely to believe your ideas if you can give good reasons for them. C. Communicating Scientific Information 1. Ask, "How do you know?" in appropriate situations and attempt reasonable answers when others	1. People are more likely to believe your ideas if you can give good reasons for them. C. Communicating Scientific Information 1. Ask, "How do you know?" in appropriate situations and attempt reasonable answers when	1. People are more likely to believe your ideas if you can give good reasons for them. C. Communicating Scientific Information 1. Ask, "How do you know?" in appropriate situations and attempt reasonable answers when	1. People are more likely to believe your ideas if you can give good reasons for them. C. Communicating Scientific Information 1. Ask, "How do you know?" in appropriate situations and attempt reasonable answers when

Use object and toys more purposefully.	Show interest in quantity and number relationships (fill large and small containers with sand or water).	confirm that prediction by breaking, with assistance, the acorn to find out). Use more advanced problem solving skills, testing his understanding and ideas in real situations (e.g., get a toy broom and use the handle to get a ball out from under a shelf where it has rolled). Show interest in quantity, measuring and number relationships (e.g., fill a balance scale with beads, making one side go down, then the other).	ask them the same question. D. Technology 1. Design and make things with simple tools and a variety of materials. 2. Practice identifying the parts of things and how one part connects to and affects another. 3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.	others ask them the same question. D. Technology 1. Design and make things with simple tools and a variety of materials. 2. Practice identifying the parts of things and how one part connects to and affects another. 3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.	others ask them the same question. D. Technology 1. Design and make things with simple tools and a variety of materials. 2. Practice identifying the parts of things and how one part connects to and affects another. 3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.	others ask them the same question. D. Technology 1. Design and make things with simple tools and a variety of materials. 2. Practice identifying the parts of things and how one part connects to and affects another. 3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.

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	Show interest in concepts, such as matching and sorting according to color, shape and size (e.g., group items of similar colors, compare the color of his toy car to that of another child). Use imagination, memory and reasoning to plan and make things happen (e.g., put a cushion sideways on the couch and pretend to be daddy driving to work, tell his caregiver that he is going to be a firefighter before going to the dramatic play area).	Show interest in concepts such as matching and sorting according to a single criteria (e.g., help to put away the utensils, matching the large spoons with the other large spoons). Use prior knowledge and imagination to think through what he wants to play (e.g., use the blocks as garages and houses that the cars and trucks drive to, use the Unifix Cubes with several friends to try to make a rod that reaches across the room).				

Domain: Science
Strand: Earth/Space
Standard: Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces and cycles, transfer of energy) of the environment, Earth, and the universe that occur over time.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Materials and Processes That Shape A Planet	A. Materials and Processes That Shape A Planet	A. Materials and Processes That Shape A Planet	A. Materials and Processes That Shape A Planet
				1. Investigate objects and materials in the environment.		1. Describe and compare properties of a variety of Earth materials.
			B. Earth History	B. Earth History	B. Earth History	B. Earth History
			C. Plate Tectonics	C. Plate Tectonics	C. Plate Tectonics	C. Plate Tectonics
			D. Astronomy	D. Astronomy	D. Astronomy	D. Astronomy
				1. Observe celestial objects that are visible in the day and night sky.	2. Recognize that there is a relationship between the sun and the earth.	1. Observe and describe changes over time in the properties, location, and motion of celestial objects.
			E. Interactions of Hydrosphere and Atmosphere	E. Interactions of Hydrosphere and Atmosphere	E. Interactions of Hydrosphere and Atmosphere	E. Interactions of Hydrosphere and Atmosphere
					1. Describe observable changes in water on the surface of the Earth.	1. Recognize and describe that the surface of Earth is more than half covered with water.

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			2. Describe the weather using observations. A. Diversity of Life 1. Observe a variety of familiar plants and animals to describe how they are alike and how they are different. B. Cells	2. Investigate and gather information about changes in weather. A. Diversity of Life 1. Observe a variety of familiar animals and plants (perhaps on the school grounds, in the neighborhood, and at home) to discover similarities and differences among them. 2. Gather information and direct evidence that humans have external features that can differ in size, shape, etc., but that they are more like other humans than like other animals. B. Cells	2. Describe that some events in nature have repeating patterns. A. Diversity of Life 1. Compare and explain how external features of plants and animals help them survive in different environments. B. Cells 1. Describe evidence from investigations that living things are made of parts too	. A. Diversity of Life B. Cells

					small to be seen with the unaided eye. 2. Provide evidence that all organisms are made of parts that help them carry out the basic functions of life.	
		Begin to recognize his own physical and family characteristics and those of others (e.g., count how many boys are in the group he is playing with, go to the table when the teacher says that everyone who has brown hair may go).	C. Genetics 1. Observe, describe and compare different kinds of animals and their offspring. D. Evolution	C. Genetics 1. Observe, describe and compare the life cycles of different kinds of animals and plants. D. Evolution 1. Recognize that living things are found almost everywhere in the world and that there are somewhat different kinds of living things in different places.	C. Genetics 1. Explain that there are differences among individuals in any population. 2. Recognize that all living things have offspring, usually with two parents involved. D. Evolution	C. Genetics 1. Explain that there are identifiable stages in the life cycles (growth, reproduction, and death) of plants and animals. D. Evolution 1. Observe and describe examples of variation (differences) among individuals of one kind within a population.

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			E. Flow of Matter and Energy F. Ecology	E. Flow of Matter and Energy 1. Develop an awareness of the relationship of features of living things and their ability to satisfy basic needs that support their growth and survival. F. Ecology 1. Investigate a variety of familiar places where plants and animal live to describe the place and the living things found there.	E. Flow of Matter and Energy 1. Describe some of the ways in which animals depend on plants and on each other. F. Ecology	E. Flow of Matter and Energy F. Ecology 1. Explain that organisms can grow and survive in many very different habitats.

Domain: Science
Strand: Chemistry
Standard: Students will use scientific skills and processes to explain the composition, structure, and interactions of matter in order to support the predictability of structure and energy transformations.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
		Use scientific thinking as well as his senses to discover the world around him, and make comparisons between objects (e.g., watch the fish and tell that he likes the biggest one best).	A. Structure of Matter 1. Use evidence from investigations to describe the observable properties of a variety of objects. B. Conservation of Matter C. States of Matter D. Physical and Chemical Changes	A. Structure of Matter 1. Compare the observable properties of a variety of objects and the materials they are made of using evidence from investigations. B. Conservation of Matter C. States of Matter D. Physical and Chemical Changes	A. Structure of Matter B. Conservation of Matter C. States of Matter D. Physical and Chemical Changes	A. Structure of Matter 1. Cite evidence from investigations that most things are made of parts. B. Conservation of Matter 1. Provide evidence from investigations that things can be done to materials to change some of their properties. C. States of Matter D. Physical and Chemical Changes 1. Provide evidence from investigations to identify

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						processes that can be used to change physical properties of materials.

Domain: Science
Strand: Physics
Standard: Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Mechanics	A. Mechanics 1. Compare the different ways objects move. 2. Explain that there must be a cause for changes in the motion of an object.	A. Mechanics	A. Mechanics
			B. Thermodynamics	B. Thermodynamics 1. Describe that sunlight warms the land, air, and water using observations and age appropriate tools.	B. Thermodynamics	B. Thermodynamics 1. Identify and describe ways in which heat can be produced.
			C. Electricity and Magnetism	C. Electricity and Magnetism 3. Observe and gather information from the explorations to describe how magnets affect some objects.	C. Electricity and Magnetism 3. Describe the effect magnets have on a variety of objects.	C. Electricity and Magnetism 1. Identify and describe the sources and uses of electricity in daily life.

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			D. Wave Interactions	D. Wave Interactions 2. Observe and describe that sound is produced by vibrating objects.	D. Wave Interactions.	D. Wave Interactions

Domain: Science
Strand: Environmental Science
Standard: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Natural Resources and Human Needs	A. Natural Resources and Human Needs	A. Natural Resources and Human Needs	A. Natural Resources and Human Needs 1. Recognize and explain how Earth's natural resources from the natural environment are used to meet human needs.
			B. Environmental Issues	B. Environmental Issues 1. Identify aspects of the environment that are made by humans and those that are not made by humans.	B. Environmental Issues 1. Recognize that caring about the environment is an important human activity.	B. Environmental Issues 1. Recognize and describe that the activities of individuals or groups of individuals can affect the environment.

Domain: Health
Strand: Safety & Injury Prevention
Standard: Students will demonstrate the ability to apply prevention and intervention knowledge, skills, and processes to promote safe living in the home, school, and community.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Rely on trusted adults to feel safe trying new activities (e.g., show with words and gestures that he wants a trusted adult to be near him).	Have beginning understanding of consequences when following routines and recreating familiar events (e.g., participate in creating class rules).	Have beginning understanding of consequences when following routines and recreating familiar events (e.g., participate in creating rules for the class).	A. Emergencies 1. Recognize how to respond appropriately to emergency situations. B. Safety Rules & Procedures	A. Emergencies 1. Recognize how to respond appropriately to emergency situations. B. Safety Rules & Procedures 1. Identify ways to be safe when outdoors. 2. Identify actions to stay safe from fires. 3. Identify ways to be safe in a car. 4. Tell what to know when lost (separated).	A. Emergencies 1. Describe how to respond appropriately to emergency situations. B. Safety Rules & Procedures 1. Identify ways to be safe when outdoors. 5. Identify ways to stay safe around animals. C. Harassment	A. Emergencies 1. Demonstrate the ability to respond appropriately to emergency situations. B. Safety Rules & Procedures 1. Identify ways to stay safe outdoors.

					1 Identify the characteristics of a bully. 2. Define and identify telling and tattling. D. Abuse & Assault 1. Identify ways to stay safe from strangers.	D. Abuse & Assault 1. Identify actions to stay safe from strangers. 2. Describe actions to stay safe around familiar people.

Domain: Health
Strand: Nutrition & Fitness
Standard: Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Responses to Food 1. Identify the relationship between food and the senses. E. Food & Health 1. Recognize the relationship between food and health.	A. Responses to Food 1. Identify the relationship between food and the senses. B. Food Production 1. Tell the source of different foods. C. Manners 1. Define proper eating manners. D. Nutrients E. Food & Health 1. Recognize the relationship between food and health.	A. Responses to Food 1. Demonstrate the relationship between food and the senses. B. Food Production C. Manners D. Nutrients E. Food & Health 1. Recognize the relationship between food and health.	A. Responses to Food B. Food Production C. Manners D. Nutrients 1. Define nutrients. E. Food & Health 2. Explain the relationship

				F. Nutrition & Physical Activity 1. Identify food categories.	F. Nutrition & Physical Activity 1. Recognize that foods are categorized into groups.	between personal fitness and a healthy lifestyle. F. Nutrition & Physical Activity 1. Demonstrate that foods are categorized into groups. 2. Identify the Nutrition Facts Label.

Domain: Health
Strand: Personal and Consumer Health
Standard: Students will demonstrate the ability to use consumer knowledge, skills, and strategies to develop sound personal health practices involving the use of health care products, services, and community services.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
				A. Personal Health Maintenance 1. Identify ways to care for your body.	A. Personal Health Maintenance 1. Explain how to improve or maintain personal health. B. Information, Products, and Services 1. Identify health services available in the school. C. Pollution and Personal Health Issues 1. Identify health issues created by pollution.	A. Personal Health Maintenance 1. Explain how to improve or maintain personal health. B. Information, Products and Services 1. Identify health services available in the school. C. Pollution and Personal Health Issues 1. Identify health issues created by pollution.

Domain: Health
Strand: Alcohol, Tobacco, and Other Drugs
Standard: Students will demonstrate the ability to use drug knowledge, decision-making skills, and health enhancing strategies to address, the use, non-use, and abuse of medications, alcohol, tobacco, and other drugs.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
				A. Medicine 1. Identify appropriate uses of medicine.	A. Medicine 1. Identify appropriate uses of medicine. B. Tobacco 1. Identify how tobacco use harms health. C. Alcohol 1. Identify the physical effects of using alcohol.	A. Medicine 1. Identify practices for using medicine safely. B. Tobacco 1. Identify how tobacco use affects health. C. Alcohol 1. Identify the physical consequences of the use of alcohol. E. Drugs and the Law 1. Identify ways to say no to unsafe medicine/drug use.

Domain: Health
Strand: Family Life and Human Sexuality
Standard: Students will demonstrate the ability to use human development knowledge, social skills, and health enhancing strategies to promote positive relationships and health growth and development through the life cycle.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
				A. Family Unit 1. Define a family unit.	A. Family Unit 1. Identify what is special about your family. B. Physical, Mental, and Social Growth 1. Describe the growth process.	A. Family Unit 1. Identify how your family helps you and you help your family. B. Physical, Mental, and Social Growth 1 .Describe the physical, social, mental growth processes.

Domain: Health
Strand: Disease & Prevention
Standard: Students will demonstrate the ability to apply prevention and treatment knowledge, skills, and strategies to reduce susceptibility and manage disease.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Enjoy doing for himself whatever he thinks he can do (e.g., perform at least some skills involved in using the toilet, such as pulling up his own pants afterwards and wash his hands and use a towel to dry them).	Feel more grown up as he accomplishes self-help and housekeeping tasks with reminders (e.g., take of his own toileting needs and wash and dry his own hands).		A. Disease Classification 1. Define disease. B. Prevention Practices 1. Identify ways to reduce risk for becoming sick.	A. Disease Classification B. Prevention Practices 1. Identify basic ways to prevent the spread of germs.	A. Disease Classification 1. Describe disease.

Domain: Physical Education
Strand: Skillfulness
Standard: Students will demonstrate the ability to enhance their performance of a variety of physical skills by developing fundamental movement skills, creating original skill combinations, combining skills effectively in skill themes, and applying skills.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Move constantly, showing increasing large muscle control (e.g., walk more than he crawls and pull a toy behind him as he walks, or push a toy in front of him).	Use his whole body to develop spatial awareness (e.g., walk around a circle holding hands with other children and push himself on riding toys).	Move with confidence and stability, coordinating movements to accomplish simple tasks. (e.g., go over, under, around through on an obstacle course and easily use riding toys, such as tricycles and Big Wheels).	A. Fundamental Movement 1. Show fundamental movement skills. B. Creative Movement 1. Show creative movement. C. Skill Themes 1. Show skill themes.	A. Fundamental Movement 1. Show fundamental movement skills. B. Creative Movement 1. Show creative movement. C. Skill Themes 1. Show skill themes.	A. Fundamental Movement 1. Show fundamental movement skills. B. Creative Movement 1. Show creative movement. C. Skill Themes 1. Show skill themes.	A. Fundamental Movement 1. Show fundamental movement skills. B. Creative Movement 1. Show creative movement. C. Skill Themes 1. Show skill themes.

Domain: Physical Education
Strand: Biomechanical Principles
Standard: Students will demonstrate an ability to use the principles of biomechanics to generate and control force to improve their movement effectiveness and safety.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Perform more complex movements with his arms and legs (e.g., walk more than he crawls and pull a toy behind him as he walks or push a toy in front of him).	Use his whole body to develop spatial awareness (e.g., walk around in a circle holding hands with other children and push himself on riding toys).	Move with confidence and stability, coordinating movements to accomplish simple tasks (e.g., go over, under, around through on an obstacle course and easily use riding toys, such as tricycles and Big Wheels).	A. Effects on Objects 1. Identify ways that people and objects move. B. Balance 1. Identify balance through movement.	A. Effects on Objects 1. Identify ways that people and objects move. B. Balance 1. Identify balance through movement.	A. Effects on Objects 1. Identify ways that people and objects move. B. Balance 1. Identify balance through movement.	A. Effects on Objects 1. Identify ways that people and objects move. B. Balance 1. Identify balance through movement.

Domain: Physical Education
Strand: Motor Learning Principles:
Standard: Students will demonstrate the ability to use motor skill principles to learn and develop proficiency through frequent practice opportunities in which skills are repeatedly performed correctly in a variety of situations.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Appropriate Practices 1. Recognize that skills will develop over time with appropriate practice and use of the correct cues. B. Corrective Feedback 1. Identify the importance of corrective feedback on performance.	A. Appropriate Practices 1. Recognize that skills will develop over time with appropriate practice and use of the correct cues. B. Corrective Feedback 1. Identify the importance of corrective feedback on performance.	A. Appropriate Practices 1. Recognize that skills will develop over time with appropriate practice and use of the correct cues. B. Corrective Feedback 1. Identify the importance of corrective feedback on performance.	A. Appropriate Practices 1. Recognize that skills will develop over time with appropriate practice and use of the correct cues. B. Corrective Feedback 1. Identify the importance of corrective feedback on performance.

Domain: Physical Education
Strand: Exercise Physiology
Standard: Students will demonstrate the ability to use scientific principles to design and participate in a regular, moderate to vigorous physical activity program that contributes to personal health and enhances cognitive and physical performance in a variety of academic, recreational, and life tasks.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Effects of Physical Activity on the Body 1. Identify the effects of physical activity on the body systems. B.FITT Guidelines C. Components of Fitness 1. Identify the components of fitness. D. Benefits of Physical Activity 1. Recognize the benefits of physical activity. E. Nutrition and Physical Activity	A. Effects of Physical Activity on the Body 1. Identify the effects of physical activity on the body systems. B.FITT Guidelines C. Components of Fitness 1. Identify the components of fitness. .D. Benefits of Physical Activity 1. Recognize the benefits of physical activity. E. Nutrition and Physical Activity	A. Effects of Physical Activity on the Body 1. Identify the effects of physical activity on the body systems. B.FITT Guidelines C. Components of Fitness 1. Identify the components of fitness. D. Benefits of Physical Activity 1. Recognize the benefits of physical activity. E. Nutrition and Physical Activity	A. Effects of Physical Activity on the Body 1. Identify the effects of physical activity on the body systems. B.FITT Guidelines 1. Identify components of the FITT guidelines. C. Components of Fitness 1. Identify the components of fitness. D. Benefits of Physical Activity 1. Recognize the benefits of physical activity. E. Nutrition and Physical Activity

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			1. Recognize the relationship between nutrition and physical activity. F. Exercise Adherence 1. Recognize the factors influencing daily physical activity.	1. Recognize the relationship between nutrition and physical activity. F. Exercise Adherence 1. Recognize the factors influencing daily physical activity.	1. Recognize the relationship between nutrition and physical activity. F. Exercise Adherence 1. Recognize the factors influencing daily physical activity.	1. Recognize the relationship between nutrition and physical activity. F. Exercise Adherence 1. Recognize the factors influencing daily physical activity.

Domain: Physical Education
Strand: Physical Activity
Standard: Students will demonstrate the ability to use the principles of exercise physiology, social psychology, and biomechanics to design and adhere to a regular, personalized, purposeful program of physical activity consistent with their health, performance, and fitness goals in order to gain health and cognitive/academic benefits.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			A. Aerobic Fitness 1. Identify and show individual aerobic capacity/cardio respiratory fitness. B. Muscular Strength and Endurance 1. Identify and show activities for muscular strength and muscular endurance. C. Flexibility 1. Identify and show activities for flexibility.	A. Aerobic Fitness 1. Identify and show individual aerobic capacity/ cardio respiratory fitness. B. Muscular Strength and Endurance 1. Identify and show activities for muscular strength and muscular endurance. C. Flexibility 1. Identify and show activities for flexibility.	A. Aerobic Fitness 1. Identify and show individual aerobic capacity/ cardio respiratory fitness. B. Muscular Strength and Endurance 1. Identify and show activities for muscular strength and muscular endurance. C. Flexibility 1. Identify and show activities for flexibility.	A. Aerobic Fitness 1. Identify and show individual aerobic capacity/ cardio respiratory fitness. B. Muscular Strength and Endurance 1. Identify and show activities for muscular strength and muscular endurance. C. Flexibility 1. Identify and show activities for flexibility.

Domain: Fine Arts
Strand: Dance: Perceiving, Performing, and Responding
Standard: Aesthetic Education: Students will demonstrate the ability to perceive, perform, and respond to dance.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Recognize and react to the sounds of language (e.g., move rhythmically to familiar songs).	Use his whole body to develop spatial awareness (e.g., dance to music, including songs that direct movement).	Explore more complex situations and concepts, beginning to understand some people's jobs, and care for the environment (e.g., show a finger play that he learned to a friend, then make up hand motions to go with a new song).	1. Demonstrate knowledge of how elements of dance are used to communicate meaning. 2. Demonstrate kinesthetic awareness and technical proficiency in dance movement. 3. Respond to dance through observation, experience, and analysis.	1. Demonstrate knowledge of how elements of dance are used to communicate meaning. 2. Demonstrate kinesthetic awareness and technical proficiency in dance movement. 3. Respond to dance through observation, experience, and analysis.	1. Demonstrate knowledge of how elements of dance are used to communicate meaning. 2. Demonstrate kinesthetic awareness and technical proficiency in dance movement. 3. Respond to dance through observation, experience, and analysis.	1. Demonstrate knowledge of how elements of dance are used to communicate meaning. 2. Demonstrate kinesthetic awareness and technical proficiency in dance movement. 3. Respond to dance through observation, experience, and analysis.

Domain: Fine Arts
Strand: Dance: Historical, Cultural, and Social Context
Standard: Students will demonstrate an understanding of dance as an essential aspect of history and human experience.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Demonstrate knowledge of dances from a variety of cultures. 2. Relate dance to history, society, and personal experience. 3. Demonstrate understanding of the relationships between and among dance and other content areas.	1. Demonstrate knowledge of dances from a variety of cultures. 2. Relate dance to history, society, and personal experience. 3. Demonstrate understanding of the relationships between and among dance and other content areas.	1. Demonstrate knowledge of dances from a variety of cultures. 2. Relate dance to history, society, and personal experience. 3. Demonstrate understanding of the relationships between and among dance and other content areas.	1. Demonstrate knowledge of dances from a variety of cultures. 2. Relate dance to history, society, and personal experience. 3. Demonstrate understanding of the relationships between and among dance and other content areas.

Domain: Fine Arts
Strand: Dance: Creative Expression and Production
Standard: Students will demonstrate the ability to create and perform dance.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Develop the ability to improvise dance. 2. Develop the ability to combine the elements, aesthetic principles, and choreographic forms of dance to communicate meaning. 3. Develop knowledge and execution of performance competencies in dance.	1. Develop the ability to improvise dance. 2. Develop the ability to combine the elements, aesthetic principles, and choreographic forms of dance to communicate meaning. 3. Develop knowledge and execution of performance competencies in dance.	1. Develop the ability to improvise dance. 2. Develop the ability to combine the elements, aesthetic principles, and choreographic forms of dance to communicate meaning. 3. Develop knowledge and execution of performance competencies in dance.	1. Develop the ability to improvise dance. 2. Develop the ability to combine the elements, aesthetic principles, and choreographic forms of dance to communicate meaning. 3. Develop knowledge and execution of performance competencies in dance.

Domain: Fine Arts
Strand: Dance: Aesthetics and Criticism
Standard: Students will demonstrate the ability to make aesthetic judgments in dance.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Identify and apply criteria to evaluate choreography and performance.	1. Identify and apply criteria to evaluate choreography and performance.	1. Identify and apply criteria to evaluate choreography and performance.	1. Identify and apply criteria to evaluate choreography and performance.

Domain: Fine Arts
Strand: Music: Perceiving, Performing, and Responding
Standard: Aesthetic Education: Students will demonstrate the ability to perceive, perform, and respond to music.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Recognize and react to the sounds of language (e.g., move rhythmically to familiar songs).	Use his whole body to develop spatial awareness (e.g., dance to music, including songs that direct movement).	Explore more complex situations and concepts, beginning to understand some people's jobs, and care for the environment (e.g., wait until you point to his group to play the jingle bells during the song, after the woods and triangles have had their solos).	1. Develop awareness of the characteristics of musical sounds and silence, and the diversity of sounds in the environment. 2. Experience performance through singing, playing instruments, and listening to performances of others. 3. Respond to music through movement. 4. Experiment with standard and individually created symbols to represent sounds.	1. Develop awareness of the characteristics of musical sounds and silence, and the diversity of sounds in the environment. 2. Experience performance through singing, playing instruments, and listening to performances of others. 3. Respond to music through movement. 4. Experiment with standard and individually created symbols to represent sounds.	1. Develop awareness of the characteristics of musical sounds and silence, and the diversity of sounds in the environment. 2. Experience performance through singing, playing instruments, and listening to performances of others. 3. Respond to music through movement. 4. Experiment with standard and individually created symbols to represent sounds.	1. Develop awareness of the characteristics of musical sounds and silence, and the diversity of sounds in the environment. 2. Experience performance through singing, playing instruments, and listening to performances of others. 3. Respond to music through movement. 4. Experiment with standard and individually created symbols to represent sounds.

Domain: Fine Arts
Strand: Music: Historical, Cultural, and Social Context
Standard: Students will demonstrate an understanding of music as an essential aspect of history and human experience.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Develop the ability to recognize music as a form of individual and cultural expression through experiencing music as both personal and societal expression. 2. Become acquainted with the roles of music in the lives of people. 3. Explore the relationship of music to dance, theatre, the visual arts and other disciplines. 4. Develop knowledge of a wide variety of styles and genres through the study of music history.	1. Develop the ability to recognize music as a form of individual and cultural expression through experiencing music as both personal and societal expression. 2. Become acquainted with the roles of music in the lives of people. 3. Explore the relationship of music to dance, theatre, the visual arts and other disciplines. 4. Develop knowledge of a wide variety of styles and genres through the study of music history.	1. Develop the ability to recognize music as a form of individual and cultural expression through experiencing music as both personal and societal expression. 2. Become acquainted with the roles of music in the lives of people. 3. Explore the relationship of music to dance, theatre, the visual arts and other disciplines. 4. Develop knowledge of a wide variety of styles and genres through the study of music history.	1. .Develop the ability to recognize music as a form of individual and cultural expression through experiencing music as both personal and societal expression. 2. Become acquainted with the roles of music in the lives of people. 3. Explore the relationship of music to dance, theatre, the visual arts and other disciplines. 4. Develop knowledge of a wide variety of styles and genres through the study of music history.

Domain: Fine Arts
Strand: Music: Creative Expression and Production
Standard: Students will demonstrate the ability to organize musical ideas and sounds creatively.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Develop confidence in the ability to improvise music through experimentation with sound. 2. Investigate composing music through experimentation with sound and the tools of composition.	1. Develop confidence in the ability to improvise music through experimentation with sound. 2. Investigate composing music through experimentation with sound and the tools of composition.	1. Develop confidence in the ability to improvise music through experimentation with sound. 2. Investigate composing music through experimentation with sound and the tools of composition.	1. Develop confidence in the ability to improvise music through experimentation with sound. 2. Develop the ability to compose and arrange music by experimenting with sound and the tools of composition.

Domain: Fine Arts
Strand: Music: Aesthetics and Criticism
Standard: Students will demonstrate the ability to make aesthetic judgments.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Express preferences about selected musical compositions.	1. Express preferences about selected musical compositions. 2. Develop and apply personal aesthetic criteria for evaluating musical performances.	1. Express preferences about selected musical compositions. 2. Develop and apply personal aesthetic criteria for evaluating musical performances.	1. Express preferences about selected musical compositions. 2. Develop and apply personal aesthetic criteria for evaluating musical performances.

Domain: Fine Arts **Strand:** Theatre: Perceiving and Responding **Standard:** Aesthetic Education: Students will demonstrate the ability to perceive, interpret, perform, and respond to the development of a variety of dramatic forms over time and the aesthetic qualities they reflect.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Show an increasing ability to remember and participate in imitative play (e.g., imitate the actions of an adult such as turning a steering wheel in a play car).	Use improved eye-hand coordination to explore and manipulate objects (e.g., do finger plays that require hand-eye coordination, such as "The Itsy Bitsy Spider").	Explore more complex situations and concepts beginning to understand some people's jobs, and care for the environment (e.g., pretend to be a firefighter and spray the dramatic play center with a play hose, telling everyone to get out).	1. Describe ways that theatre depicts themes and stories. 2. Identify and describe the visual, aural, oral, and kinesthetic elements of dramatic performances.	1. Describe ways that theatre depicts themes and stories. 2. Identify and describe the visual, aural, oral, and kinesthetic elements of dramatic performances.	1. Describe ways that theatre depicts themes and stories. 2. Identify and describe the visual, aural, oral, and kinesthetic elements of dramatic performances.	1. Describe ways that theatre depicts themes and stories. 2. Identify and describe the visual, aural, oral, and kinesthetic elements of dramatic performances.

Domain: Fine Arts
Strand: Theatre: Historical, Cultural, and Social Context
Standard: Students will demonstrate an understanding of the history, traditions, and conventions of theatre, dramatic works, and other literature of the theatre.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Express a range of responses to a variety of stimuli. 2. Demonstrate knowledge of theatrical conventions as performers and as an audience.	1. Express a range of responses to a variety of stimuli. 2. Demonstrate knowledge of theatrical conventions as performers and as an audience.	1. Express a range of responses to a variety of stimuli. 2. Demonstrate knowledge of theatrical conventions as performers and as an audience.	1. Express a range of responses to a variety of stimuli. 2. Demonstrate knowledge of theatrical conventions as performers and as an audience.

Domain: Fine Arts **Strand:** Theatre: Creative Expression and Production **Standard:** Students will demonstrate the ability to apply theatrical knowledge, principles, and practices to collaborative theatre presentations.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Show an increasing ability to remember and participate in imitative play (e.g., imitate the actions of an adult such as turning a steering wheel in a play car).	Use imagination memory and reasoning to plan and make things happen (e.g., pretend to feed a baby doll).	Use prior knowledge and imagination to think through what he wants to play (e.g., decide in advance who will be the dad and who will be the son in the dramatic play areas and take turns playing teacher, acting out circle time routines with a friend, talking first about what they each will do).	1. Use a variety of theatrical elements to communicate ideas and feelings. 2. Demonstrate knowledge of theatre performance and production skills in formal and informal presentations.	1. Use a variety of theatrical elements to communicate ideas and feelings. 2. Demonstrate knowledge of theatre performance and production skills in formal and informal presentations.	1. Use a variety of theatrical elements to communicate ideas and feelings. 2. Demonstrate knowledge of theatre performance and production skills in formal and informal presentations.	1. Use a variety of theatrical elements to communicate ideas and feelings. 2. Demonstrate knowledge of theatre performance and production skills in formal and informal presentations.

Domain: Fine Arts
Strand: Theatre: Aesthetics and Criticism
Standard: Students will demonstrate the ability to make aesthetic judgments.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Identify, describe, and apply criteria to assess individual and group theatre processes. 2. Identify, describe, and apply criteria to assess dramatic works and other literature of the theatre.	1. Identify, describe, and apply criteria to assess individual and group theatre processes. 2. Identify, describe, and apply criteria to assess dramatic works and other literature of the theatre.	1. Identify, describe, and apply criteria to assess individual and group theatre processes. 2. Identify, describe, and apply criteria to assess dramatic works and other literature of the theatre.	1. Identify, describe, and apply criteria to assess individual and group theatre processes. 2. Identify, describe, and apply criteria to assess dramatic works and other literature of the theatre.

Domain: Fine Arts
Strand: Visual Arts: Perceiving and Responding
Standard: Aesthetic Education: Students will demonstrate the ability to perceive, interpret, and respond to ideas, experiences, and the environment through visual art.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Use his senses to investigate the world around him, including solving problems (e.g., push, poke, squeeze, pat and sniff the play dough as he explores how it feels and smells).	Recognize that drawings, paintings and writing are meaningful representations (e.g., paint some lines across the paper with broad strokes and movements, using a few different colors, and tell you that it is a rainbow).	Develop finger skills through many forms of play (e.g., make a snowman out of play dough after watching an older child make balls and put them together and practice using scissors to cut out shapes, but be unable to stay on the lines).	1. Identify, describe, and interpret observed form. 2. Identify and compare ways in which selected artworks represent what people see, know, feel, and imagine. 3. Experiment with the elements of art and principles of design to develop personally meaningful compositions.	1. Identify, describe, and interpret observed form. 2. Identify and compare ways in which selected artworks represent what people see, know, feel, and imagine. 3. Experiment with the elements of art and principles of design to develop personally meaningful compositions.	1. Identify, describe, and interpret observed form. 2. Identify and compare ways in which selected artworks represent what people see, know, feel, and imagine. 3. Experiment with the elements of art and principles of design to develop personally meaningful compositions.	1. Identify, describe, and interpret observed form. 2. Identify and compare ways in which selected artworks represent what people see, know, feel, and imagine. 3. Experiment with the elements of art and principles of design to develop personally meaningful compositions.

Domain: Fine Arts
Strand: Visual Arts: Historical, Cultural, and Social Context
Standard: Students will demonstrate an understanding of visual arts as an essential aspect of history and human experience.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Determine ways in which works of art express ideas about self, other people, places, and events. 2. Discuss reasons why people (including self) create and use art by studying artworks and other sources of information. 3. Differentiate among works by artists representative of different cultures. 4. Describe processes used to interpret and express ideas in the visual arts and other disciplines.	1. Determine ways in which works of art express ideas about self, other people, places, and events. 2. Discuss reasons why people (including self) create and use art by studying artworks and other sources of information. 3. Differentiate among works by artists representative of different cultures. 4. Describe processes used to interpret and express ideas in the visual arts and other disciplines.	1. Determine ways in which works of art express ideas about self, other people, places, and events. 2. Discuss reasons why people (including self) create and use art by studying artworks and other sources of information. 3. Differentiate among works by artists representative of different cultures. 4. Describe processes used to interpret and express ideas in the visual arts and other disciplines.	1. Determine ways in which works of art express ideas about self, other people, places, and events. 2. Identify and compare reasons why people create and use art by studying artworks and other sources of information. 3. Differentiate among works by artists representative of different cultures. 4. Compare processes used to interpret and express ideas in the visual arts and other disciplines.

Domain: Fine Arts
Strand: Visual Arts: Creative Expression and Production
Standard: Students will demonstrate the ability to organize knowledge and ideas for expression in the production of art.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Create images and forms from observation, memory, imagination, and feelings. 2. Investigate a variety of ways that artists develop ideas and organize the elements of art in response to what they see, know, and feel.	1. Create images and forms from observation, memory, imagination, and feelings. 2. Investigate a variety of ways that artists develop ideas and organize the elements of art in response to what they see, know, and feel.	1. Create images and forms from observation, memory, imagination, and feelings. 2. Investigate a variety of ways that artists develop ideas and organize the elements of art in response to what they see, know, and feel.	1. Create images and forms from observation, memory, imagination, and feelings. 2. Investigate a variety of ways that artists develop ideas and organize the elements of art in response to what they see, know, and feel.

Domain: Fine Arts
Strand: Visual Arts: Aesthetics and Criticism
Standard: Students will demonstrate the ability to make aesthetic judgments.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
			1. Develop and apply criteria to analyze personally created artworks and the artworks of others.	1. Develop and apply criteria to analyze personally created artworks and the artworks of others.	1. Develop and apply criteria to analyze personally created artworks and the artworks of others	1. Develop and apply criteria to analyze personally created artworks and the artworks of others.

Domain: Social Foundations
Strand: Social Emotional Regulation
Standard: Demonstrates healthy self-confidence.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Gain in self-control/regulation.	Show increasing self-regulation.	A. Demonstrates Independence in a range of Routines and Tasks 1. Begins to actively participate in classroom activities (e.g., answers questions or joins dramatic play).	A. Demonstrates Independence in a range of Routines and Tasks 1. Seeks new and varied experiences and challenges (i.e., put materials together in new ways to test results; joins in a peer created game or activity).	A. Demonstrates Independence in a range of Routines and Tasks 1. Transitions between tasks and routines with a verbal and/or visual warning (i.e., requires limited to no additional prompts).	A. Demonstrates Independence in a range of Routines and Tasks	A. Demonstrates Independence in a range of Routines and Tasks
	Play alongside other children.	2. Chooses where to play during center time.	2. Requires fewer prompts to follow classroom routines and is able to independently anticipate what happens next.	2. Self-selects a variety of activities during free choice and puts away related materials where they belong when finished prior to transitioning to next activity. 3. Creates and/or participates in a new challenge independently. 4. Actively participates in creating games or		

				activities with peers.		
		B. Demonstrates Age-Appropriate Independence in Decision-Making	B. Demonstrates Age-Appropriate Independence in Decision-Making	B. Demonstrates Age-Appropriate Independence in Decision-Making		
		1. Begins to independently select appropriate materials during specific activities (i.e. when presented with a painting project gets red and green paint).	1. Shows interest in leading activities and taking responsibility during cleanup activities.	1. Independently takes initiative to solve problems occurring within activities without immediately requiring adult support (e.g., the child will search for the missing piece in a game for several minutes before asking for help).	1. Identify how to make a good choice/decision.	1. Identify choices available in order to make a decision.
		2. Recognizes the appropriate place for items (e.g., their assigned seat, rest spot, etc.).	2. Begins identifying when things are not put away in designated areas.			
			3. Further expands areas of decision making (e.g., child may say, "This morning I'm going to work on my Lego building").			

Domain: Social Foundations **Strand:** Social & Emotional Regulation **Standard:** Initiates and maintains relations.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Show more awareness of the feelings of another child.	A. Expresses, Understands, and Responds to Feelings/Emotions of Others 1. Identifies basic feelings (e.g., sad, mad, happy).	A. Expresses, Understands, and Responds to Feelings/Emotions of Others 1. Communicates negative and positive emotions verbally and responds to teacher prompts or directions.	A. Expresses, Understands, and Responds to Feelings/Emotions of Others 1. Identifies feelings and expresses them to others (e.g., lets another child know they are happy, sad, mad, etc.) and is able to explain why (e.g., "I'm mad because you took my toy").	1. Examine emotions and responses to various situations. (FROM HEALTH: MENTAL EMOTIONAL HEALTH FRAMEWORK)	1. Examine emotions and responses to various situations. (FROM HEALTH: MENTAL EMOTIONAL HEALTH FRAMEWORK)
Begin to express a variety of feelings.	Use coping skills with tasks, and interactions with peers and adults.	2. Begins to express emotions through non-verbal cues with adult modeling and support (e.g., body language, facial expressions, crosses arms, and frowns).	2. Understands wider array of feelings (e.g., frustrated, scared, lonely) and expresses them to others.	2. Communicates negative emotions in an appropriate way and proposes a solution (e.g., says, "No" or "stop" and proposes a solution to their problem - "Please give me back the book").	Recognize methods of communication.	Recognize appropriate methods of communication.
	Show more awareness of the feelings of another	3. Recognizes when someone needs help, but may not	3. Seeks adult assistance for classmates who need	3. Provides comfort and support for peers		

	child.	respond every time.	support. 4. Shows concern for peers who are upset or hurt.	who are upset. 4. Determines when adult assistance is needed.		
Interact with other children.	Share his feelings through talking and pretend play.	B. Plays or Works with Others Cooperatively 1. Plays alongside other children (e.g., dramatic play, block table). 2. Begins to understand the concept of sharing with adult modeling and support.	B. Plays or Works with Others Cooperatively 1. Has one or more special friendships. 2. Initiates interactions (e.g., talking, playing). 3. Shares materials and equipment with other children with adult modeling and support.	B. Plays or Works with Others Cooperatively 1. Chooses and maintains friendships. 2. Asks permission to use others' materials and accepts peer's response. 3. Communicates to others about his friendships (e.g., tells parent at pick-up about a new friend).	Identify relationships and behavioral skills to develop a sense of community in physical activity settings.	Identify relationships and behavioral skills to develop a sense of community in physical activity settings.
		C. Recognizes Differences or Similarities Between Self as	C. Recognizes Differences or Similarities Between Self as Compared to	C. Recognizes Differences or Similarities Between Self as	Identify positive and negative character traits, contributing to	Identify positive and negative character traits, contributing to

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		Compared to Others 1. Begins to recognize differences or similarities between self as compared to others (e.g., children with disabilities, gender, hair color, etc.). D. Shows Ability to Resolve Conflicts 1. Accepts compromise when resolving conflicts if suggested by an adult (e.g., mom says, "Jackson, you can use that swing as soon as Sheila finishes her turn").	Others 1. Identifies differences or similarities between self as compared to others (e.g., children with disability, gender, hair color, etc.). 2. Identifies and negotiates when a peer is not given the same instructions or structure (e.g., "William's mommy lets him watch Dora. Why can't I?"). D. Shows Ability to Resolve Conflicts 1. Identifies inter-personal conflicts and begins to manage emotions more effectively using self-talk with adult support and modeling (e.g., "Take three deep breaths, and then ask Caleb for	Compared to Others 1. Recognizes and accepts differences or similarities between self as compared to others (e.g., children with a disability, cultural differences, gender, etc.). 2. Understands and accepts when a peer is not given the same instructions or structure (e.g., Alexander needs a fidget toy to help him stay calm when he's upset). D. Shows Ability to Resolve Conflicts 1. Begins to see the point of view of others (i.e., theory of mind).	one's uniqueness.	one's uniqueness.

			another turn").			
		2. Seeks adults' help in resolving a conflict (e.g., goes to dad and says, "Jacob took my truck!").	2. Seeks adult help when solving inter-personal conflicts.	2. Identifies inter-personal conflicts and considers verbal or nonverbal solutions to the conflict.		
		3. Continues to learn simple alternatives to aggressive ways of dealing with conflicts (e.g., trades one object for a desired one).	3. Discusses possible solutions with peers with adult assistance.	3. Negotiates with others to solve problems.		
			4. Has an awareness of conflict resolution strategies but is not able to independently implement consistently (e.g., understands a story when a social strategy was used but can't adapt functionally).	4. Accepts conflict resolution strategies as suggested by others.		

Domain: Social Foundations **Strand:** Approaches to Learning & Executive Functioning. **Standard:** Self-regulation/inhibitory control.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Gain in self-control/regulation.	Show increasing self-regulation.	A. Control Impulses 1. Occasionally avoids imitating the negative behaviors of peers with prompting from an adult. 2. Developing the ability to control impulses during structured activities with adult support (e.g., resist the impulse to call out before raising hand during group time). 3. May remind other children to control their impulses and follow rules when not able to do so oneself. 4. May need to be reminded to stop a habitual action	A. Control Impulses 1. Avoids imitating the negative behavior of peers with minimal prompting from adults. 2. Can more reliably control impulses during structured activities that are familiar (e.g., raising hand to talk). 3. Can play the role of a teacher in game and monitor other children's behavior and remind them to follow the rules. 4. Sometimes able to resist habits when they are no longer	A. Control Impulses 1. Avoids imitating the negative behaviors of peers. 2. Can consistently control impulses during structured activities that are familiar (e.g., raising hand to talk). 3. Enjoys working collaboratively to develop complex rules for games (particularly dramatic play) and provide reminders of these rules when necessary. 4. More able to monitor behaviors and resist habits		

		when it is not appropriate (e.g. continuing to go to the bathroom for paper towels even though they have been moved into the classroom). 5. Can enjoy games like Red Light, Green Light that require waiting for signal to do something with adult support. B. Resist Temptation 1. Briefly able to wait for an object without grabbing. Can wait longer with adult support. 2. Can wait for a highly desired food or object with adult reminders (e.g., can wait to eat the cupcake in reach until the birthday song is complete). 3. Able to takes turns with preferred toys with	appropriate (e.g., may remember while walking to the bathroom that the paper towels have moved and change course). 5. Able to play games like Red Light, Green light that require waiting for signal to do something with adult support. B. Resist Temptation 1. Independently waits for an object without grabbing most of the time. 2. Able to take turns with preferred toys or classroom materials (i.e., waits for an object without grabbing with minimal prompting). 3. Can wait for a highly desired food or object, although	when they are not appropriate. 5. More skillful at games like Red Light, Green Light that require waiting for a signal to do something. B. Resist Temptation 1. Consistently waits for an object without grabbing. 2. Able to take turns with preferred toys or classroom materials. 3. Can consistently wait for a highly desired food or		

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		prompting from an adult. C. Refrains from Emotional Outbursts and Unsafe Behaviors 1. Shows progress in resisting the impulse to harm self, others or property in difficult situations or conflicts and using language to express strong feelings instead (e.g., says, "I really, REALLY need that swing!"). May still fall apart under stress.	may occasionally need reminders. C. Refrains from Emotional Outbursts and Unsafe Behaviors 1. Learns coping strategies (e.g., using words, pretend play, drawing) to establish greater control and competence in managing intense emotions (e.g., after going to the emergency room, he or she may repeatedly play out the experience with dolls and stuffed animals) and resist impulse to harm self, others or property.	object when asked. May decide independently to wait as well (e.g., decides to eat a favorite food last). C. Refrains from Emotional Outbursts and Unsafe Behaviors 1. Uses physical, imaginative, and cognitive resources to comfort self (e.g., goes to his or her desk or designated quiet area voluntarily when upset) and resist impulse to harm self, others or property. 2. Controls the expression of emotion; however, he or she continues to need adult guidance in this area.		

		D. Attentiveness—Resists Distraction to Maintain Focus on Tasks of Interest to the Child 1. Maintains focus on one activity for longer periods of time as long as the activity is age-appropriate and of interest (e.g., can repeatedly solve and dump out a wooden puzzle, even with other children playing in the background).	D. Attentiveness—Resists Distraction to Maintain Focus on Tasks of Interest to the Child 1. Increases ability to ignore distractions and sustain attention on topics that are of interest to the child (e.g., can focus on a drawing even when other children are nearby; might say, "I'll play with you later. I want to finish this"). 2. Capable of sustaining focus on longer-term or complex projects, with support from an adult.	D. Attentiveness—Resists Distraction to Maintain Focus on Tasks of Interest to the Child 1. Capable of resisting distractions and keeping attention focused on a task of interest to the child. 2. Able to independently maintain focus on a project of interest for a sustained period of time (e.g., spends a rainy day building a complicated fort out of chairs and blankets, complete with props and signs).		

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		E. Attentiveness—Resists Distraction to Maintain Focus on Tasks Set By Someone Else 1. Remains on task during an activity set by the teacher for short periods of time despite distractions though still may require prompting from an adult. 2. Can return to an earlier task after an interruption, with adult reminders.	E. Attentiveness—Resists Distraction to Maintain Focus on Tasks Set By Someone Else 1. Remains on task during an activity set by the teacher for short periods of time despite distractions with minimal prompting from adults (e.g., can ignore other activities nearby and hold focus on a teacher directed small group activity). 2. May need a reminder to return to an earlier task after an interruption.	E. Attentiveness—Resists Distraction to Maintain Focus on Tasks Set By Someone Else 1. Independently avoids distractions and remains on task for short periods of time during a teacher directed activity. 2. Can independently pause and resume an activity to respond to an interruption. 3. Uses self-talk and other strategies to maintain focus on difficult tasks and assignments from adults (e.g., "There's only three more questions left. If I finish these, then I'll be all done with this project").		

Domain: Social Foundations
Strand: Approaches to Learning & Executive Functioning
Standard: Working Memory

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Use objects and toys more purposefully.	Use imagination, memory and reasoning to plan and make things happen.	A. Demonstrate the Ability to Hold and Manipulate Information 1. Can remember and talk about what has just happened in a story and what is happening now. 2. Can consider two options and make a choice when asked.	A. Demonstrate the Ability to Hold and Manipulate Information 1. Can remember recent events in a story and use this information to shape predictions and questions. 2. Will frequently consider a couple of possibilities before making a choice.	A. Demonstrate the Ability to Hold and Manipulate Information 1. Remembers several key points in a story and then answers questions accurately (e.g., how did the main character feel when she finds the dog?). 2. Spends time deliberating and weighing choices (e.g., may spend a long time thinking about whether to go to the store with mom or to stay home and help dad).		
	Improve memory for details.	3. Can hold two rules in mind long enough to complete the tasks (e.g., "Throw your trash away, and then put your lunchbox in your	3. Can remember and follow multiple classroom rules with visual and auditory cues.	3. Identifies and can hold in mind school rules independently.		

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		cubby). 4. Can remember a response to a teacher's question long enough to respond appropriately after waiting for a turn during a short group discussion. 5. Can put down a toy and remember its location for a brief period of time. 6. Can enjoy success at simple memory games tracking a few objects or pictures.	4. Can remember and follow two-step directions without prompting. 5. Can hold in mind the comments of peers and respond appropriately during a short class discussion. 6. Can keep track of a few different objects for short periods of time. 7. Can enjoy more complex memory games with more cards or objects.	4. Can contribute appropriately to more complex group discussions, holding in mind both the topic of discussion and the contributions of peers. 5. Can keep track of the parts for more complicated projects involving many pieces. 6. Can enjoy success at complex memory games, including games requiring the tracking hidden objects (e.g., a memory game on a rotating board).		

Domain: Social Foundations
Strand: Approaches to Learning & Executive Functioning
Standard: Cognitive Flexibility

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Interact with other children.	Share his feelings through talking and pretend play.	A. Can Flexibly Apply Rules to Games and Behavior 1. Can take on a character in pretend play and sustain this role consistently for approximately 5-10 minutes with adult modeling and support. 2. Can enjoy games with rules and follow the rules some of the time. 3. Can learn to follow different rules in different contexts and can do so with reminders (e.g., use indoor voices indoors but not outdoors). 4. Can recognize when making a mistake and change	A. Can Flexibly Apply Rules to Games and Behavior 1. Can independently sustain a character in pretend play for ten minutes or longer. 2. Can switch roles in dramatic play. 3. Can enjoy games like Simon Says that require child to follow two different rules when cued (copying, not copying). 4. Can follow different rules in different familiar	A. Can Flexibly Apply Rules to Games and Behavior 1. Sustains roles in pretend play independently and negotiates the roles. 2. Can change roles easily during the play if necessary or desired. 3. Become skilled at games like Simon Says that require the child to follow two different rules and can shift rules without direct prompting. 4. Can consistently follow different rules in different		

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		approach with adult help. 5. Able to sort materials by two different characteristics (e.g., blocks go here, dolls go here). B. Flexible Problem Solving - Seeks Multiple Solutions to a Question, Task, or Problem 1. Employs a strategy to solve a problem with adult modeling, prompting, and support.	contexts with minimal reminders (e.g., take off shoes at home but not at school). 5. Will often recognize and correct mistakes independently. 6. Able to change the categories used for sorting materials with help (e.g., sort by color then by shape). B. Flexible Problem Solving - Seeks Multiple Solutions to a Question, Task, or Problem 1. Begins to employ their own solutions to problems through trial and error (e.g., tries different pegs to see which one fits).	contexts and quickly learn and follow new rules in new contexts. 5. Able to recognize and correct mistakes. 6. Can sort by different attributes independently. B. Flexible Problem Solving - Seeks Multiple Solutions to a Question, Task, or Problem 1. Solves problems by planning and carrying out a sequence of actions; may seek more than one solution, and explain their reasoning (e.g., discusses the number of people who want some		

				play dough, suggests methods for dividing it, and how they might determine if the pieces are all the same).		
Begin to express a variety of feelings.	Use coping skills with tasks, and interactions with peers and adults.	2. Asks adults to solve or "fix" a problem.	2. Continues to become more cognitively flexible and is able to draw on varied resources to solve problems (e.g., tries to build a large structure with blocks, but the building keeps falling down. After several failed attempts, he or she tries making a larger base. May also look at how other children have made their buildings).	2. Becomes increasingly able to think creatively about multiple solutions to a problem (i.e., analyzes possible results).		
		3. Continues to become more flexible in problem-solving and thinking through alternatives (e.g., when trying to put on shoes, talks to self about what to do first. If the shoe won't easily go on	3. When in conflict with another child, increasingly able to suggest possible solutions.	3. Utilizes varied and flexible approaches to solve longer-term or more abstract challenges (e.g., when planning to have friends over on a rainy day, thinks about how to deal with a		

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		one foot, he or she tries the other foot). 4. After a conflict with another child, can talk about other ways the problem might have been resolved. 5. When faced with a problem can slow down and think through options with support from an adult (e.g., "It looks like someone is in your way. What could you do to get him to move?").	4. When faced with a problem, can be reminded to slow down and think about what to do.	limited space to play). 4. Able to negotiate conflicts with other children independently by considering a few potential solutions. 5. May slow down and use self-talk to think about what to do when approaching problem.		

Domain: Social Foundations
Strand: Approaches to Learning and Executive Functioning
Standard: Initiative & Curiosity

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Understand questions and simple directions.	A. Desire to Learn—Ask Questions and Seeks New Information 1. Begins to ask basic "wh" questions related to the environment (e.g., "Where is Sarah going?"). 2. Seeks experiences with new toys and materials (e.g., listens to stories, plays with friends at the water table, takes trips to the fire station). 3. Generates ideas with teachers and peers with adult modeling and support.	A. Desire to Learn—Ask Questions and Seeks New Information 1. Asks questions about future events, as well as about the here and now (e.g., asks, "When will we go to Val's?). 2. Poses questions to seek explanations about topics of interest with adult support and modeling. 3. Elaborates on experiments by attempting to replicate results using different materials (e.g., gathers several materials to drop in the water table, then	A. Desire to Learn—Ask Questions and Seeks New Information 1. Asks higher-level questions (e.g., "What would happen if we had no food?" or "Why was Raymond mad at me"?). 2. Poses questions to seek explanation on a variety of topics. 3. Tries an even wider range of new experiences, both independently and with peers and adults	Explain the concept of effort.	Explain the concept of effort.

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			sorts what sinks vs. what floats). 4. Asks to participate in new experiences that he or she has observed or has heard of others participating in (e.g., says, "Janice goes fishing. Can I?").	4. Expands verbal and nonverbal enthusiasm for learning new things, including academic (e.g., reading, writing) and physical skills (e.g., riding a bike).		
		B. Desire to Learn—Interest in Challenges 1. Continues to ask numerous questions, which are becoming more verbally complex (e.g., asks, "How do we get to Nana's house?"). 2. Starts to demonstrate enthusiasm for new challenges and experiences.	B. Desire to Learn—Interest in Challenges 1. Asks questions about future events, as well as about the here and now (e.g., asks "When will we go to Sarah's house again?"). 2. Starts to show an increase in enthusiasm for learning letters, shapes, and numbers (e.g., while looking at a book with dad, points to a word that contains the letter "S" and says, "S! That's in	B. Desire to Learn—Interest in Challenges 1. Attempts activities that are new and challenging. May deliberately take risks when learning new skills. 2. Shows interest and skill in more complex self-help skills (e.g., zips jacket, prepares a snack).		

			my name! What is that word?"). 3. Seeks new and varied experiences and challenges (e.g., puts materials together in new ways to test results; joins in a peer-created game or activity, tries to dress a new doll or builds a new construction toy).			
		C. Independence in Learning—Plans and Initiates Projects 1. Begins to actively participate in classroom activities (i.e. answers questions or joins dramatic play). 2. Chooses where to play during center time.	C. Independence in Learning—Plans and Initiates Projects 1. When prompted, initiates plan of activities. 2. Shows interest in leading activities and taking responsibility during cleanup activities.	C. Independence in Learning—Plans and Initiates Projects 1. Independently plans a project and gathers materials needed to execute the project. 2. Self-selects a variety of activities during free choice and puts away related materials where they belong when finished prior to transitioning to next activity.		

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		3. Begins to independently select appropriate materials during specific activities (e.g., when presented with a painting project gets red and green paint).	3. Further expands areas of decision-making (e.g., child may say, "This morning I'm going to work on my Lego building"). 4. Develops greater ability to set goals and follow a plan (e.g., child says, "I'm going to pick up all these branches," and then works until it is done).	3. Actively participates in creating games or activities with peers. 4. Independently takes initiative to solve problems occurring within activities without immediately requiring adult support (e.g., the child will search for the missing piece in the doctor's kit for several minutes before asking for help).		

Domain: Social Foundations
Strand: Approaches to Learning & Executive Functioning
Standard: Demonstrates Persistence

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
		A. Persists in an Activity From Start to Finish (Complete a Task)--Independently 1. Persists with a wider variety of tasks, activities, and experiences with adult prompting. 2. Keeps working to complete a task even if it is moderately difficult (e.g., persists with a somewhat challenging wooden puzzle). 3. Notes sense of accomplishment when finishing a planned activity (e.g., successfully drawing a figure).	A. Persists in an Activity From Start to Finish (Complete a Task)--Independently 1. Persists with a wider variety of tasks, activities, and experiences with adult prompting. 2. Keeps working to complete a task even if it is moderately difficult (e.g., persists with a somewhat challenging wooden puzzle). 3. Will often persist in working to complete all aspects of a planned task (e.g., when building a zoo in the block area, will keep working until every animal has a cage).	A. Persists in an Activity From Start to Finish (Complete a Task)--Independently 1. Persists with a wider variety of tasks, activities, and experiences with adult prompting. 2. Keeps working to complete a task even if it is moderately difficult (e.g., persists with a somewhat challenging wooden puzzle). 3. Can persist in completing a complicated plan (e.g., creating a parade in the classroom that involves making instruments, costumes and decorations).		

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		B. Persists in the Face of Failure 1. Insists upon putting on coat independently, even though prior attempts have been unsuccessful. 2. Continues to stack cups or complete a simple puzzle unsuccessfully without an emotional outburst with adult support. 3. Can adjust approach to a task to resolve difficulties with adult help (e.g., if teacher suggests the child rotate a puzzle piece to find a better fit).	B. Persists in the Face of Failure 1. Continues to attempt to build a tower even after three or more unsuccessful attempts with adult support and encouragement. 2. Experiences difficulty with drawing, cutting, and writing, but persists with adult support and encouragement until task is complete. 3. Will often notice that a problem can be resolved by a change in approach (e.g., trying to fit a puzzle piece a few times and then rotating to find a better fit).	B Persists in the Face of Failure 1. Continues to attempt to build a tower even after three or more unsuccessful attempts independently. 2. Experiences difficulty with writing, however continues to try write letters and numbers independently, until the task is completed. 3. Will consistently try a new approach to a problem when the old one is not working (e.g., immediately rotating a puzzle piece to find a better fit).		

Domain: Social Foundations
Strand: Approaches to Learning & Executive Functioning
Standard: Demonstrates Cooperation

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
	Play alongside other children.	A. Positively Participates in Cooperative Play 1. Offers basic help to peers who are in need, upset, hurt, or angry (e.g., hug, comfort object, pat, encouraging word).	A. Positively Participates in Cooperative Play 1. Responds more appropriately and sympathetically to peers who are in need, upset, hurt, or angry (e.g., says, "Don't cry, Willy. My daddy can fix that bike. He knows how").	A. Positively Participates in Cooperative Play 1. Uses a wider array of words or actions to demonstrate awareness, understanding, and concern for what others are feeling (e.g., goes over to a child whose block building has fallen down and says, "Don't worry, Manuel. I'll help you build it up again").		
	Show more awareness of the feelings of another child.	2. Attempts to give aid may not take into account the other child's characteristics or needs (e.g., offers a crying classmate his or her own stuffed animal, even though the child has another comfort object).				

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	Show his feelings through talking and pretend play.	3. Begins to have real friendships, even though he or she may not understand the concept of friendship or that these relationships may not last (e.g., says “my best friends are Nathan, Sharon, Enrique, Cassidy…” and all others in his or her class).	3. Shows further progress in developing friendships with peers, even if a bond is formed with just one other child.	3. Continues to establish and maintain friendships with other children. Seeks others' acceptance and friendship (e.g., says, "We're buddies, right?").		
		4. Accepts compromise when resolving conflicts if it is suggested by an adult (e.g., mom says, "Jackson, you can use that swing as soon as Sheila has finished").	4. Begins to try to please other children (e.g., says, "You can come to my birthday party, ok?").	4. Uses a broader repertoire of strategies, including negotiation and compromise, to resolve conflicts before seeking adult help (e.g., says, "I have a great idea, Henry! You be the bear, and I will be the lion. Then we can switch!").		
	Use coping skills with tasks, and interactions with peers and adults.	5. Seeks adults' help in resolving a conflict (e.g., goes to dad and says, "Jacob took my truck!").	5. Suggests solutions to problems with other children, while continuing to seek adults' help (e.g., says, "Hey, Benjamin! We can	5.Uses more complex language to express his or her understanding of feelings and their causes (e.g., says, "I want to try riding		

		6. Continues to learn simple alternatives to aggressive ways of dealing with conflicts (e.g., trades one doll for a desired one by saying, "You have THIS dolly, okay?").	BOTH be firemen!").	on that, but I'm sort of scared, too").		

Domain: Social Foundations **Strand:** Approaches to Learning & Executive Functioning **Standard:** Understanding & complying with classroom rules, routines, & expectations.						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Gain in self-control/regulation.	Show increasing self-regulation.	A. Follows Routines, Rules, and Directions 1. Follows classroom rules frequently 2. Behaves appropriately within the context of the classroom routines (e.g., sits for brief periods during circle or washes hands for lunch time. 3. Begins to anticipate the next activity in the routine (e.g., asking "Are we going outside?" during snack time).	A. Follows Routines, Rules, and Directions 1. Helps to create classroom rules. 2. Responds to teacher directions or signals consistently. 3. Takes initiative with assigned or chosen tasks relating to classroom routines. 4. Behaves appropriately within the context of the classroom routines with adult modeling and support (i.e. listens when	A. Follows Routines, Rules, and Directions 1. Able to answer why specific rules exist (i.e., safety rules). 2. Able to help create school rules. 3. Able to recognize rules as fair or unfair. 4. Able to help problem solve rules in support of fair treatment of everyone.		

			someone else is talking or raises hand to share). 5. Requires fewer prompts to follow classroom routines and is able to independently anticipate what happens next.	5. Able to plan their activities around the classroom routine 6. Identifies classroom routines by day of the week (e.g., understanding on Monday music is after lunch, etc.). 7. Behaves appropriately within the context of school routines (e.g., exiting the bus or attending school assemblies).		

Domain: Social Foundations
Strand: Approaches to Learning & Executive Functioning
Standard: Understanding & complying with classroom rules, routines, and expectations.

1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
		A. Demonstrates the Ability to Postpone Activity and Start Another 1. Responds to visual or auditory prompts and cues to transition to the next activity with adult support. 2. Moves from a preferred activity to a less preferable activity with adult support and assistance. 3. Demonstrates the ability to stop an engaging activity to help clean up with adult support. B. Demonstrates the Ability to Adopt to New	A. Demonstrates the Ability to Postpone Activity and Start Another 1. Takes and gives cues to other children during transition and models their appropriate behavior with adult support. 2. Occasionally demonstrates the ability to stop an engaging activity to help clean up with and requiring less support and guidance from an adult. B. Demonstrates the Ability to Adopt to New Environments	A. Demonstrates the Ability to Postpone Activity and Start Another 1. Consistently demonstrates the ability to independently stop an engaging activity to transition to another less desirable activity. 2. Responds to visual or auditory prompts and cues to transition to the next activity with little or no adult prompting. B. Demonstrates the Ability to Adopt to New		

		Environments with Appropriate Behaviors with Adult Support	with Appropriate Behaviors with Adult Support	Environments with Appropriate Behaviors with Adult Support		
Rely on trusted adults to feel safe trying new activities.	Continues to need adult approval but show more independence.	1. Demonstrates comfort with the transition from home to the classroom environment (e.g., begins to calm down quicker and more frequently when parents leave). 2. Engages with trusted adults during transition with support and encouragement.	1. Manages separation anxiety from home to school by kissing caregiver goodbye or waving from the window every day. 2. Frequently demonstrates comfort with the transition from home to the classroom environment (e.g., easily calms down when parents leave). 3.Engages in out of the classroom activities (i.e., recess) and successfully re-enters classroom without disruption.	1. Arrives at school ready to engage in the classroom routine. 2. Consistently transitions easily from home to school. 3. Engages in out of classroom activities and successfully re-enters the classroom routine without disruption independently.		
		C. Demonstrates Appropriate Use of	C. Demonstrates Appropriate Use of	C. Demonstrates Appropriate Use of		

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		Materials or Belongings and Those of Others 1. Begins to help with clean up after activities with prompting and adult assistance. 2. Begins to recognize where materials belong. 3. Begins to understand how to use age-appropriate classroom materials with modeling and prompting. Follows adult direction and modeling for an assigned task (e.g., turning pages of book with care, then puts book back onto shelf with prompting). 4. Begins to reference past	Materials or Belongings and Those of Others 1. Helps with clean up after activities with prompting. 2. Begins to demonstrate appropriate use of classroom materials with modeling (e.g., using glue in an art project appropriately or turning book pages with care). 3. Recognizes and is responsible for returning items to appropriate location with prompting. 4. Begins identifying when things are not	Materials or Belongings and Those of Others 1. Cleans up after activities, placing items in their appropriate place independently. 2. Demonstrates appropriate use of classroom materials with consistency and independently. 3. Begins to understand and appropriately care for items that belong to someone else. 4. Continues to benefit from		

		knowledge to create understanding of new information through pretend play (e.g., says "This game is like the one we played in Ms. Kim's class).	put away in designated areas.	hands- on experiences to support more abstract thinking skills (e.g., makes a book about last summer's vacation trip, complete with sections for each place visited, drawings to illustrate, and labels written with adult help).		

Domain: Social Foundations **Strand:** Approaches to Learning & Executive Functioning **Standard:** Demonstrates cognitive flexibility—Understands symbolic representation						
1 Year	2 Years	3 Years	4 Years	Kindergarten	Grade 1	Grade 2
Explore drawing, painting and writing as a way of communicating.	Recognize that drawings, paintings and writing are meaningful representations.	A. Represents People, Places, or Things Through Drawings, Movement, and Three Dimension Objects 1. Develops generic symbols for repeated drawings of common objects like sun, dog and house. 2. Begins drawing in a more realistic manner, occasionally oscillating between realism and scribbling.	A. Represents People, Places, or Things Through Drawings, Movement, and Three Dimension Objects 1. Begins to create art that is more realistic and includes some details of objects, animals or people. Such details are typically remembered features that have made an impression, but do not include all that is seen or known (e.g., draws a picture of a car with four wheels but no windows). 2. Uses art to reflect thoughts and feelings (e.g., transforms a list of favorite foods that his teacher had recorded on paper	A. Represents People, Places, or Things Through Drawings, Movement, and Three Dimension Objects 1. Develops a set of symbols to create a landscape that eventually becomes a single variation repeated endlessly. 2. Landscapes are composed carefully, giving the impression that removing any single form would throw off the balance of		

			into a mobile from which illustrations of these foods are hung).	the whole picture.		
Interact with other children.	Share his feelings through talking and pretend play.	B. Engages in Pretend Play and Acts Out Roles 1. Identifies difference between fantasy and reality with adult support and prompting. 2. Able to act out simple roles (i.e., "Look, I am a dog, ruff, ruff").	B. Engages in Pretend Play and Acts Out Roles 1. Communicates thoughts and feelings through role play though may still need adult support (e.g., play acts being a kitten seeking affection and hugs). 2. Uses objects as symbolic props (e.g., places a shell on top of a dollhouse and declares it to be a satellite dish). 3. Becomes more animated in play (e.g., using different voices for the baby, dog, etc.)	B. Engages in Pretend Play and Acts Out Roles 1. Imitates and sustains pretend play independently and negotiates the roles. 2. Begins adhering to social norms in pretend play (e.g.., only girls can be mommies). 3. Demonstrates understanding of the world around her/him.		
		C. Recognizes Cause and Effect 1. Understands explanations when	C. Recognizes Cause and Effect 1. Increased ability to understand	C. Recognizes Cause and Effect 1. Increased ability to understand		

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		concrete objects and actions support the verbal explanation, and phenomena are directly observable (e.g., "When we mix colors, we get a new color. See what color you get when you mix yellow with blue").	explanations when concrete objects and actions support the verbal explanation, and phenomena are directly observable (e.g., "When we mix colors, we get a new color. See what color you get when you mix yellow with blue"). 2. Begins to understand explanations of events that have not been experienced directly, as long as the child has had similar experience.	verbal explanations of phenomena that are not directly experienced, as long as the child has had similar experiences (e.g., "The sun gives off heat. Even though you can't see it, it's happening"). 2. Begins to understand consequences of own action when prompted by teacher (e.g., "Tell me what is a good reward for helping your friends clean up their block game").		

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