

2023

# RI EARLY LEARNING & DEVELOPMENT STANDARDS



THESE EARLY LEARNING STANDARDS ARTICULATE SHARED EXPECTATIONS FOR WHAT YOUNG CHILDREN SHOULD KNOW AND BE ABLE TO DO. FURTHER, THEY PROVIDE A COMMON LANGUAGE FOR MEASURING PROGRESS TOWARD ACHIEVING SPECIFIC LEARNING GOALS. (Kendall, 2003; Kagan & Scott-Little, 2004)














# TABLE OF CONTENTS

Acknowledgements.....	2
Rationale.....	3
Intended Use.....	3
Guiding Principles.....	5
Core Values .....	5
Essential Practices.....	6
Organization of <i>The RIELDS</i> .....	9
Outline of <i>The RIELDS</i> .....	11

## Early Learning and Development Standards

Glossary.....	73
Citations.....	78

 Physical Health and Motor Development .....	13
 Social and Emotional Development.....	21
 Language Development.....	28
 Literacy .....	35
 Cognitive Development .....	44
 Mathematics .....	49
 Science.....	55
 Social Studies.....	64
 Creative Arts.....	70



# ACKNOWLEDGEMENTS

The Rhode Island Board of Education adopted the Rhode Island Early Childhood Learning and Development Standards (RIELDS) on May 23, 2013. The Race to the Top – Early Learning Challenge grant provided funds for the revision and expansion of the state’s early learning and development standards. Throughout 2022, *the RIELDS* were opened for public comment and revision. On January 24th 2023 the 2023 Rhode Island Early Learning and Development Standards were endorsed by the Council on Elementary and Secondary Education.

*Charting the Course for Success:* Rhode Island’s Early Childhood Learning and Development Standards were made possible by many dedicated individuals giving countless hours to the project. We are grateful for the multitude of early

childhood stakeholders: The RI Early Learning Council (ELC), the Region 2 Comprehensive Center (R2CC), licensed family childcare providers, licensed child care administrators and teachers, Head Start, RI Pre-K administrators and teachers, public school administrators and teachers, and special education programs and parents and community members who provided input and made recommendations that enriched the level of content and quality of the standards.

We must also recognize those who were instrumental in drafting multiple versions of the early learning and development standards:

## The Core Team (2013)

**Kristen Greene**  
Rhode Island Department of Education

**Michele Palermo**  
Rhode Island Department of Education

**Susan Dickstein, PhD**  
Bradley Hospital Early Childhood Center/Brown Medical School  
Rhode Island Association for Infant Mental Health

**Ruth Gallucci**  
Rhode Island Department of Education

**Brenda Duhamel**  
Rhode Island, Office of Health and Human Services

**Sara Mickelson**  
Rhode Island Department of Education

**Judi Stevenson-Garcia**  
Rhode Island Department of Education

**(2023)**  
**Amanda Blazka**  
Rhode Island Department of Education

**Elaine Remillard**  
Rhode Island Department of Education

**Lisa Nugent**  
Rhode Island Department of Education

**Zoe McGrath**  
Rhode Island Department of Education

## Consultants and National Experts (2013)

**Clancy Blair**  
Professor of Applied Psychology, New York University

**Douglas H. Clements**  
Kennedy Endowed Chair in Early Childhood Learning and Professor, University of Denver

**Linda Espinosa**  
Professor of Early Childhood Education (Ret.) University of Missouri, Colombia

**Kathleen Hebbeler**  
Manager of the Community Services and Strategies Program, SRI International

**Linda Kimura**  
Director, Babies Can’t Wait

**Jeffrey Capizzano**  
Policy Equity Group

**Catherine Scott-Little**  
Associate Professor, Human Development and Family Studies, University of North Carolina

**Dorothy Strickland**  
Samuel DeWitt Proctor Professor of Education Emerita, Rutgers, The State University of NJ

**Karen Anderson**  
Education Development Center, Inc

**Jackie Bourassa**  
Education Development Center, Inc

## (2023)

**Anna Falkner**  
Assistant Professor, Early Childhood Education, University of Memphis

**Oscar A. Barbarin**  
Professor of African American Studies and Psychology, University of Maryland

**Delis Cuellar**  
Research Associate, WIDA, University of Wisconsin-Madison

## Region 2 Comprehensive Center (2023)

**Mindy Brookshire**  
Senior Program Associate, WestEd Center for Child and Family Studies

**Cindy Hoisington**  
Project Director, Education Development Center, Inc.

**Clare Waterman**  
Research Scientist, Education Development Center, Inc.

**Georgia Bock**  
Research Associate, Education Development Center, Inc.



Visit [www.rields.com](http://www.rields.com)

Or scan this code with your device for our mobile-friendly version.





# RATIONALE

## From birth, children are curious and motivated to learn.

As they grow and learn, their brains change dramatically, especially during the first three years of life. These changes are influenced by genetics and environmental experiences (including relationships and physical conditions) as children develop in realms of thinking, speaking, behaving, and reasoning (Kupcha-Szrom, 2011; Center on the Developing Child, 2012)

By interacting with their world, young children make discoveries, figure out how things work, try out new behaviors, learn social rules, and solve problems. High-quality early learning and relationships enhance their development in every way: physical, social, linguistic, cognitive, mathematic, scientific, and artistic. When children actively explore environments and materials, they build concept knowledge and critical thinking skills. When caregivers (*their parent or other primary caregiver, adult family members, and other familiar adults*), childcare providers, and teachers, \* develop warm, trusting relationships with the children in their care, they are laying a solid foundation for children’s learning, relationships, and development (National Scientific Council on the Developing Child, 2004). Early development across all domains secures this foundation for a child’s later success in school and in life. (Maine Department of Education, 2005)

Early learning standards articulate shared expectations for what young children should know and be able to do. Further, they provide a common language for measuring progress toward achieving specific learning goals. (Kendall, 2003; Kagan & Scott-Little, 2004) *The Rhode Island Early Learning and Development Standards* (hereafter, *the RIELDS*) outlines early learning expectations at key benchmarks, from birth to 60 months of age.

While presented in a stand-alone document, these standards should not be considered in isolation. They comprise one key element of the state’s early learning system has and have been strategically designed to work in conjunction with other parts of the system – curriculum, assessment, professional development, program quality, and workforce competencies. *The RIELDS* are designed to promote high-quality care and education for all children birth through five years, with universal design considerations for multilingual learners, students with disabilities, and those at risk for entering kindergarten without adequate foundations for success. In this way, the document serves as a valuable resource to the entire early care and education community.

\* A child’s teacher is anyone invested and involved in the child’s learning: parents, caregivers, therapists, and doctors, as well as preschool and school teachers  
\*\* A child’s primary caregiver may be a parent but also may be a relative or someone outside the biological family. For purposes of simplicity, this document uses the word “family” to mean that person (or persons) who has assumed the primary responsibility of caring for and raising a child



# INTENDED USE

Early learning is the foundation of Rhode Island’s entire educational system. *The RIELDS* will serve several purposes in the state’s early childhood part of that system. First and foremost, these revised standards will guide early care and education practices, such as curriculum and assessment choices, to ensure children receive every opportunity to make progress in the designated learning domains. These standards also can support the understanding among caregivers and family members\*\* of key early learning milestones. Additionally, the standards inform primary grade teachers of the educational trajectory of the state’s youngest learners so that these teachers are even better prepared to serve all children.

The following guidance clarifies the intended use of *the RIELDS*:

## How to Use These Standards

- ✓ To understand the integrated nature of early childhood development
- ✓ To guide early educators in the development of curriculum
- ✓ To inform families about learning milestones
- ✓ To provide a framework for implementing high-quality early childhood programs
- ✓ To support children’s smooth and coordinated transition to kindergarten

## How NOT to Use These Standards

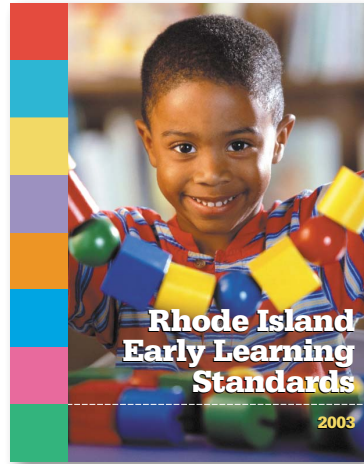
- ✗ As specific teaching practices or materials
- ✗ As a finite checklist of competencies
- ✗ As a stand-alone curriculum or program
- ✗ As a stand-alone assessment tool

*The RIELDS* articulate comprehensive educational expectations for children from birth to five years of age; they have been derived from the latest research and public input. The Rhode Island Department of Education will offer ongoing technical assistance and resources to help administrators, teachers, and families understand and implement them.



## Rhode Island Early Learning Standards (2003)

The Rhode Island Early Learning Standards (RIELS) were originally created in 2003 by the state's Early Childhood Task Force. The 2003 standards were based on the then-latest research on child development and learning, and they provided clear and comprehensive guidance to families, teachers, and administrators on what children should know and be able to do by the time they enter kindergarten. The 2003 standards were of exceptionally high quality and thus provided the foundation for further revisions.



## Rhode Island Early Learning and Development Standards (2013)

Since 2003, the field of early learning has seen dramatic advances. For example, the National Early Literacy Panel (2008) and National Mathematics Advisory Panel (2008) have published groundbreaking reports that summarize the scientific literature on the development of literacy and mathematical skills in very young children. The Center for the Developing Child at Harvard University has also stimulated advancements in the field by articulating the key components of executive functioning—a set of skills that lay the foundation for adaptive, goal-directed thinking and behavior that enable children to override more automatic or impulsive actions and reactions. At the same time, Head Start and Early Head Start have adopted new national standards (2007), and most states have endorsed the K-12 Common Core State Standards for English language arts and mathematics. Rhode Island's revised early learning and development standards incorporate principles from these scientific advances and national-level indicators.

In 2011, Rhode Island was one of nine states to be awarded a federal Race to the Top Early Learning Challenge grant, which provided the state with the resources to revise its early learning standards. The Rhode Island Department of Education and the Executive Office of Health and Human Services worked collaboratively with national experts, Rhode Island's higher education community, and Rhode Island's early childhood stakeholders to articulate this new set of early learning and development standards that meet or exceed nationally recognized criteria and that are uniquely adapted for the children and families in the state.

The 2013 RIELDS extend educational expectations to infants and toddlers, and they are integrated with preschool early learning standards to create a seamless

birth-to-60-month continuum. The infant and toddler standards are set forth with the following important considerations, which are relevant to all learners:

- Early learning occurs within the context of nurturing relationships; it is only through consistent and secure early relationships that children feel safe enough to explore their environments and learn.
- Play—especially with adults and with other children—is a key element for early learning and a primary vehicle through which young children begin to understand themselves in relation to others and to orient themselves to the world and to the delight of learning. Strictly defined, it is any freely sought activity that is pleasing to the “player.” It can be physical (bouncing up and down or riding a tricycle), imaginative (playing “peek-a-boo” or “dress-up”), creative (building with blocks or drawing pictures), social (acting out a dramatic episode), or mental (daydreaming). And it can be any combination of these. Paradoxically, play is the most important work of childhood.
- Early learning is integrated across all areas of development; and while specific domains of learning are identified, each area of learning is influenced by progress in others.
- Children may progress at different rates in each of the domains. While learning is sequential - starting simple (concrete) and becoming more complex (abstract)—development unfolds in fits and starts.
- Early learning is rooted in culture and supported by the family.

## The 2023 Revision

In 2022, the Rhode Island Department of Education opened the 2013 RIELDS for revision. Approaching 10 years since its release, the revision of the 2013 RIELDS is a necessary step in an effort to reflect the latest research on child development and learning, meet or exceed nationally recognized criteria, reflect the needs of children and families in the state, strengthen developmentally appropriate experiences for young children in programs, and support the development of high-quality and standards-aligned curriculum, instruction, and assessment.

The 2023 RIELDS reshape the Science and Social Studies domains for topical alignment with the K-12 Next Generation Science Standards, and the Rhode Island Social Studies Standards. *The RIELDS* revision defines age-ranges (e.g., 0-9 months, 9-18 months) at each milestone to represent variation of timing in which children will meet different developmental milestones. Additionally, the 2023 RIELDS reflects a universal design and is inclusive of all children, with special consideration for multilingual learners, and children with disabilities.

## GUIDING PRINCIPLES

The following Guiding Principles are the foundation for Rhode Island’s Early Learning and Development Standards. These principles speak to the coherence of an educational system grounded in rigorous, evidence-based standards written to support the development of all children. These principles include the following:

- While *the RIELDS* represent expectations for all children, each child will reach the individual learning goals at his or her own pace and in his or her own way.
- *The RIELDS* are appropriate for all children, birth to 60-months, including children who are multilingual learners and children with disabilities
- *The RIELDS* represent the expectations for children’s learning and development and are to serve as a guide for selecting curriculum and assessment tools.
- In order to meet *the RIELDS* individual children will require different types and intensities of support across domains.
- *The RIELDS* are aligned with the K-12 Common Core State Standards and the Head Start Child Development and Early Learning Framework.

The revised early learning and development standards feature one notable change from Rhode Island’s 2003 standards: *The RIELDS* now embed play as an important aspect of learning throughout the document. As such, play is not treated as a specific standard to be met but as the primary means by which children demonstrate early learning accomplishments. It is *through* play that children learn the skills, knowledge, and dispositions that help support their success in later schooling. This philosophy is emphasized throughout the document.

## CORE VALUES

The Core Values articulate values that the state holds true for the implementation of all early learning and development standards in early childhood programs. These values are outlined in the original standards document published in 2003, the 2013 revision, and repeated here:

- Respect and the well-being of children and families will be given the highest priority in the organization and planning of community actions.
- Policymakers will take into consideration and be knowledgeable about the education, care and support of children and families when developing and assessing legislation, regulation, and funding of programs for young children.
- Families will be respected and supported as partners in the education and development of their child.
- Teachers, families, and children will use play as a way to develop the whole child, generate knowledge of the larger world, and support the development of qualities for lifelong learning.
- Educators will base their decisions upon current knowledge of predictable sequences of child development and how children learn, the differences among children and families, and subjects that are related to the interests of children.
- Child development theory will be the foundation for teaching—recognizing that learning is sequential, dependent upon experience, and based on knowledge of the whole child, including the child’s culture and individual characteristics.
- All children will be regarded and respected as competent individuals who differ in, their approaches to learning/temperaments their home environments, and the ways that they understand and represent their world.
- Children will learn in an environment where their physical and psychological needs are met so they feel safe, feel valued as unique individuals, and are engaged actively in acquiring new skills and knowledge.
- A child’s sense of responsibility to self and others will be best supported when teachers shape the learning environment in ways that support the development of an involved citizenry.
- Educational programs will be developed in partnership with families, teachers, and the community in order to inspire children to acquire knowledge, build new skills, seek challenges, and develop as citizens.

# ESSENTIAL PRACTICES

The *RIELDS* represent expectations for young children’s learning and continual growth in all areas: intellectual, physical, and emotional. Updated and expanded, they are grounded in foundational knowledge about how young children develop and learn. Research confirms that successful approaches to supporting early learning are based on knowledge of the whole child, including a child’s individual strengths, characteristics, and culture; that learning is dependent upon experiences; that developmental domains are interconnected; that relationships and play are fundamental to a children’s learning; and that the intentionality of teachers and caregivers can greatly enhance growth and development.

## Educating all children:

All children differ in their intellectual, physical, and emotional abilities and potential; and children frequently develop at different rates. Some require a great deal of time and support, (Rhode Island Department of Education, 2012) while others are fiercely independent. Regardless of a child’s pace of development or inherent capacity, research has confirmed that the earliest years are the most critical, particularly for any child who might be struggling: “There is an urgent and substantial need to identify as early as possible those infants and toddlers in need of services to ensure that intervention is provided when the developing brain is most capable of change.” (NECTAC, 2011)

- **Children with disabilities:** *The RIELDS* represent expectations for all children. However specific timelines and indicators may need to be adapted for individual children, particularly those with IEPs. Some children may need more individualized or more intensive instruction than others in order to make progress. Other children may require accommodations to their environment, or they may need adaptive or assistive technology in order to participate in learning experiences that promote progress. Teachers need to understand that all children should be provided with a variety of ways to demonstrate what they know and can do. Differentiating instruction and individualizing its intensity and frequency through a data-based, decision-making process\* will ensure that all children are meeting these important early learning standards.

\* Tracking data and using it to make decisions about how to create learning environments has become a widely mandated set of activities. However, these requirements do not mean that every early childhood teacher and caregiver needs to become a data or computer expert. Far from it. Valuable student data can be gathered in a number of easy and efficient ways. For example, using a notebook to record observations about how a child changes and develops from week to week can generate a valuable “data” profile. “When teachers...track student achievement systematically, they can make adjustments in the educational system that result in real improvements in student achievement.” (Jones & Mulvenon, 2003, p. 13)



- **Supporting multilingual learners:** In Rhode Island, the ethnic diversity within communities also means that young learners bring a wide range of linguistic experiences to their early care and education settings. Children who speak a language other than English in their homes and communities have varying levels of exposure to and competence in English when they enter early care and education programs. While confirming the importance of supporting these children to learn English, *the RIELDS* also recognizes multilingualism as a source of tremendous strength, and its guidelines and indicators promote the continued development and growth of every child’s primary language as the child learns English—thus the term “multilingual learners” (MLLs).

A child’s home language can be thought of as a foundation for the acquisition of English. In fact, research shows that when they have a strong background in their first language, children learn a second language more easily; as well, they have cognitive, academic, personal, and cultural advantages. (Ada & Zubizarreta, 2001; Collier, 1987; Cummins, 1984) In other words, the stronger the foundation in the home language, the better able children are to learn to understand and speak English—and to learn across all domains. Clearly, programs need to ensure the continued development of children’s home language, while promoting their acquisition of English. Additionally, children who are dual language learners should have the opportunity to interact and demonstrate their abilities, skills, and knowledge in any language—English and their home language.

# ESSENTIAL PRACTICES CONTINUED

In addition to differences in ability and language, children come to an early childhood classroom or care setting with widely ranging familial, social, and cultural experiences and expectations. Educators and caregivers face an important challenge in accommodating these differences and creating learning environments that support the growth and development of all children. While no one can be an expert in every field, educators and caregivers can develop collaborative networks that include other area agencies and services designed to support and promote the development of young children. These kinds of partnerships take effort to establish. But since no one individual or agency can “do it all,” collaboration among agencies and services goes far toward enhancing the lives of both children and the educators who serve them. (Human Services, Community Services, 2010)

Because “individuals bring a huge variety of skills, needs, and interests to learning,” (CAST, n.d.) classrooms and care settings are most effective when they reflect the principals of universal design for learning (UDL), which help to guide the development of curricula that “give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone—not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs.” (UDL Guidelines, 2010) The three foundational principles of UDL involve support for (a) “recognition learning” by providing multiple, flexible methods of presentation; (b) “strategic learning” by providing multiple, flexible methods of expression and apprenticeship; and (c) “affective learning” by providing multiple, flexible options for engagement” (National Center on Universal Design for Learning, 2010) Research shows that when UDL principles are applied in the classroom, children become learners who are resourceful and knowledgeable, strategic and goal-directed, and purposeful and motivated. (Hall, Meyer, & Rose, 2010, p. 23.).

In order to provide challenging and developmentally appropriate experiences for all children, educators and caregivers must consider the strengths and needs of each child. Appropriate learning experiences enable each child to achieve at the maximum level of his or her abilities. In sum, developmentally appropriate learning experiences should

- incorporate appropriate adaptations for children diagnosed with disabilities,
- demonstrate knowledge of and respect for the language skills and culture of learners,
- and reflect an understanding of universal design for learning.

## Integrated development

A child’s development does not occur in a straight line. Each domain or specific area of learning identified in *the RIELDS* connects to other domains. Children learn through authentic experiences that include interactions with adults, peers, and materials. As they construct knowledge and learn in one domain, children are influenced by their progress in others. High-quality early learning environments and curricula that focus on the whole child—their intellectual, social, physical, and emotional development—will reflect a knowledge of this “whole-child” process of development and stimulate the integrated, simultaneous learning of knowledge and skills across multiple domains.

## Executive function

In order to organize the early learning and development standards, the process of learning is divided into domains—even though learning for the young child is not isolated by domains but occurs across areas. Advances in the field of neuroscience have provided insight into how a child develops across these domains, emphasizing a particular set of cognitive skills referred to as “executive function.” These skills are important for planning, problem-solving, and regulating emotions:

- Working memory: the ability to hold information in one’s mind and to manipulate it to perform tasks
- Inhibitory control: the ability to filter impulses, resist temptation, and sustain attention on a task
- Cognitive flexibility: the ability to adjust to changes in demands, priorities, and perspectives

Taking turns, getting along with others, controlling emotions, following instructions, and being self-directed—all executive functions—are critical skills for school readiness. (Blair, 2009)







# ESSENTIAL PRACTICES CONTINUED

## The importance of relationships

Healthy development and successful learning are dependent upon the positive relationships and interactions that children have with nurturing adults who are consistently present in their lives. In this way, both home and early education environments influence school readiness and early academic success. Children thrive when their relationships promote growth through a series of significant interactions that:

- Build on a child’s own interests, capabilities, and initiative;
- Shape the child’s self-awareness; and,
- Are tailored to a child’s unique personality. (National Scientific Council on the Developing Child, 2004)

Relationships affect all aspects of a child’s development. Early relationships lay the foundation for later academic and social success. Adults, families, and teachers need to nurture each child’s potential through consistent, positive interactions that promote a child’s self-confidence, sense of safety and stability, and motivation to learn. The early learning and development standards reflect the importance of building these kinds of relationships.

## The necessity of intentional teaching

How a child learns varies from child to child and also varies over time. Children learn best when teachers purposefully support children’s self-guided discovery through play, which then allows children to construct their own knowledge and develop skills through exploration and experience, including the experience of interacting with their peers. (Epstein, 2007) Play allows children to learn the skills, knowledge, and dispositions that support success in later schooling. Several types of play foster early learning:

- Social play, which advances cooperation and sharing
- Constructive play, which allows children to explore objects and discover patterns
- Physical play, which provides opportunities for gross and fine motor development
- Expressive play, which supports the expression of feelings
- Fantasy play, which encourages the development of the imagination



Teachers positively influence children’s learning outcomes when they do two things: when they act in a full awareness of the importance of intentionality: that is, when they “act with knowledge and purpose to ensure that young children acquire the knowledge and skills (content) they need to succeed in school and in life”; (Epstein, 2007) and then, when they understand the ways that play facilitates progress toward each domain’s learning goals and thus incorporate play into their intentional strategies.

# ORGANIZATION OF *THE RIELDS*

Rhode Island's Early Learning and Development Standards are organized into domains, components, learning goals, and indicators.

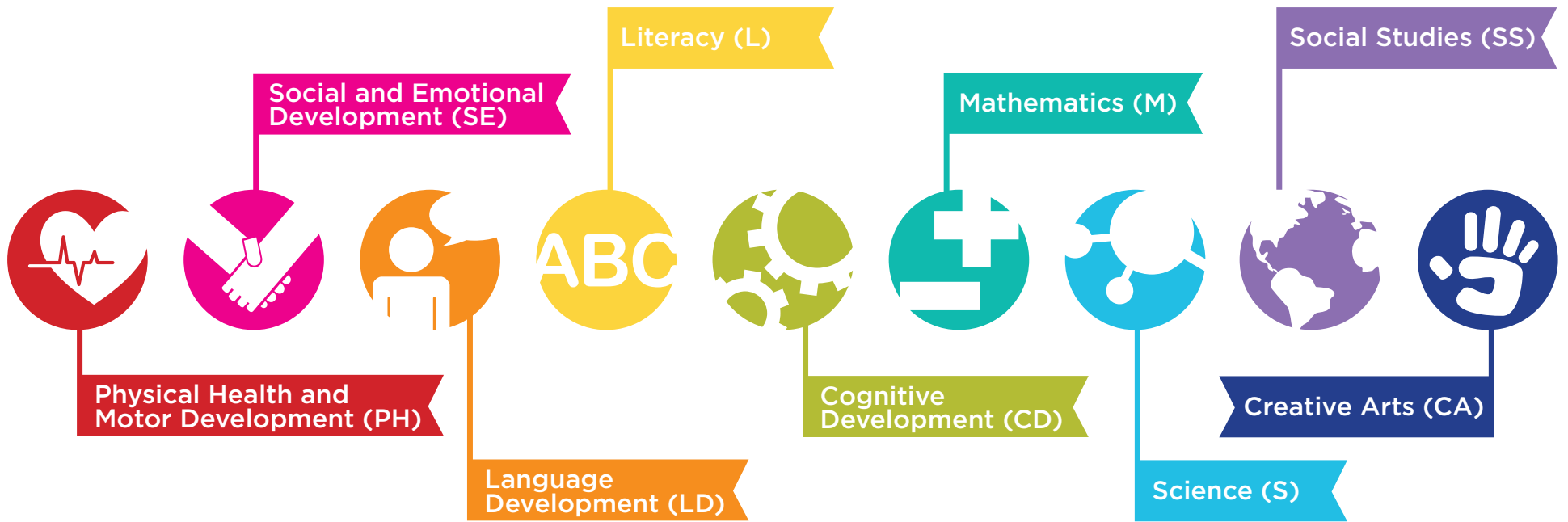
**Domains** represent the broad areas of early learning.

**Components** are specific areas within a domain. For example, the domain of physical health and motor development is divided into three components: health and safety practices, gross motor development, and fine motor development.

**Standards** state those general categories of competencies, behaviors, knowledge, and skills that children develop in increasing degrees and with increasing sophistication as they grow. For example, the gross motor development component includes two core ideas:

- a) Children develop large muscle control, strength, and coordination
- b) Children develop traveling skills

The standards remain the same throughout childhood, although how they are realized changes and becomes more complex as children grow and develop.



Domains are represented by this series of icons

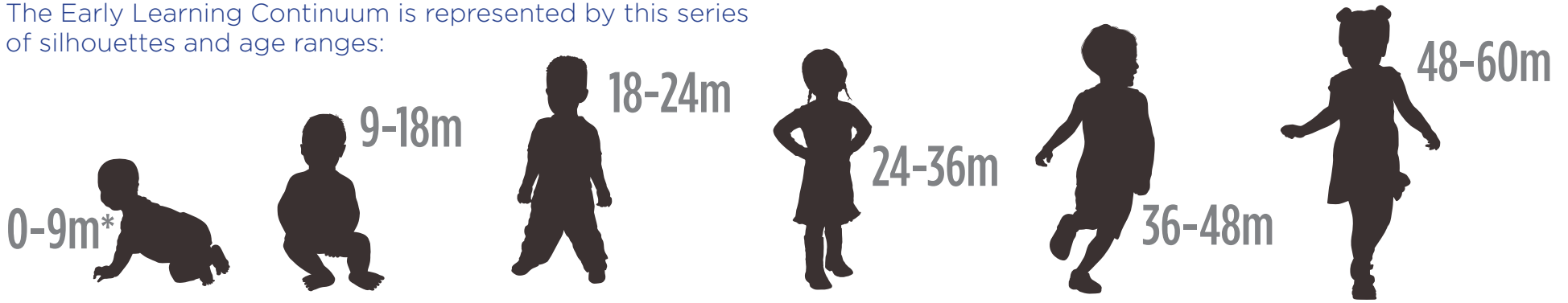
# ORGANIZATION OF *THE RIELDS* CONTINUED

**Examples** establish the specific developmental benchmarks for the competencies, behaviors, knowledge, and skills that most children possess or exhibit at a particular age for each learning goal. Seen altogether, the indicators depict the progression of development over time. While the first set of benchmarks is positioned at nine

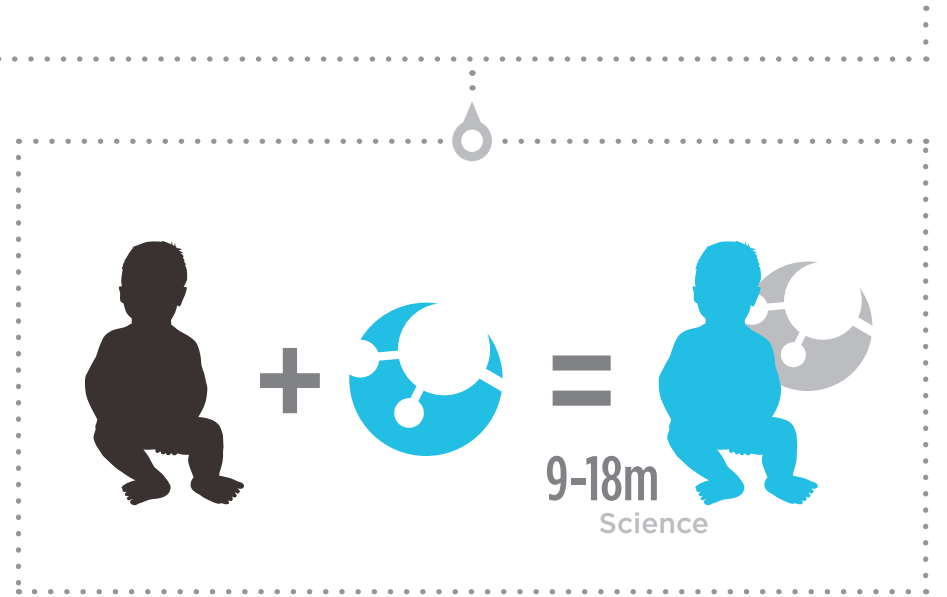
months, it's important to remember that a tremendous amount of growth and development occurs before that age.

**Early Learning Continuum:** The early learning and development standards outline a birth-to-60-month continuum, with six developmental benchmarks:

The Early Learning Continuum is represented by this series of silhouettes and age ranges:



Throughout this resource the 9 domain icons are used in combination with the 6 silhouettes to visually represent the indicators across the document. For example, at right, the 9-18 month silhouette in combination with the science domain icon which helps to easily access information.



A child develops tremendously before this nine-month benchmark. The examples here may identify what the child has already been doing for weeks, if not months. As such, these indicators represent a starting point for gauging the progress of development.

# OUTLINE OF *THE RIELDS*

## Outline of Rhode Island's Early Learning and Development Standards

### Physical Health and Motor Development (PH)

#### PH 1: Health and Safety Practices

- PH 1.a: Children engage in structured and unstructured physical activity.
- PH 1.b: Children become increasingly able to identify unsafe situations and gradually learn strategies for responding to them.
- PH 1.c: Children develop self-help skills.

#### PH 2: Gross Motor Development

- PH 2.a: Children develop large-muscle control, strength, and coordination.
- PH 2.b: Children develop traveling skills.

#### PH 3: Fine Motor Development

- PH 3.a: Children develop small-muscle control, strength, and coordination.
- PH 3.b: Children develop writing and drawing skills.

### Social and Emotional Development (SE)

#### SE 1: Relationships with Others

- SE 1.a: Children develop trust in and engage positively with adults who are familiar and consistently present in children's lives.
- SE 1.b: Children engage in positive relationships and interactions with other children.

#### SE 2: Sense of Self

- SE 2.a: Children develop an awareness of themselves as an individual with unique thoughts, feelings, and perspectives.
- SE 2.b: Children develop the confidence to complete an action successfully or independently.

#### SE 3: Self-regulation

- SE 3.a: Children develop the ability to identify, express, and manage their emotions.
- SE 3.b: Children develop the ability to manage impulses and express emotions appropriately even in challenging situations.

### Language Development (LD)

#### LD 1: Receptive/Interpretive Language

- LD 1.a: Children attend to, understand, and respond to increasingly complex language.

#### LD 2: Expressive Language

- LD 2.a: Children use increasingly complex vocabulary, grammar, and syntax to express thoughts and needs.

#### LD 3: Pragmatics

- LD 3.a: Children understand, follow, and use appropriate social and conversational rules.

#### LD 4. Language Development of Multilingual Learners

- LD 4.a: Multilingual children attend to, understand, and respond to increasingly complex language on a range of topics, including personally meaningful experiences and texts (including digital texts) in English and their home language(s).
- LD 4.b: Multilingual children become increasingly proficient in expressing their thoughts and ideas in English and their home language(s).

### Literacy (L)

#### L 1: Phonological Awareness

- L 1.a: Children demonstrate awareness of spoken words, syllables, and sounds (phonemes).

#### L 2: Print Concepts

- L 2.a: Children develop letter-sound correspondence and identify letters by sounds (phonemes) and names.
- L 2.b: Children demonstrate book awareness and knowledge of basic print conventions; they understand that print carries meaning and spoken words are represented by text.

#### L 3: Comprehension and Interest

- L 3.a: Children show interest in and an understanding of a variety of literacy experiences.

#### L 4: Literacy Development for Multilingual Learners

- L 4.a: Multilingual children become increasingly engaged in literacy experiences in English and their home language(s).

#### L 5: Emergent Writing

- L 5.a: Children use a combination of drawing, dictating, and writing to show knowledge of writing conventions and demonstrate writing as a means of communication.



# OUTLINE OF *THE RIELDS* CONTINUED

## Cognitive Development (CD)

### CD 1: Logic and Reasoning

CD 1.a Children apply strategies and draw upon past knowledge and experiences to meet goals and solve problems.

### CD 2: Memory and Working Memory

CD 2.a Children hold information in their mind and manipulate it to perform tasks.

### CD 3: Attention and Inhibitory Control

CD 3.a Children's skills increase in filtering impulses and sustaining attention on a task.

### CD 4: Cognitive Flexibility

CD 4.a Children's skills increase at adjusting to changes in demands, priorities, and perspectives.

## Mathematics (M)

### M 1: Number Sense and Quantity

M 1.a Children develop number recognition and counting skills and learn the relationship between numbers and the quantity they represent.

### M 2: Number Relationships and Operations

M 2.a Children learn to use numbers to compare quantities and solve mathematical situations.

### M 3: Classification and Patterning

M 3.a Children learn to order and sort objects by common attributes, to identify patterns, and to predict the next sequence in a pattern.

### M 4: Measurement, Comparison, and Ordering

M 4.a Children learn to measure objects by their various attributes to make comparisons.

### M 5: Geometry and Spatial Sense

M 5.a Children learn to identify shapes and their attributes, solve problems using shapes, and explore the positions of objects in space.

## Science (S)

### S 1: Scientific Practices and Application

S 1.a: Children are increasingly able to engage with the inquiry process by developing questions, planning and carryings out investigations, collecting and analyzing data, generating and sharing findings and ideas, and using and applying new knowledge to solve problems.

### S 2: Physical Science

S 2.a: Children gain increasing knowledge of basic concepts related to the properties of objects and materials, forces and motion, and energy (light and sound).

### S 3: Earth and Space Science

S 3.a: Children gain increasing knowledge of the features of earth and space, the components of weather, and how all living things depend on natural resources to survive.

### S 4: Life Science

S 4.a: Children begin to learn about the characteristics , needs, and life cycles of living things and how they get their needs met within a particular environment.

## Social Studies (SS)

### SS 1: Civics & Government

SS 1.a: Children develop awareness that care of the community through personal responsibility, agreed-upon rules, and conflict resolution are important components of a fair and just society.

### SS 2: Economics

SS 2.a: Children demonstrate increasing knowledge of basic economic concepts such as supply and demand, occupations, and currency.

### SS 3: History

SS 3.a: Children develop an understanding of the passage of time as it relates to historical changes in events, people, and the world.

SS 3.b: Children gain awareness of themselves and others as members of diverse families, communities, and cultures.

### SS 4: Geography

SS 4.a: Children demonstrate knowledge of geographical concepts of location and physical characteristics of the environments in which they live.

## Creative Arts (CA)

### CA 1: Experimentation and Participation in the Creative Arts

CA 1.a: Children gain an appreciation for and participate in the creative arts. related to music & movement, drama, and the visual arts.





# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

2023

The emphasis in this domain is on physical health and motor development as an integral part of children's overall well-being. The healthy development of young children is directly related to practicing healthy behaviors, strengthening large and small muscles, and developing strength and coordination. As their gross and fine motor skills develop, children experience new opportunities to explore and investigate the world around them. Conversely, physical health challenges can impede a child's development and are associated with poor child outcomes. As such, physical development is critical for development and learning in all other domains. The components within this domain address health and safety practices, gross motor development, and fine motor development.

Children with physical challenges may demonstrate alternate ways of meeting gross and fine motor goals; for example, by pedaling an adaptive tricycle, navigating a wheelchair, or feeding themselves with a specialized spoon. Children with disabilities may meet these same goals in a different way, often at a different pace, with a different degree of accomplishment, or in a different order than their peers. When observing how children demonstrate what they know and can do, teachers must consider appropriate adaptations and modifications, as necessary. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the physical health and motor development of all children.

**Remember:** While this domain represents general expectations for physical health and motor development, each child will reach the individual standards at their own pace and in their own way.

- PH 1: Health and Safety Practices
- PH 2: Gross Motor Development
- PH 3: Fine Motor Development





# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

## Component 1: Health and Safety Practices

**Standard 1.a:** Children engage in structured and unstructured physical activity.

By the following age ranges, children typically, for example:



**0-9m**

- › Sustain physical activity for at least three to five minutes at a time
- › Participate in simple movement games with an adult (e.g., following a moving object or person with their eyes or body)



**9-18m**

- › Participate in active physical play with an adult
- › Watch and often run when they see older children running
- › Attempt to try new games and toys
- › Stand with feet wide apart and sway to the sound of music



**18-24m**

- › Wield larger toys with some accuracy (e.g., pounding on a pegboard and pegs or on a pounding board)
- › Back into a chair to sit down
- › Squat while playing
- › Carry a large toy while walking or playing
- › Run after older children who are running



**24-36m**

- › Sustain physical activity for at least 15 minutes at a time for at least 30 minutes total each day
- › Participate in outdoor play
- › Try new games and toys without assistance
- › Actively participate in games and dances



**36-48m**

- › Carry bags or objects over short distances
- › Practice kicking, throwing, and running



**48-60m**

- › Increase their amount of play and activity, using more muscles and for longer periods of time (e.g., at least 60 minutes total each day)



All children have built-in capacities to attain developmental goals in multiple ways and under varying conditions.

- Neurons to Neighborhoods



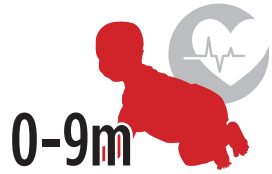


# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

## Component 1: Health and Safety Practices

**Standard 1.b:** Children become increasingly able to identify unsafe situations and gradually learn strategies for responding to them.

By the following age ranges, children typically, for example:



0-9m

- › Express discomfort or anxiety in stressful situations
- › Demonstrates a recognition of the difference between their primary caregiver and a stranger



9-18m

- › Sometime respond appropriately to redirection given by an adult caregiver



18-24m

- › Respond appropriately to redirection by adults unless too caught up in a game or emotion
- › Demonstrate a beginning understanding when adults communicate “stop” or “danger” in their home language by stopping or listening to adults
- › Hold hands briefly with adults when walking but often break contact when distracted by another person or object



24-36m

- › Recognize or identify some harmful or unsafe objects and situations
- › Stop a behavior in response to direction by an adult
- › Understand and participate in the routine of holding hands with an adult when walking in public places
- › Seek an adult’s help in some unsafe or dangerous situations
- › Follow emergency routines after adult instruction (e.g., fire drills)



36-48m

- › Recognize unsafe situations and tell an adult; alert adult when another child is in a dangerous situation
- › Understand the difference between “safe touch” and “unsafe touch,” especially if previously instructed
- › Communicate what the consequences are of unsafe behaviors
- › With adult assistance, look both ways before crossing the street



48-60m

- › Follow safety rules with adult assistance
- › Recognize symbols or signs for danger (e.g., poison labels) and avoid those objects or areas
- › Understand the consequences of not following rules related to safety



Play is the answer to the question, how does anything new ever come about?

- Jean Piaget





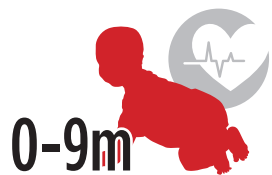


# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

**Component 1:** Health and Safety Practices

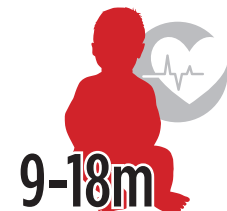
**Standard 1.c:** Children develop self-help skills.

By the following age ranges, children typically, for example:



**0-9m**

- › Fuss or cry when hungry and quiet down when picked up to be fed in a timely manner
- › Coordinate sucking and swallowing
- › Assist with self-feeding by holding a bottle or breast; turn their head away when full
- › Explore food with their hands and fingers (e.g., crackers and other easy-to-handle foods)
- › Accept most basic care routines administered by adults (e.g., gum cleansing or nose wiping)
- › Relax during bathing routines
- › Babble or coo after diapering
- › Indicate their needs and wants (e.g., wanting food or a dirty diaper to be changed)



**9-18m**

- › Point to food when wanting more
- › Feed themselves finger foods
- › Drink from a cup with some spilling
- › Drink from a straw
- › Use a spoon with some spilling
- › Accept more involved care routines administered by adults (e.g., tooth brushing)
- › Participate in handwashing with assistance
- › Participate in dressing or attempt to dress themselves
- › Remove some clothing
- › Use signs, body language, or vocalizations to seek out help from an adult



**18-24m**

- › Feed themselves with spoon and fork (with some spilling) if early self-help skills are valued and taught in their family culture
- › Drink from a cup (with some spilling) if early self-help skills are valued and taught in their family culture
- › Participate in some self-teeth-brushing while an adult is helping them brush their teeth
- › Indicate choices in clothes and shoes by gesturing or using simple words
- › Have limited control over bowels and bladder
- › Use a tissue when offered by an adult to wipe nose, face, or hands



**24-36m**

- › Understand the difference between food and non-food items
- › Recognize when foods are new to them and choose whether to taste or not
- › Cooperate and assist with tooth brushing
- › Wash hands with assistance
- › Attempt dressing and undressing
- › Sit on a toilet
- › Obtain and use tissues to wipe their nose, face, or hands
- › Indicate when not feeling well



**36-48m**

- › Help with mealtime routines, such as setting a table
- › Brush their teeth with assistance from an adult
- › Wash and dry hands with verbal prompts and support
- › Use a toilet
- › Cover their mouth when coughing
- › Dress or undress with minimal assistance
- › Put their shoes on but may need assistance tying them
- › Choose their own clothes to wear



**48-60m**

- › Help in preparing snacks and meals
- › Demonstrate independence in personal self-care skills (e.g., washing hands, brushing teeth)
- › Dress or undress
- › Manage zippers, buttons, buckles, and Velcro
- › Tell an adult caregiver when tired

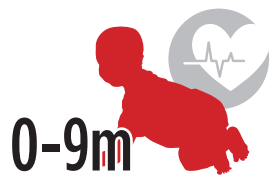


# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

## Component 2: Gross Motor Development

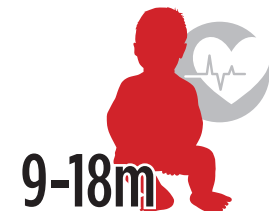
**Standard 2.a:** Children develop large-muscle control, strength, and coordination.

By the following age ranges, children typically, for example:



**0-9m**

- › Reach and play with toys while sitting
- › Reach for objects and bring them to their mouth
- › Pound on a table and other objects
- › Roll both ways (front to back and back to front)
- › Get into sitting position without help while lying down or crawling
- › Sit without support



**9-18m**

- › Squat to pick up toys or other objects
- › Jump with feet apart
- › Carry a toy while walking
- › Stand on one foot with assistance
- › Pull up to a standing position



**18-24m**

- › Bend or stoop over to pick up a toy or other object
- › Pull toys behind themselves
- › Climb onto and off couches, chairs, large rocks, or logs
- › Roll a large ball
- › Toss a ball into a large container
- › Sit on and move small-wheeled riding toys



**24-36m**

- › Play "catch" using a large rubber ball
- › Throw underhand with some direction
- › Climb on outdoor play equipment



**36-48m**

- › Pedal a tricycle
- › Aim and throw a ball overhand toward a target
- › Bounce a ball
- › Hit a stationary ball with a plastic or foam bat
- › Use arms and legs in a coordinated manner to "pump" on a swing
- › Jump off a bottom step or over small objects with two feet
- › Fill and carry large containers across the yard or room, setting down frequently or with another child's or adult's support



**48-60m**

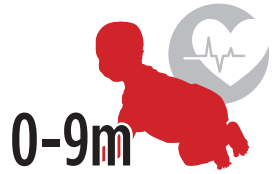
- › Catch a small ball with two hands
- › Bounce a ball and catch it
- › Aim and throw or kick a ball with some accuracy
- › Pull another child in a wagon on a path
- › Move up and down on a climbing structure and hangs from a bar
- › Fill and carry a large container with sand or water across the yard or room



# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

**Component 2:** Gross Motor Development  
**Standard 2.b:** Children develop traveling skills.

By the following age ranges, children typically, for example:



**0-9m**

- › Shift between lying down, sitting, and balancing on their hands and knees
- › Crawl



**9-18m**

- › Move from one place to another by walking
- › Sometimes run instead of walk
- › Walk upstairs holding an adult's hand or crawl upstairs on hands and knees



**18-24m**

- › Run sturdily
- › Walk up steps with some help
- › Walk backwards
- › Walk on tiptoes



**24-36m**

- › Change direction while walking or running
- › Stop suddenly after running (displaying increased coordination and regulation of large muscles)
- › Climb upstairs using alternating feet; walk downstairs, placing both feet on one step before approaching each subsequent step down
- › Jump forward at least six inches



**36-48m**

- › Move in, under, and over objects in the environment with ease
- › Run up to a ball and kick it while maintaining balance
- › Walk or run around obstacles and corners
- › Walk up and down stairs, alternating feet
- › Understand the position or orientation of their body to other objects and people



**48-60m**

- › Hop forward on one foot without losing balance
- › Walk along a beam or edge
- › Gallop
- › Skip
- › Run with control and balance, making quick turns without losing speed and quick stops
- › Demonstrate how their body can move forward, backward, left and right
- › Demonstrate how their body can move fast or slow



You have brains in your head. You have feet in your shoes. You can steer yourself in any direction you choose. You're on your own, and you know what you know. And you're the guy [girl] who'll decide where to go.

- Dr. Suess



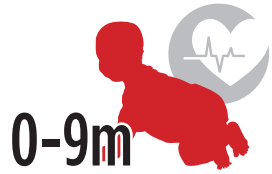


# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

## Component 3: Fine Motor Development

**Standard 3.a:** Children develop small-muscle control, strength, and coordination.

By the following age ranges, children typically, for example:



**0-9m**

- › Hold onto a toy when it is handed to them
- › Reach for, grasp, and shake things
- › Bring hands and objects to their mouth
- › Transfer a toy from one hand to another
- › Pat, shake, or hit objects
- › Mimic a hand clap or wave



**9-18m**

- › Turn the pages of books and point to pictures while being read to
- › Hold objects in both hands
- › Pick up very small objects with their index finger and thumb
- › Bang two toys together
- › Play pat-a-cake without much help (such as someone moving their hands for them)
- › Begin to stack two to three blocks



**18-24m**

- › Open cabinets, drawers, and boxes
- › String large beads
- › Turn containers over to empty out the contents
- › Remove lids from containers
- › Stack four to six large blocks/cubes
- › Attempt snipping with scissors



**24-36m**

- › String large beads onto shoelaces
- › Turn knobs and unscrew lids, put lids on post, unwrap candy, etc.
- › Put three or four pieces into a puzzle board
- › Dig and scoop sand or water
- › Use scissors with adult support



**36-48m**

- › String medium-sized beads onto shoelaces
- › Continues to fit together manipulatives and connecting toys (e.g., Legos, bristle blocks)
- › Use scissors with purpose
- › With adult support, pour milk or spoon out fruit
- › With adult support, zips clothes



**48-60m**

- › Fold a piece of paper with accuracy and symmetry
- › Works on puzzles of 10 or more pieces
- › Use simple tools (e.g., stapler, hole punch, scissors, tape dispenser)
- › Holds paper and makes precise cuts to cut out a square
- › Button and zip clothes

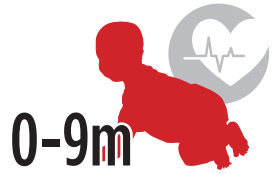


# PHYSICAL HEALTH AND MOTOR DEVELOPMENT

**Component 3:** Fine Motor development

**Standard 3.b:** Children develop writing and drawing skills.

By the following age ranges, children typically, for example:



**0-9m**

- › Grasp objects with their thumb, index, and middle fingers or other adaptive method (e.g., using pincer grip)
- › Bring their hands to their midline (e.g., moving hands towards each other over the middle of their body)



**9-18m**

- › Grab and hold large writing objects, such as crayons, with their whole fist or other adaptive method
- › Scribble spontaneously on paper



**18-24m**

- › Holds large writing objects, such as crayons, with a variety of writing grips, and uses with more control.
- › Make spontaneous dots, lines, and wobbly circles when painting or drawing
- › Fold paper approximately in half



**24-36m**

- › Hold a pencil in an approximate writing grip or other adaptive method
- › Attempt to copy a drawn circle
- › Attempt to draw a cross
- › Attempt to use a horizontal and vertical stroke



**36-48m**

- › Hold a regular pencil writing grip or other adaptive method
- › Use horizontal and vertical stroke
- › Make a cross with a marker or pencil
- › Draw a circle
- › Write letter or numeral-like forms



**48-60m**

- › Draw recognizable shapes
- › Write some letters and numerals using a writing grip or other adaptive method



# SOCIAL AND EMOTIONAL DEVELOPMENT

2023

Social and emotional development encompasses young children’s evolving capacity to form close and positive adult and peer relationships; to actively explore and act on the environment in the process of learning about the world around them; and express a full range of emotions in socially and culturally appropriate ways. These skills, developed in early childhood, are essential for lifelong learning and positive adaptation. A child’s temperament (traits that are biologically based and that remain consistent over time) plays a significant role in development and should be carefully considered when applying social and emotional standards. Healthy social and emotional development benefits from consistent, positive interactions with educators, parents/primary caregivers, and other familiar adults who appreciate each child’s individual temperament. This appreciation is key to promoting positive self-esteem, confidence, and trust in relationships. The components within this domain address children’s relationships with others—adults and other children—their personal identity and self-confidence, and their ability to regulate their emotions and behavior.

All children, including multilingual learners and children with disabilities may demonstrate alternate ways of meeting social and emotional goals; for example, children with visual impairments and/or children from other cultures may vary in direct eye contact and demonstrate their interest in and need for human contact in other ways, such as through acute listening and touch. Children with disabilities may initiate play through use of subtle cues, at a different pace or with a different degree of accomplishment. In general, the presence of a disability may cause a child to demonstrate alternate ways of meeting social and emotional goals. The goals for all children are the same, even though the path and the pace toward realizing the goals may be different. When observing how children respond in relationships, teachers must consider appropriate adaptations and modifications, as necessary. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the social and emotional development as well as the cultural and experiential backgrounds of all children.

**Remember:** Healthy social and emotional development is aligned with cross-domain learning and development. Children’s development of a Self-Awareness and Competence, for example, is strongly linked to their learning in Social Studies (e.g., Civics & Government, History). Their development of emotional recognition and regulation contributes to their development of cognitive skills (e.g., Attention and Inhibitory Control) and their abilities to persist at learning activities in language, literacy, mathematics, and science. Successful experiences in the content areas also positively contribute to children’s social/emotional development. While this domain represents general expectations for social and emotional development, each child will reach the individual standards at their own pace and in their own way.



- SE 1: Relationships with Others
- SE 2: Self-Awareness and Competence
- SE 3: Emotional Recognition and Regulation

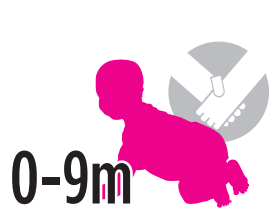


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 1: Relationships with Others

**Standard 1.a:** Children develop trust in and engage positively with adults who are familiar and consistently present in children's lives.

By the following age ranges, children typically, for example:



0-9m

- › Socialize with preferred adults by reciprocally smiling, laughing, or vocalizing
- › “Converse” with familiar adults by imitating or making faces at adults who make faces at them
- › Relax when picked up and held by a familiar adult
- › Search for an adult caregiver who might be out of sight
- › Engage in turn-taking interactions, such as peek-a-boo
- › Repeat actions that elicit social responses from others



9-18m

- › Imitate adult behavior by repeating and practicing through play (e.g., sweeping with a toy broom, “talking” on a cell phone)
- › Use gestures, signs, body language, and/or vocalizations to seek out help from a preferred adult
- › Participate in back-and-forth games with adults
- › Seek comfort from a preferred adult when tired or hungry (coregulation)
- › Expand their exploration of their environment in the presence of trusted adults, and regularly check in (visually or physically) with these adults when experiencing stress or uncertainty
- › From time to time look to familiar adult for reassurance when a stranger is present



18-24m

- › Imitate by continuing to repeat actions they have seen long after they have seen them
- › Initiate play and interactions with familiar adults (e.g., pretending to drive a car or bake a cake)
- › Interact with adults to meet needs and wants, communicating through gestures, signs, facial expressions, and/or simple words
- › Continue to seek out the primary adults in their life as their secure base (using simple words as well as regular visual or physical contact) while playing or exploring the environment and when uncertain (coregulation)
- › Look to and seek approval non-verbally when engaging in a difficult task



24-36m

- › Seek adult assistance when challenged
- › Demonstrate affection for familiar adults
- › Seek comfort from an adult after falling down or getting hurt (coregulation)
- › Interact with adults to solve problems or communicate about experiences or ideas
- › Seeks adult attention when exploring or trying a new skill



36-48m

- › Seek approval from adults
- › Separate from trusted adults with minimal distress when in familiar settings or with familiar and trusted adults
- › Engage in back-and-forth conversations with trusted adults
- › Express joy with trusted adult when demonstrating an achievement or mastery in play (e.g., excitement over building a tall block tower; walking across the balance beam with limited assistance)



48-60m

- › Maintain well-being and emotional composure when separated from parents or primary caretakers when in familiar settings or with familiar and trusted adults
- › Have a close relationship with a consistent non-parental caregiver, showing interest in the adult's feelings, preferences, and well-being and sharing their experiences (coregulation)
- › Participate in longer and more reciprocal interactions (when interacting with familiar adults in role play, games, or structured activities) and take greater initiative in social interaction (including turn-taking)

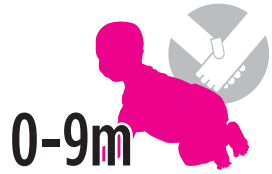


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 1: Relationships with Others

**Standard 1.b:** Children engage in positive relationships and interactions with other children.

By the following age ranges, children typically, for example:



**0-9m**

- › Babble and smile to show their interest in other children
- › Intently watch other babies and children, especially their faces
- › Track the activity of other children and notice/move toward others when hearing sounds of excitement
- › Reach out to touch other children's hair, face, etc.



**9-18m**

- › Engage in positive interactions with other children while supervised
- › Imitate and respond to other children's actions and behaviors
- › Play alone or engage in parallel play (e.g., play next to but not directly involved in another child's play)
- › Recognize and respond differently to younger children



**18-24m**

- › Demonstrate interest or concern for a peer who is hurt, fallen, or in distress
- › Recognize the idea of possessions (e.g., acting as though they own something) and demonstrate an understanding of "mine" and "not mine"
- › Predominately use parallel play (next to others) while trying out associative play (sharing toys or commenting on the play of others)



**24-36m**

- › Watch and copy other children's play activities
- › Seek assistance from an adult caregiver in resolving conflicts with other children
- › Understand how to take turns during play with other children, with adult guidance and assistance
- › Participate in associative play with other children (e.g., engaging in separate play activities while occasionally sharing toys or commenting on another child's play)



**36-48m**

- › Share and take turns using materials
- › Suggest solutions to conflicts, with adult guidance and assistance
- › Initiate play and conversations with other children
- › Participate in pretend play with other children
- › Express how another child or storybook character might feel
- › Notice and show concern for peers' feelings
- › Comfort peers when they are hurt or upset, with adult guidance and assistance



**48-60m**

- › Make decisions with other children, with adult guidance and assistance
- › Demonstrate consideration for and cooperation with other children
- › Prefer to play with one or two special friends
- › Suggest solutions to conflicts
- › Demonstrate an ability to compromise when working or playing in a group
- › Sustain interactions with friends for increasing periods of time
- › Successfully enter into play when a group of children are already involved
- › Can identify the causes of other children's emotions (e.g., "they are sad because . . .")



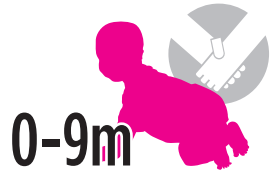


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 2: Self-Awareness and Competence

**Standard 2.a:** Children develop an awareness of themselves as an individual with thoughts, feelings, and perspectives that may differ from others.

By the following age ranges, children typically, for example:



**0-9m**

- › Explore their own hands and feet
- › Demonstrate a recognition of themselves in a mirror
- › Respond to their own name



**9-18m**

- › Explore various play materials and show preferences for specific books, toys, or food
- › Demonstrate displeasure when unable to exert influence on events
- › Indicate their dislike by saying “no” or through some other method (e.g., shaking their head or turning their head/body away)
- › Make simple choices



**18-24m**

- › Recognize some body parts (e.g., pointing to eyes, ears, or nose when asked)
- › Refer to themselves by name
- › Use “me” and “mine” in reference to themselves and to objects
- › Express preferences for certain toys or objects
- › Enjoy playing alone for short periods of time
- › Try to do some things without help



**24-36m**

- › Become aware of and asserts ownership (e.g., “This is mine”; and “that is yours.”)
- › Demonstrate preferences and choices for people, toys, or activities
- › Recognize a picture of themselves (e.g., by pointing or saying “me”)
- › Describe some personal characteristics (e.g., hair color)
- › Provide their first and last names when asked



**36-48m**

- › Differentiate themselves from others based on characteristics they use to describe themselves, such as “shy” or “smart.”
- › Differentiate themselves from others in terms of specific abilities (e.g., “I am a fast runner,” or “I am a good climber.”)
- › Describes physical attributes among peers and adults
- › Has a clear sense of people, self, and those who are different



**48-60m**

- › Describe own and others’ personal characteristics (e.g., “My hair is red; your hair is black.”)
- › Understand that other people have different physical characteristics as well as different thoughts, beliefs, ideas, and feelings.
- › Demonstrate an awareness of their own likes and preferences

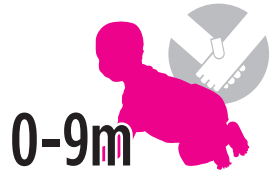


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 2: Self-Awareness and Competence

**Standard 2.b:** Children develop the confidence to complete an action successfully or independently.

By the following age ranges, children typically, for example:



**0-9m**

- › Demonstrate interest in objects or people
- › Accept new toys or objects with interest
- › Reach for objects of interest
- › Focus on objects and people of interest for longer periods of time



**9-18m**

- › Show pleasure at their own actions
- › Show attachment to or preference for specific toys
- › Ask for similar activities to be repeated over and over
- › Attempt to perform self-care activities independently of adult help
- › Recognize their ability to influence their surroundings (e.g., standing on a table or feeding chair to indicate hunger to an adult)



**18-24m**

- › Alternate between doing things independently and wanting help or comfort
- › Repeat activities and words and songs over and over
- › Participate in solitary pretend play (e.g., wearing hats, talking on a phone)
- › Help with simple tasks (e.g., picking up toys)



**24-36m**

- › Demonstrate joy in their own accomplishments (e.g., throwing away a napkin, flushing a toilet)
- › Initiate new activities and explore new materials
- › Demonstrate interest and pride in handling personal care routines (e.g., removing coat) with minimal assistance



**36-48m**

- › Choose materials and activities
- › Participate in new experiences with confidence and independence (e.g., selecting more challenging puzzles)



**48-60m**

- › Resist help and demonstrate a sense of competence (e.g., insisting on dressing themselves, pouring their own juice, etc.)
- › Stay with a task until it is completed
- › Move between independence and dependence in a way that meets their needs for both and that is appropriate for the circumstances

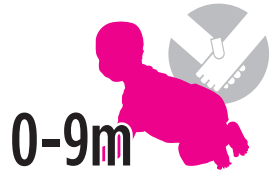


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 3: Emotional Recognition and Regulation

Standard 3.a: Children develop the ability to identify, express, and manage their emotions

By the following age ranges, children typically, for example:



0-9m

- › Demonstrate the ability to self-soothe (calm down) through behaviors such as babbling, thumb/fist sucking, or rocking
- › Calm down when talked to, held, or rocked by a preferred caregiver
- › Express a range of emotions (e.g., joy, excitement, or sadness) through facial expressions, gestures, signs, and/or sound



9-18m

- › Self-soothe when offered a special toy or blanket in combination with caregiver nurturance
- › Look to a trusted adult for comfort when upset or stressed
- › Demonstrate joy, pleasure, and excitement in learning to do new things



18-24m

- › Accept a security toy or blanket to self-soothe
- › Demonstrate familiarity with routines
- › Demonstrate strong emotions, such as anger, through actions (e.g., falling down on the floor and kicking their legs—throwing a “tantrum”) and calm down with caregiver assistance
- › Express emotions (e.g., happiness, sadness, or anger) through singing and pretend play (in addition to “tantrums”)



24-36m

- › Calm themselves down after a temper tantrum in a reasonable amount of time with caregiver assistance
- › Comfort themselves by seeking out a special toy, object, or caregiver
- › Use words to express their emotions



36-48m

- › Are increasingly able to regulate their impulses in certain situations (e.g., waiting their turn for a favored toy)
- › Can express emotions using words, signs, or other communication methods
- › Take pride in their accomplishments
- › Continue to use physical ways of expressing themselves when their feelings are intense (e.g., throwing things, pounding)



48-60m

- › React appropriately to strong emotions most of the time
- › Persist at a difficult task with decreasing amounts of frustration
- › Can name emotions using words, signs, or other communication methods

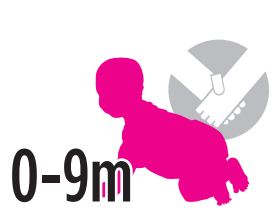


# SOCIAL AND EMOTIONAL DEVELOPMENT

## Component 3: Emotional Recognition and Regulation

**Standard 3.b:** Children develop the ability to manage impulses and express emotions appropriately even in challenging situations.

By the following age ranges, children typically, for example:



0-9m

- › Exhibit the ability to wait for a desired object or person



9-18m

- › Amuse themselves for a short period of time
- › Respond to verbal requests to alter their behavior, sometimes continuing with the behavior and sometimes accepting the redirection
- › Say “no” to express their unwillingness (or sign “no” if they have been taught to sign)



18-24m

- › Respond to redirection most of the time
- › Once redirected, change focus to the new object, person, or play
- › Participate in routines with adult guidance



24-36m

- › Follow simple rules most of the time
- › Control impulses (e.g., walking around—rather than through—a puddle when directed)
- › Adapt their behavior to the environment (e.g., shifting from an “outside voice” to an “inside voice”)
- › Adjust to changes in daily routines with preparation and adult assistance



36-48m

- › Usually follow rules and expectations in familiar settings
- › Adjust to changes in routines and activities
- › Ask or wait for adult permission before doing something they are unsure about
- › Use materials with purpose, safety, and respect
- › Can delay having desires met (e.g., agreeing to the use of a timer to indicate their turn for a computer)
- › Stop an engaging activity to transition to another less desirable activity with adult guidance and support



48-60m

- › With adult assistance, demonstrate control over actions, words, and emotions in response to a situation
- › Follow rules and apply them to new situations and environments (e.g., putting their coat in a cubby at school but hanging it on a peg at home)
- › Participate in group activities for increasing amounts of time
- › Consistently demonstrate the ability to stop an engaging activity to transition to another less desirable activity



The task of emotion regulation is not simply a matter of learning to suppress emotions. It is more broadly one of deploying emotions effectively in relationships, while playing and learning, and in a wide range of settings.

- Neurons to Neighborhoods





# LANGUAGE DEVELOPMENT

2023

The development of children’s early language skills is critically important for their future academic success. Language development indicators reflect a child’s ability to understand increasingly complex language (receptive language skills), a child’s increasing proficiency when expressing ideas (expressive language skills), and a child’s growing understanding of and ability to follow appropriate social and conversational rules. The components within this domain address receptive and expressive language, pragmatics, and English language development specific to multilingual learners.

For children who live in households where the primary spoken language is not English, this domain also addresses the language development of multilingual learners. Unlike most of the other progressions in this document, however, specific age thresholds do not define the indicators for English language development (or for development in any other language). Multilingual learners are exposed to their second language for the first time at different ages. As a result, one child may start the process of developing second-language skills at birth and another child may start at four, making the age thresholds inappropriate. So instead of using age, The RIELDS use research-based stages to outline a child’s progress in English language development. It is important to note that there is no set time for how long it will take a given child to progress through these stages. Progress depends upon the unique characteristics of the child, their exposure to English in the home and other environments, the child’s motivation to learn English, and other factors.

Children with disabilities may demonstrate alternate ways of meeting the goals of language development. If a child is deaf or hard of hearing, for example, that child may demonstrate progress through gestures, signs, symbols, pictures, augmentative and/or alternative communication devices as well as through spoken words. Children with disabilities may also demonstrate alternate ways of meeting the same goals, often meeting them at a different pace, with a different degree of accomplishment, and in a different order than their peers. When observing how children demonstrate what they know and can do, the full spectrum of communication options - including the use of multiple languages (e.g., Spanish, American Sign Language), or low- and high-technology augmentative/assistive communication systems - should be considered. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the language development of all children.

**Remember:** When considering Principles of UDL, consider the variation in social and conversational norms across cultures. Crosstalk and eye-contact, for example may have varying degrees of acceptability in different cultures. While this domain represents general expectations for language development, each child will reach the individual standards at their own pace and in their own way.

LD 1: Receptive/Interpretive Language

LD 3: Pragmatics

LD 2: Expressive Language

LD 4: Language Development of Multilingual Learners





# LANGUAGE DEVELOPMENT

## Component 1: Receptive/Interpretive Language

**Standard 1.a:** Children attend to, understand, and respond to increasingly complex language.

By the following age ranges, children typically, for example:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<ul style="list-style-type: none"> <li>› Turn toward familiar voices or sounds</li> <li>› Recognize more than one tone of voice in adults and respond with body movement and sounds</li> <li>› Demonstrate a recognition of names of familiar people and favorite objects</li> <li>› Respond to voices and sounds in the environment</li> <li>› Can be quieted by a calm, familiar voice</li> <li>› Become excited upon seeing familiar signs for nursing or feeding (e.g., bottle)</li> <li>› Startle or cry when there is a loud sound</li> </ul>	<ul style="list-style-type: none"> <li>› Look at what an adult is pointing to and share attention</li> <li>› Identify familiar people or objects when prompted</li> <li>› Understand more words than they can say</li> <li>› Respond appropriately to familiar words, signs, and songs</li> <li>› Follow simple, one-step directions, especially if accompanied by adult gestures and/or signs (e.g., “stop” or “come here”)</li> </ul>	<ul style="list-style-type: none"> <li>› Understand approximately 200 words (receptive language)</li> <li>› Follow one-step directions with few adult gestures and/or signs (e.g., responding to an adult saying, “Please lift your arms.”)</li> </ul>	<ul style="list-style-type: none"> <li>› Demonstrate an understanding of descriptive words</li> <li>› Respond appropriately to others’ comments, questions, or stories</li> <li>› Follow two-step directions that involve familiar experiences and objects (e.g., “Find your shoes and bring them to me.”)</li> </ul>	<ul style="list-style-type: none"> <li>› Demonstrate an understanding of stories, songs, and poems by retelling or relating them to prior knowledge</li> <li>› Demonstrate an understanding of conversations by responding to questions and prompts</li> <li>› Demonstrate an understanding of several hundred words in their home language, including those relating to objects, actions, and attributes encountered in both real and symbolic contexts (conversations and texts)</li> <li>› Distinguish between real and made-up words</li> <li>› Understand increasingly longer and complex sentences, including sentences with two or more phrases or ideas</li> <li>› Successfully follow three-step directions (e.g., “Please, would you get the sponge, dampen it with water, and clean your tabletop?”)</li> </ul>	<ul style="list-style-type: none"> <li>› Demonstrate an understanding of complex statements, questions, and stories containing multiple phrases and ideas</li> <li>› Respond appropriately to a specific and varied vocabulary</li> <li>› Follow detailed, multistep directions (e.g., “Put away the toys in the correct boxes, wash your hands, then come to the table and find your name.”)</li> </ul>



# LANGUAGE DEVELOPMENT

## Component 2: Expressive Language

**Standard 2.a:** Children use increasingly complex vocabulary, grammar, and syntax to express thoughts and needs.

By the following age ranges, children typically, for example:



**0-9m**

- › Experiment with making sounds
- › Engage in babbling (e.g., making consonant sounds followed by a vowel sound)
- › Say “mama” and “dada”
- › Use vocalizations, gestures, signs, and/or facial expressions to communicate needs and wants and to express interest or dislike



**9-18m**

- › Communicate in a way that is understood by most familiar people (e.g., eye glances, gestures, signs, sounds)
- › Produce some words and word-like sounds
- › Use eight to ten individual words to communicate wants, needs, interests, and dislikes
- › Combine words with gestures and/or signs to communicate
- › Use short, telegraphic phrases (of one or two words) to communicate wants, needs, and thoughts
- › Use some pronouns



**18-24m**

- › Communicate basic needs in a way that is understood by many people outside the family or childcare
- › Use “please” and “thank you”
- › Combine words and gestures or signs with expressions (cues) to ensure adults understand their desires or requests (e.g., pointing to the door and saying, “Go outside.”)
- › Hold one-sided conversations with stuffed animals and dolls
- › Start to use the plural forms of nouns and verbs
- › Start to use the past tense of verbs



**24-36m**

- › Communicate basic ideas in a way that is understood by most people
- › Use a vocabulary of more than 100 words in their home language (words, signs, and/or alternative communication), including words for familiar people, objects, and animals and words that describe (adjectives)
- › Expand their vocabulary in their home language (words, signs, and/or alternative communication) by asking others to name unfamiliar objects
- › Use two- and some three-syllable words

*Continued*



**36-48m**

- › Communicate clearly enough to be understood by unfamiliar listeners but may make some pronunciation errors
- › Pronounce new, long, or unusual words if they have modeling and support
- › Use a variety of vocabulary words in their home language (words, signs, and/or alternative communication), including words to express emotions, to talk about position and direction, to describe relations between objects, to describe actions, and to express needs
- › Demonstrate an understanding of the meaning of words by describing the use of familiar objects, talking about categories of objects, using several words to explain the same idea (e.g., synonyms), and relating words to their opposites

*Continued*



**48-60m**

- › Communicate clearly enough to be understood by unfamiliar listeners, with few pronunciation errors
- › Expand their vocabulary with words of increasing specificity and variety in their home language (words, signs, and/or alternative communication)
- › Demonstrate an increasing knowledge of the meanings of words and skill in determining the meaning of unknown words

*Continued*



# LANGUAGE DEVELOPMENT

## Component 2: Expressive Language

**Standard 2.a:** Children use increasingly complex vocabulary, grammar, and syntax to express thoughts and needs.

Continued from previous:

**0-9m**

*See previous*

**9-18m**

*See previous*

**18-24m**

*See previous*

**24-36m**

*Continued from previous*

- › Combine words into simple three- to four-word sentences
- › Use simple adjectives in statements (“big,” “little,” “hard,” “soft”)
- › Use simple adverbs in statements (e.g., “That car goes very fast!”)
- › Combine words into simple three- to four-word sentences
- › Use some plurals appropriately (e.g., distinguishing between “car” and “cars”)
- › Ask “who,” “what,” “why” and “where” questions in their home language (words, signs, and/or alternative communication)

**36-48m**

*Continued from previous*

- › Determine, with modeling and support, the meanings of unknown words by asking questions or using contextual clues, such as pictures that accompany text
- › Experiment with using new words in conversation
- › Use longer, more increasingly complex sentences, including complete four- to six-word sentences
- › Use, with modeling and support, more complex grammar, and parts of speech, including common prepositions, regular plural nouns, correct subject-verb agreement, pronouns, and possessives
- › Continue to ask “who,” “what,” “why,” and “where” questions in their home language (words, signs, and/or alternative communication)

**48-60m**

*Continued from previous*

- › Use increasingly complex, longer sentences, including sentences that combine two or three phrases
- › Use more complex grammar and parts of speech, including prepositions, regular and irregular plural forms of nouns, correct subject-verb agreement, pronouns, possessives, and regular and irregular past tense verbs in their home language (words, signs, and/or alternative communication)







# LANGUAGE DEVELOPMENT

## Component 3: Pragmatics\*

**Standard 3.a:** Children understand, follow, and use appropriate social and conversational rules.

\* "... pragmatics is the study of communicative action in its sociocultural context. Communicative action includes not only speech acts—such as requesting, greeting, and so on—but also participation in conversation, engaging in different types of discourse, and sustaining interaction in complex speech events." (Kasper, 1997)

By the following age ranges, children typically, for example:



**0-9m**

- › Respond to the speech of others by looking toward the speaker
- › Initiate and engage in simple back-and-forth interactions with others by using facial expressions, vocalizations, gestures, and/or signs
- › Express enjoyment and a desire for "more" through body language (cues), such as kicking their legs, waving their arms, and smiling



**9-18m**

- › Respond to others' communication with gestures, signs, facial expressions, body movements, and/or sounds
- › Communicate vocally or use nonverbal strategies to communicate when interacting with a responsive adult
- › Engage in joint attention by directing their gaze toward what a speaker is looking at or pointing to
- › Point in order to request an object
- › Use varying body language/cues by language and/or culture to signal enjoyment or their desire for more of an activity from an adult (e.g., such as bobbing their head, raising their eyebrows, smiling, or tilting their head)



**18-24m**

- › Participate in simple turn-taking during one-on-one conversations
- › Demonstrate concern for others through gestures, signs, and/or facial expressions
- › Directly interact with adults to signal enjoyment or a desire for more (e.g., by tugging on an adult's pant leg, patting an adult, holding an adult's arm, or verbalizing)



**24-36m**

- › Respond to others' statements, prompts, and questions
- › Use multiple means, such as verbal and nonverbal language, to communicate needs, wants, and feelings
- › Use culturally appropriate/acceptable social conventions to initiate and sustain exchanges of communication
- › Demonstrate an understanding of simple humor



**36-48m**

- › Demonstrate an understanding of nonverbal cues (e.g., eye contact, distance from partner, and facial expressions) and the ability to use them
- › Use appropriate volume and intonation when speaking in a variety of social situations
- › Follow culturally appropriate/acceptable norms of communication in group settings, with support and modeling
- › Engage, with support and modeling, in conversations of at least three turns, with each exchange relating to and building upon what was said previously



**48-60m**

- › Follow culturally appropriate/accepted norms of communication in group settings with increasing independence
- › Engage, with support and modeling, in conversations of at least five turns, with each exchange relating to and building upon what was said previously
- › Use language to communicate with others in familiar and unfamiliar social situations for a variety of purposes



# LANGUAGE DEVELOPMENT

## Component 4: Language Development of Multilingual Learners

**Standard 4.a:** Multilingual children attend to, understand, and respond to increasingly complex language on a range of topics, including personally meaningful experiences and texts (including digital texts) in English and their home language(s).

### In early-stage sequential multilingual development, multilingual children:



- › Demonstrate an understanding of age-appropriate language usage related to conversational as well as basic and advanced concepts in the home language(s)
- › Attend to English oral language in both real and pretend activities, relying on the intonation, facial expressions, and/ or gestures of the speaker
- › Continue to make progress in their home language (s) attend to and participate in English language small- and large-group activities, such as circle time, storybook reading, etc.
- › Begin to follow simple directions in English, especially when they are accompanied by contextual cues, such as gestures, signs, pointing, and voice modulation

### In mid-stage sequential multilingual development, multilingual children:



- › Continue to make progress in their home language
- › Demonstrate an understanding of English words for objects and actions and of English phrases encountered frequently in both real and pretend activities
- › Demonstrate an understanding of English words related to basic concepts (e.g., colors, some animal classifications, foods, etc.)
- › Respond appropriately to requests in English that involve one-step directions (e.g., “clean up”) when personally directed by others (these requests may occur with or without contextual cues)

### In late-stage sequential multilingual development, multilingual children:



- › Demonstrate an understanding of a larger set of words in English and their home language(s) (for objects and actions, personal pronouns, and possessives) in both real and pretend activities
- › Demonstrate an understanding of words in English and their home language(s) related to more advanced concepts (e.g., abstract emotions and ideas)
- › Follow directions that involve a one- or two-step sequence, relying less on contextual cues

**Note:** Unlike most of the other developmental progressions in this document, the indicators for sequential multilingual development do not follow specific age thresholds. Multilingual Learners are exposed to second (or third) languages for the first time at different stages. One child may start the process of sequential multilingual learning at birth and another child may start at age four, making the age thresholds inappropriate. So instead of using age, the RIELDS use research-based stages to outline a child’s sequential multilingual development. There is no set time for how long it will take a given child to progress through these stages. Progress depends upon the child’s exposure to each language (English and home language(s)) in the home and other environments, the child’s motivation to learn English and their home language(s), and other factors. Practitioners (especially those who do not speak multiple languages) are encouraged to learn about multilingual children’s sequential multilingual development progress from parents and other family members.



# LANGUAGE DEVELOPMENT

## Component 4: Language Development of Multilingual Learners

**Standard 4.b:** Multilingual children become increasingly proficient in expressing their thoughts and ideas in English and their home language(s).

### In early-stage sequential multilingual development, multilingual children:



- › Use nonverbal communication, such as gestures or behaviors, to seek attention, request objects, or initiate a response from others
- › Use age-appropriate vocabulary in their home language(s)
- › Listen and converse in their home language(s)
- › Use age-appropriate grammar in their home language(s)
- › Ask a variety of questions (e.g., “what,” “why,” “how,” “when,” and “where”) in their home language(s)
- › Use simple English expressions that are phonetically correct but may be inappropriate to the context of the conversation or the situation (pragmatically inappropriate, e.g., missing social, contextual, or self-referential cues)

### In mid-stage sequential multilingual development, multilingual children:



- › Combine nonverbal with some verbal communication to be understood by others
- › Codeswitch (the mixing of two or more languages in the same utterance)
- › Use telegraphic speech (two-word phrases rather than full sentences, such as “want food”)
- › Use formulaic speech (expressions that are learned whole, e.g., “I don’t know”)
- › Use English vocabulary that mainly consists of concrete nouns and some verbs and pronouns
- › Converse with others in English using two or three words at a time and may switch back and forth between English and their home language(s)
- › Use some English grammatical markers (e.g., “-ing” or the plural-forming “-s”) and apply at times the rules of grammar of the home language to English
- › Use “what” and “why” questions in English, sometimes with errors

### In late-stage sequential multilingual development, multilingual children:



- › Demonstrate increasing reliance on verbal communication in English and their home language(s) to be understood by others
- › Use new English vocabulary to share knowledge of concepts, including conversational and academic vocabulary
- › Sustain a conversation in English and their home language(s) with increasingly complex syntax, adding conjunctions, subject-verb-object patterns, and other more advanced elements of sentence construction
- › Expand their use of different forms of grammar in English (e.g., plurals; possessive pronouns; simple past-tense verbs), sometimes with errors
- › Use “what,” “why,” “how,” “when,” and “where” questions in more complete forms in English, sometimes with errors

**Note:** Unlike most of the other developmental progressions in this document, the indicators for sequential multilingual development do not follow specific age thresholds. Multilingual Learners are exposed to second (or third) languages for the first time at different stages. One child may start the process of sequential multilingual learning at birth and another child may start at age four, making the age thresholds inappropriate. So instead of using age, the RIELDS use research-based stages to outline a child’s sequential multilingual development. There is no set time for how long it will take a given child to progress through these stages. Progress depends upon the child’s exposure to each language (English and home language(s)) in the home and other environments, the child’s motivation to learn English and their home language(s), and other factors. Practitioners (especially those who do not speak multiple languages) are encouraged to learn about multilingual children’s sequential multilingual development progress from parents and other family members.



**Development in the domain of literacy serves as a foundation for reading and writing acquisition.**

The development of early literacy skills is critically important for children’s future academic and personal success. Yet children enter kindergarten varying considerably in these skills; and it is difficult for a child who starts behind to close the gap once they enter school (National Early Panel, 2008). The components within this domain address phonological awareness, alphabet knowledge, print awareness, text comprehension and interest, and emergent writing.

As a growing number of children live in households where the primary spoken language is not English, this domain also addresses the literacy development of multilingual learners. However, specific age thresholds do not define the indicators for literacy development in English, unlike most of the other developmental progressions. Children who become multilingual learners are exposed to English (in this country) for the first time at different ages. As a result, one child may start the process of developing English literacy skills very early in life and another child not until age four, making the age thresholds inappropriate. So instead of using age, *The RIELDS* use research-based age ranges to outline a child’s progress in literacy development. It is important to note that there is no set time for how long it will take a given child to progress through these stages. Progress depends upon the unique characteristics of the child, their exposure to English in the home and other environments, the child’s motivation to learn English, and other factors.

Children with disabilities may demonstrate alternate ways of meeting the goals of literacy development. For example, a child with a visual impairment will demonstrate a relationship to books and tactile experiences that is significantly different from that of children who can see. As well, children with other special needs and considerations may reach many of these same goals, but at a different pace, in a different way, with a different degree of accomplishment, or in a different order than their peers. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the literacy development of all children.

**Remember:** While this domain represents general expectations for literacy development, each child will reach the individual standards at their own pace and in their own way.



- L1: Phonological Awareness
- L2: Print Concepts
- L3: Comprehension and Interest
- L4: Literacy Development for Multilingual Learners
- L5: Emergent Writing

## Component 1: Phonological Awareness

**Standard 1.a:** Children demonstrate awareness of spoken words, syllables, and sounds (phonemes).

By the following age ranges, children typically, for example:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<ul style="list-style-type: none"> <li>› Experiment and play with sound</li> <li>› Respond differently to different sounds</li> </ul>	<ul style="list-style-type: none"> <li>› Listen attentively to familiar stories, rhymes, and songs</li> <li>› Use sounds for a variety of purposes</li> </ul>	<ul style="list-style-type: none"> <li>› Repeat words in rhymes and chants with prompting</li> <li>› Identify familiar melodies and rhythms in music (in the way that early readers listen for sound-alike words and patterns)</li> <li>› Recognize combinations of words</li> <li>› Use two- to three-word sentences (e.g., “Go bye-bye,” “Mommy’s car”)</li> <li>› Repeat new words adults say</li> </ul>	<ul style="list-style-type: none"> <li>› Engage in word and sound play with adults (e.g., rhymes, nonsense words)</li> <li>› Distinguish between words that contain similar-sounding phonemes (“make-mat,” “sit-lot”)</li> <li>› Fill in repeating phrases of familiar songs, stories, and finger plays</li> <li>› Sing simple songs and lullabies (such as those with repeating initial sounds)</li> </ul>	<ul style="list-style-type: none"> <li>› Demonstrate an awareness of words as separate units</li> <li>› Identify whether two words rhyme</li> <li>› Engage in rhyming games and songs; can complete a familiar rhyme</li> <li>› With modeling and support, blend onsets and rimes in single-syllable words (e.g., hard “c” sound with “ook” to make “cook”)</li> <li>› Comprehend and use new words introduced within thematic units, stories, and daily activities</li> </ul>	<ul style="list-style-type: none"> <li>› Match beginning sounds of some words; are able to name several words that begin with the same initial sound</li> <li>› Produce words (real or nonsense) that rhyme with other common words (e.g., “dance, ants, krance”)</li> <li>› Identify whether two words begin with the same sound (e.g., when an adult gives three or four oral words, children can select those that begin with same sound, although they may not be able to identify the letter)</li> <li>› Blend and delete compound words without the support of pictures or objects (e.g., “butterfly, butter crunch, butter sandwich, butter bear”)</li> <li>› With modeling and support, count, pronounce, blend, and segment onsets and rimes of single syllable spoken words (e.g., “say map; say map again without the /m/”)</li> </ul>

## Component 2: Print Concepts

**Standard 2.a:** Children develop letter-sound correspondence and identify letters by sounds (phonemes) and names.

By the following age ranges, children typically, for example:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<ul style="list-style-type: none"> <li>› Respond to visual stimuli in their environment</li> </ul>	<ul style="list-style-type: none"> <li>› Point to pictures in a book</li> <li>› Engage with easy-to-hold books, such as board books, when not able to be active (e.g., sitting in a car seat)</li> </ul>	<ul style="list-style-type: none"> <li>› Point to pictures and groupings of words (e.g., paragraphs) in books</li> <li>› Recognize simple environmental print (e.g., McDonalds' "M" and Wal-Mart "W," although they may not say the letter)</li> <li>› Imitate the sounds of animals and people pointed to in books (e.g., making the sound of a quacking duck or a crying baby)</li> </ul>	<ul style="list-style-type: none"> <li>› Recognize more symbols and logos in the environment</li> <li>› Recognize letters as a special form of symbol that can be individually named and produce a sound</li> <li>› Recognize a few letters in their own name</li> </ul>	<ul style="list-style-type: none"> <li>› Recognize and produce the sound of some letters of the alphabet, especially those in their own name as well as letters that occur frequently in environmental print</li> <li>› With support, begin to produce the sound for some of the letters they recognize</li> <li>› Recognize their own name or other common words in print (e.g., STOP)</li> <li>› Recognize words that start with the same letter as their name</li> </ul>	<ul style="list-style-type: none"> <li>› Recognize and name at least half of the letters in the alphabet, including upper- and lower-case letters, letters in their own name (first name and last name) as well as letters that occur frequently in environmental print</li> <li>› With support, recognize and produce the sound for letters</li> <li>› Relate letters to specific sounds that the letters represent</li> <li>› Recognize beginning sound in familiar words</li> <li>› Demonstrate an understanding that strings of letters represent a sequence of spoken sounds</li> </ul>

## Component 2: Print Concepts

**Standard 2.b:** Children demonstrate book awareness and knowledge of basic print conventions; they understand that print carries meaning and spoken words are represented by text.

By the following age ranges, children typically, for example:



0-9m

- › Explore physical features of books
- › Demonstrate an interest in books from among a collection of toys
- › Demonstrate an interest in books by looking intently at or reaching for colorful pictures in books



9-18m

- › Demonstrate an increasing ability to handle books without assistance
- › Hold books and look at pictures as if reading
- › Respond to features of books, such as pictures and sensory features (e.g., the fluffy cotton in *Pat the Bunny*)
- › Actively participate in shared reading experiences by pointing to and turning pages



18-24m

- › Open books and bring books to an adult to read
- › Point out pictures in books and say the names of items in the pictures
- › Actively participate in shared reading experiences by making one- or two-word comments and continuing to point to and turn pages
- › Point to pictures and groupings of words (e.g., paragraphs) in books



24-36m

- › Recognize specific books by their covers and seek out specific pages in familiar books
- › Know where books are kept, take them to an adult reader, and return books to their designated place when finished
- › Make scribble marks on paper and “read” the meaning they assign to the marks
- › Recognize some letters and numerals
- › Choose to look at books, magazines, and other print materials without assistance



36-48m

- › Hold a book in correct orientation and turn pages from front to back, usually one at a time
- › Demonstrate an understanding that print carries meaning and can be read
- › Imitate the act of reading a book and demonstrate appropriate book-handling skills
- › Handle and care for books in a respectful manner
- › Demonstrate an awareness of various conventions of print (e.g., upper- and lower-case letters, different fonts) and indicate where to start reading on a page and how to progress across and down a page



48-60m

- › Identifies and describes the role of an author/illustrator of a book
- › Identify familiar words in books and the environment
- › Make connections between illustrations and text
- › Recognize their own name and those of their siblings or friends

“

Learning to read and write is an ongoing process from infancy. Contrary to popular belief, it does not suddenly begin in kindergarten or first grade. From the earliest years, everything that adults do to support children’s language and literacy is critical.

- Strickland & Riley-Ayers

”

## Component 3: Comprehension and Interest

**Standard 3.a:** Children show interest and an understanding of a variety of literacy experiences.

By the following age ranges, children typically, for example:



**0-9m**

- › Attend to their caregiver's voice when being held and read to
- › Become quiet or show pleasure when an adult tells or reads a familiar story or rhyme or sings a familiar song
- › Explore books with various senses (sight, touch, even taste)



**9-18m**

- › Focus their attention for short periods of time on, and actively participate in, shared reading experiences by pointing to pages, turning pages, and making sounds or saying simple words
- › Request that adults read to them
- › Point to and make sounds for familiar pictures, objects, and characters in books and photographs
- › Make movements and sounds in response to cues in songs and finger plays
- › Demonstrate preferences for favorite books



**18-24m**

- › Use words, gestures, signs, and/or expressions to request rhymes and rhythm games from adults (e.g., asking an adult by demonstrating part of a rhyme's movement and combining the movement with words)
- › Request adults to read books or certain pages in books to them (e.g., bringing a book to an adult while speaking words of request or making facial expressions that indicate the request)
- › Use gestures, signs and/or body actions to indicate their interest in having a book read (e.g., nodding their head, raising eyebrows, and pointing)

*Continued*



**24-36m**

- › Actively participate in shared reading experiences by asking questions, making comments, and responding to prompts
- › Demonstrate an interest in a variety of early literacy experiences, such as telling and listening to stories, singing and saying rhymes, and engaging with writing materials
- › Demonstrate a preference for conventional books over board books
- › Enjoy books about a variety of topics
- › Incorporate books or other print materials into their play
- › Enjoy and ask to engage in book reading, book writing, or other literacy-related activities

*Continued*



**36-48m**

- › Explore a variety of literary genres, such as fiction, fantasy, informational texts
- › Share opinions about what they did or did not like about a book or story
- › Begin to understand the sequence of a story
- › With support, retell or reenact familiar stories with pictures or props as prompts
- › Ask and answer questions about main characters or events in a familiar story

*Continued*



**48-60m**

- › Attend to and request longer and more complex books or stories
- › Demonstrate knowledge of details from familiar stories (e.g., about characters, events, story-related problems, and resolutions)
- › Engage in higher-order thinking during shared reading experiences, such as making predictions and inferences, determining cause-and-effect relationships, and summarizing stories
- › Retell a familiar story in the proper sequence, including major events and cause-and-effect relationships

*Continued*



## Component 3: Comprehension and Interest

**Standard 3.a:** Children show interest and an understanding of a variety of literacy experiences.

Continued from previous:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<i>See previous</i>	<i>See previous</i>	<i>Continued from previous</i>	<i>Continued from previous</i>	<i>Continued from previous</i>	<i>Continued from previous</i>
		<ul style="list-style-type: none"> <li>› Prefer to listen to familiar or favorite books multiple times (at a single setting or each day)</li> </ul>	<ul style="list-style-type: none"> <li>› Recite some words of a familiar book when read to (especially from books with repeating text)</li> <li>› Recall specific characters or events from familiar stories and retell some parts of a story with prompting and support</li> <li>› With modeling and support, anticipate what comes next in familiar stories</li> <li>› Ask and answer questions about pictures in a book</li> </ul>	<ul style="list-style-type: none"> <li>› With modeling and support, make predictions about what might happen next in a story and determine if their predictions were confirmed</li> <li>› With modeling and support, demonstrate knowledge from informational texts</li> <li>› Respond to the question “what made you think so?” in response to their ideas about books and stories, with more depth and detail</li> <li>› With prompting and support, ask and answer questions about unfamiliar words in a story or informational text read aloud</li> </ul>	<ul style="list-style-type: none"> <li>› Demonstrate knowledge from informational texts in a variety of ways (e.g., recognizing and describing the life cycle of a butterfly)</li> <li>› With guidance and support, relate events and information from stories to their own experiences</li> <li>› Ask and answer questions about unfamiliar words in a story, poem, or informational text read aloud</li> <li>› Use new vocabulary acquired through reading</li> <li>› Act out characters and events from a story, poem, or informational text read aloud</li> </ul>



Fantasy play, rather than being a distraction, helps children achieve the goal of having an open mind, whether in the service of further storytelling or informal lessons

- Lev Vygotsky



## Component 4: Literacy Development for Multilingual Learners

**Standard 4.a:** Multilingual children become increasingly engaged in literacy experiences in English and in their home language(s).

### In early-stage sequential multilingual development, multilingual, children:

- › Attend to an adult reading a short storybook written in their home language(s) or written in English if the English story has been read in the home language first and especially if the book contains cues (pictures)
- › “Read” familiar books (written in their home language or in English) when encouraged by others and use their home language(s) to talk about the books
- › Begin to identify and relate to a story from their own life experiences in their home language(s)
- › Retell a story in their home language when read or told a story in their home language(s)

### In mid-stage sequential multilingual development, multilingual, children:

- › Participate in reading activities, using books written in English when the language is predictable
- › Choose to read familiar books written in their home language(s) or in English with increasing independence and to talk about the books in either their home language(s) or English
- › Describe their own experiences related to the topic of a story, sometimes using telegraphic and/or formulaic speech in English
- › Begin to narrate using English that reflects an increasingly larger vocabulary and more complex grammar
- › Retell a story using their home language(s) and some English when read or told the story in English

### In late-stage sequential multilingual development, multilingual, children:

- › Participate in reading activities, using a variety of genres that are written in English or their home language(s)
- › Choose to read familiar books written in English with increasing independence and to talk about the books in English
- › Engage in extended conversations in English about stories
- › Retell in English the majority of a story read or told in English

**Note:** Unlike most of the other developmental progressions in this document, the indicators for sequential multilingual development do not follow specific age thresholds. Multilingual Learners are exposed to second (or third) languages for the first time at different stages. One child may start the process of sequential multilingual learning at birth and another child may start at age four, making the age thresholds inappropriate. So instead of using age, the RIELDS use research-based stages to outline a child’s sequential multilingual development. There is no set time for how long it will take a given child to progress through these stages. Progress depends upon the child’s exposure to each language (English and home language(s)) in the home and other environments, the child’s motivation to learn English and their home language(s), and other factors. Practitioners (especially those who do not speak multiple languages) are encouraged to learn about multilingual children’s sequential multilingual development progress from parents and other family members.

## Component 5: Emergent Writing

**Standard 5.a:** Children use a combination of drawing, dictating, and writing to show knowledge of writing conventions and demonstrate writing as a means of communication.

By the following age ranges, children typically, for example:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<ul style="list-style-type: none"> <li>› Focus on people and express particular interest in facial contours and expressions</li> <li>› Attend to visual stimuli in their environment</li> </ul>	<ul style="list-style-type: none"> <li>› Make marks or scribbles spontaneously on paper using a variety of media (e.g., chalk, pencil, markers, paint)</li> </ul>	<ul style="list-style-type: none"> <li>› Make intentional scribbles and shapes when offered paper and crayons or other writing instruments and show their drawings to others</li> <li>› Use things the way they are intended to be used (e.g., scribbling on paper rather than on table surfaces)</li> </ul>	<ul style="list-style-type: none"> <li>› Explore a variety of writing tools</li> <li>› Dictate names, labels, single words (e.g., mommy, house, dog)</li> <li>› Watch when adults write</li> <li>› Imitate the act of writing during play</li> <li>› Describe drawings and paintings simply (e.g., “that’s Mama”)</li> <li>› Use scribbles as representations of oral language (e.g., describing scribbles as writing or language by telling adult what they mean)</li> </ul>	<ul style="list-style-type: none"> <li>› Use writing tools and materials in various centers or learning environments (e.g., dramatic play, block area, science center)</li> <li>› Dictate ideas, sentences, and stories</li> <li>› With modeling and support, write some letters</li> <li>› With modeling and support, write some numerals</li> <li>› With modeling and support, discuss or answer questions about their writing and drawings</li> <li>› Use letter-like symbols to create written materials during play or to express an idea</li> </ul>	<ul style="list-style-type: none"> <li>› With modeling and support, use writing and/or digital tools to communicate information, tell a story, or answer a question</li> <li>› Dictate longer and more complex ideas, sentences, and stories</li> <li>› Write their first name nearly correctly (may switch the order of letters or write some letters backwards)</li> <li>› With modeling and support, write numerals one through ten</li> <li>› With modeling and support, print some letters of meaningful words, sometimes using letters and sometimes using letter-like forms</li> </ul>

“

Certainly, young children can begin to practice making letters and numbers and solving problems, but this should be done without ...workbooks. Young children need to learn initiative, autonomy, industry, and competence before they learn that answers can be right or wrong.

”

- David Elkind

*Continued*

*Continued*

## Component 5: Emergent Writing

**Standard 5.a:** Children use a combination of drawing, dictating, and writing to show knowledge of writing conventions and demonstrate writing as a means of communication.

Continued from previous:

0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
<i>See previous</i>	<i>See previous</i>	<i>See previous</i>	<i>See previous</i>	<i>Continued from previous</i>	<i>Continued from previous</i>
				<ul style="list-style-type: none"> <li>› Understand that writing carries a message and use scribbles, shapes, letter-like symbols, letters, and numerals to write or represent words or ideas</li> <li>› With assistance and support, engage in writing activities (e.g., labeling a picture)</li> </ul>	<ul style="list-style-type: none"> <li>› Use writing to convey meaning (e.g., writing a note to themselves during play, writing a note to their mother, taking a restaurant “order” in a dramatic play area, writing a grocery list; writing a grocery list on a play cell-phone)</li> <li>› Engage in independent writing activities during routine times, (e.g., intentionally writing in their own journal, at developmental level)</li> <li>› Generate a plan for writing (e.g., articulate a purpose for writing)</li> </ul>

“ Many young writers naturally begin writing about themselves and their lives, representing their experiences through drawing and writing. ”

- Moore-Hart, 2010



# COGNITIVE DEVELOPMENT

2023

Development in the domain of cognition involves the processes by which young children grow and change in their abilities to pay attention to and think about the world around them. Infants and young children rely on their senses and relationships with others; exploring objects and materials in different ways and interacting with adults both contribute to children’s cognitive development. Everyday experiences and interactions provide opportunities for young children to learn how to solve problems, differentiate between familiar and unfamiliar people, attend to things they find interesting even when distractions are present, and understand how their actions affect others. Research in child development has highlighted specific aspects of cognitive development that are particularly relevant for success in school and beyond. These aspects fall under a set of cognitive skills called executive function and consist of a child’s working memory, attention and inhibitory control, and cognitive flexibility. Together, these skills function like an “air traffic control system,” helping a child manage and respond to the vast body of the information and experiences they are exposed to daily. The components within this domain address logic and reasoning skills, memory and working memory, attention and inhibitory control, and cognitive flexibility.

Children with disabilities may reach many of these same goals of cognitive development. For example, a child with a physical disability may require adaptive toys to explore cause-and-effect relationships and a child with a speech impairment may use augmentative and/or alternative communication devices to retell a familiar story or activity. Children with disabilities may each many of these same goals, but at a different pace, with a different degree of accomplishment, or in a different order than their peers. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the cognitive development of all children.

**Remember:** While this domain represents general expectations for cognitive development, each child will reach the individual standards at their own pace and in their own way.

- CD 1: Logic and Reasoning
- CD 2: Memory and Working Memory
- CD 3: Attention and Inhibitory Control
- CD 4: Cognitive Flexibility





# COGNITIVE DEVELOPMENT

## Component 1: Logic and Reasoning

**Standard 1.a:** Children apply strategies and draw upon past knowledge and experiences to meet goals and solve problems.

By the following age ranges, children typically, for example:



0-9m



9-18m



18-24m



24-36m



36-48m



48-60m

- › Explore objects and materials in different ways (e.g., mouthing, reaching for, or hitting, banging, and squeezing them)
- › Bang a block (or other object) on the floor repeatedly to hear the sound that it makes
- › Combine learning schemes to learn more about an object (e.g., mouthing and then shaking a rattle)
- › Demonstrate an understanding of simple cause-and-effect relationships (e.g., looking toward the sky when they hear an airplane)

- › Explore small openings and look for items to put in the openings, including their fingers
- › Solve simple problems independently (e.g., by climbing to retrieve an out-of-reach object)
- › Demonstrate recognition of cause-and-effect relationships (e.g., pushing on a toy truck and watching it roll away)
- › Use visual comparisons to compare quantities (e.g., which pile of crackers has more)
- › Stack and then knock down “towers” and then stack them up again

- › Explore the properties of objects by grabbing, pushing, pulling, turning over, and throwing them
- › Make simple decisions, take action, and observe the effect of their actions on others (e.g., pushing a toy truck toward an adult, watching it hit the adult, and observing how the adult reacts)
- › Treat objects differently as they begin to understand similarity and difference (e.g., squeezing stuffed animals and throwing balls)
- › Separate objects by a single feature (e.g., color)
- › Match simple geometric forms (e.g., circle, square, triangle) that have the same size and orientation
- › Develop learning schemes related to people and actions (e.g., saying “goodbye” and then leaving, or asking for music and then dancing to it)

- › Make plans before attempting to solve some simple problems
- › Explore cause-and-effect relationships by intentionally repeating an action and observing the reaction (e.g., rolling a car down a ramp repeatedly and observing the distance the car traveled)
- › Engage in pretend play sequences (e.g. playing “kickball” which requires kicking a ball, running, and then stopping at a base, not necessarily in order)

- › Use previous experiences to make plans before attempting to solve some problems (e.g., using a wagon to gather toys into one spot rather than trying to carry them all by hand)
- › Solve simple problems without trying every possibility (e.g., putting big blocks at the base of a tower and smaller blocks on top to make a tower that doesn’t topple)
- › Explore cause-and-effect relationships by intentionally varying the action to change the reaction (e.g., rolling two different cars down a ramp and observing the different distances traveled)
- › Sort objects and then count and compare the groups formed

- › Solve complex problems by planning and carrying out a sequence of actions
- › Analyze the result of an attempted solution and use the new information to solve a problem (e.g., trying to staple pieces of paper after unsuccessfully trying to tape them together)
- › Explain their reasoning behind a strategy or choice and why it worked or didn’t work



# COGNITIVE DEVELOPMENT

## Component 2: Memory and Working Memory

**Standard 2.a:** Children hold information in their mind and manipulate it to perform tasks.

By the following age ranges, children typically, for example:



- 0-9m**
  - › Respond to familiar people and objects in a way that is different from the way they respond to unfamiliar people or objects
  - › After repeated experiences with the same objects and persons, sometimes remember that unseen objects are still there (e.g., remembering that a ball is under the blanket)
  - › Attend to unexpected events
- 9-18m**
  - › Point to, or in some other way indicate, familiar people and objects when they are named
  - › Remember the location of objects that are meaningful to them
  - › Demonstrate an understanding of object permanence, such as reaching under a blanket to retrieve a stuffed animal
- 18-24m**
  - › Demonstrate a solid understanding of object permanence (e.g., looking for a car after it enters a tunnel, finding play dough that has been put away in a cupboard)
  - › Purposefully put two actions together in sequence (e.g., grabbing a large ball and rolling it)
- 24-36m**
  - › Remember and communicate what happened earlier in the day; recall basic components of recent events (e.g., are able to follow a daily routine)
  - › Know where things are kept in familiar environments and can retrieve them when needed
  - › Successfully follow two-step directions
- 36-48m**
  - › Communicate with some detail about events that happened in the past
  - › With support, retell or reenact familiar stories, including such details as characters, phrases, and events
  - › Put several objects or groups in order by a quantitative attribute (number, length, etc.)
  - › Solve simple problems with totals of five or fewer items (e.g., concluding that they have a total of four pencils if they already have three and are given one more)
  - › Successfully follow three-step directions
- 48-60m**
  - › Accurately recount past experiences in the correct order and include relevant details
  - › Retell a familiar story or activity in the proper sequence, including such details as characters, phrases, and events
  - › Remember more minute details from a story or experience and can answer questions more accurately
  - › Place four or more objects or groups in order of a quantitative attribute (number, length, etc.)
  - › Solve simple word problems with totals of 10 or fewer items (e.g., concluding that they have nine grapes if they have seven and are given two more)
  - › Successfully follow detailed, multi-step directions



Play is an indispensable element in child development. It is the child’s natural process of learning and development and, consequently, a critical ingredient in the educative process.

- Frost





# COGNITIVE DEVELOPMENT

## Component 3: Attention and Inhibitory Control

**Standard 3.a:** Children’s skills increase in filtering impulses and sustaining attention on a task.

By the following age ranges, children typically, for example:



**0-9m**

- › Demonstrate caution around new or unusual people or events
- › Explore objects by holding, mouthing, dropping, etc.



**9-18m**

- › Accepts a substitute toy in place of an object out of reach
- › Attend to a short, familiar storybook but may not want to follow the book page by page



**18-24m**

- › Have a general understanding of the passing of time and the meaning of phrases like “not now” and “after lunch”
- › Comply with simple two-part requests that involve waiting (e.g., “Eat your breakfast and then we’ll play with the blocks.”)



**24-36m**

- › Wait to be handed a desired object
- › Attend to specific features of objects and identify elements within a complex figure (e.g., looking at a picture of a farmyard and pointing to and naming the figures of a horse, a duck, a cat, etc.)
- › Follow adult directions when given simple guidance
- › Focus on topics or materials of interest despite distractions (e.g., can dump out and solve a favorite puzzle, even with other children playing in the background)



**36-48m**

- › With adult support, avoid imitating the negative behavior of another child
- › With adult reminders, wait to communicate information in a group
- › Focus on increasingly complex topics for longer periods of time
- › Return to complete a task if interrupted
- › Count only those objects in a group that have a specific attribute (e.g., all of the red cars in a picture)
- › Build block buildings and include such structural features as arches and ramps



**48-60m**

- › Without adult reminders, wait to communicate information in a group
- › Maintain focus on a project for a sustained period of time and over several days
- › Return with focus to an activity or project after having been away from it for a period of time
- › Demonstrate an awareness of important activities that are “coming up” or “in the near future” (e.g., keeping track of the days until a birthday or vacation trip) as a strategy to control excitement
- › Combine shapes into patterns that make new shapes or complete puzzles (e.g., rearranging a collection of circles and variously sized rectangles to make the image of a person)
- › Build complex block buildings, intentionally maintaining such features as symmetry



Fantasy play provides the nourishing habitat for the growth of cognitive, narrative, and social connectivity in young children.

- Vivian Gussin Paley







# COGNITIVE DEVELOPMENT

## Component 4: Cognitive Flexibility

**Standard 4.a:** Children’s skills increase at adjusting to changes in demands, priorities, and perspectives.

By the following age ranges, children typically, for example:



0-9m

- › Try new actions with a familiar object (e.g., dropping or throwing a rattle in addition to mouthing it)
- › Demonstrate an ability to self-soothe or calm (e.g., babbling or sucking on their thumb or fists)
- › Develop their own regular sleep-and-wake cycle
- › Begin to show an anticipation of familiar routines
- › Use their bodies as “tools” (e.g., as a means to an end: reaching out and grasping to get a rattle, for example)



9-18m

- › Use basic items creatively (e.g., turning a pail over to use it as a drum)
- › Demonstrate comfort in familiar routines and activities
- › Engage in more complex play sequences based on an understanding of everyday events and routines (e.g., pretending to punch in numbers on a phone and then “talking” to grandpa after waiting for an answer)
- › Understand the use of people as “tools” for help (e.g., recognizing that an adult can reach an object for them on a high shelf)
- › View world from an egocentric perspective (e.g., crying when frustrated that things are not going their way)



18-24m

- › Change their behavior in response to environmental cues (e.g., when an adult sits on the floor with a book, they put down their blocks and go over to the adult to listen to the adult read)
- › Change their behavior in response to their environment by using the “tools” around them (e.g., if a toy is on a towel, pulling the towel to bring the toy closer, rather than just going over to the toy)



24-36m

- › Use objects in new ways to solve a problem or meet a goal (e.g., propping up a track with a piece of chalk so a toy train can pass underneath)
- › Transition from one activity to the next activity with adult support
- › Adjust when necessary to brief disruptions in routines (while still preferring consistent rules and routines)
- › Make use of their environment by adapting objects as “tools” (e.g., using a stick to reach something that is under a chair)



36-48m

- › Require minimal adult support to transition from one activity to another (e.g., moving from computer to circle time)
- › Understand that different contexts may require different behaviors (e.g., taking off shoes when entering their house but leaving them on when entering the classroom)
- › Generate a new approach or change their plan of action if a better alternative is found or suggested (e.g., accepting a suggestion to secure a tower’s greater stability by building it on the floor rather than on a thick rug)
- › Understand that not all children want the same things



48-60m

- › Quickly adjust and adhere to a new rule (e.g., lining up inside the building rather than outside when the weather gets colder, or it rains)
- › Apply different rules in different contexts that require different behaviors (e.g., using indoor voices or feet versus outdoor voices or feet)
- › Reconstruct a pattern using different materials or modalities
- › Sort by more than one attribute (e.g., color and shape) into two or more groups
- › Correctly add an object to an existing series (e.g., of increasing lengths)



The development of mathematical knowledge and skills contributes to children’s ability to make sense of the world and to solve mathematical situations they encounter in their everyday lives. Knowledge of basic math concepts and the skill to use math operations to solve mathematical situations are fundamental aspects of school readiness and are predictive of later success in school and in life. The components within this domain address number sense and quantity; number relationships and operations; classification and patterning; measurement, comparison, and ordering; and geometry and spatial sense.

Children with disabilities may demonstrate alternate ways of meeting the goals of mathematics development. For example, a child who is blind may begin to identify braille numbers and a child with a physical disability may identify numerals through use of an eye gaze. Children with disabilities may reach many of these same goals, but at a different pace, with a different degree of accomplishment, and in a different order than their peers. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best serve the mathematics development of all children.

**Remember:** While this domain represents general expectations for mathematics development, each child will reach the individual standards at their own pace and in their own way.



- M 1: Number Sense and Quantity
- M 2: Number Relationships and Operations
- M 3: Classification and Patterning
- M 4: Measurement, Comparison, and Ordering
- M 5: Geometry and Spatial Sense



# MATHEMATICS

## Component 1: Number Sense and Quantity

**Standard 1.a:** Children develop number recognition and counting skills and learn the relationship between numbers and the quantity they represent.

By the following age ranges, children typically, for example:



**0-9m**

- › Hold two objects, one in each hand
- › Gesture (e.g., for “more” when eating)



**9-18m**

- › Use words, gestures, and/or signs for action phrases (e.g., “all gone” and “more”)
- › Recognize that there are “one” or “two” of something



**18-24m**

- › Name their first number word—typically “two” (or they hold up two fingers)
- › Bring 2 treats when asked to get treats for two people
- › Match small and large objects (e.g., counting bears to make “Mommy and Me” pairs)



**24-36m**

- › Verbally count to 10 (or in some way indicate a knowledge of words for the numbers from one to ten in sequence) with occasional errors
- › Count up to 5 objects accurately
- › Name and identify some written numerals
- › Identify quantities associated with some numbers



**36-48m**

- › Quickly name the number in a group of objects, up to four, without counting
- › Verbally count to 20 (or in some way indicate knowledge of the words for the numbers from 1 to 20 in sequence) with occasional errors
- › Use strategies to accurately count sets of up to 10 objects
- › Understand that the last number counted represents the number of objects in a set
- › Associate a quantity with a written numeral up to five
- › Recognize and write some numerals up to 10



**48-60m**

- › Quickly name the number in a group of objects, up to 10
- › Verbally count beyond 20 (or in some way indicate knowledge of numbers beyond 20 in sequence), demonstrating an understanding of the number pattern
- › Use strategies to count large sets of objects (more than 10)
- › Know the number that comes before or after a specified number (up to 20)
- › Recognize and order each written numeral up to 10
- › Associate a quantity with a written numeral up to 10



Young children have the capacity and interest to learn meaningful mathematics. Learning such mathematics enriches their current intellectual and social experiences and lays the foundation for future learning.

- National Research Council, 2010





# MATHEMATICS

## Component 2: Number Relationships and Operations

**Standard 2.a:** Children learn to use numbers to compare quantities and solve mathematical situations.

By the following age ranges, children typically, for example:



**0-9m**

- › Hold two objects, one in each hand
- › Explore their fingers and toes



**9-18m**

- › Demonstrate early one-to-one correspondence (e.g., filling containers with objects by dropping them in one at a time)
- › In most instances, choose a set that has more of something they prefer over a set that has less, when given the option
- › Create larger and smaller sets of objects by grouping and ungrouping items (e.g., placing and removing rings on a vertical peg)



**18-24m**

- › Begin to say or gesture the number “two” when asked how old they are
- › Put objects in accurate, one-to-one correspondence when supported by the context (e.g., placing one plastic egg into each indentation of an egg carton)
- › Compare collections that are quite different in size (e.g., one that is at least twice the other)
- › Notice when another child has more of something and gesture or verbalize “want more”
- › Put groups of objects together and begin to subtract (e.g., share)



**24-36m**

- › Use visual cues to approximate which of 2 sets of objects has more
- › Understand that putting 2 sets of objects together makes “more” and taking sets of objects apart will make less
- › Add and subtract with sets of objects smaller than three



**36-48m**

- › Understand that a whole is a larger quantity than its parts (e.g., when looking at 3 nests with 3 eggs in each, says a big number such as 8 or 10 to describe how many eggs there are)
- › Use toys and other objects as tools to solve simple addition and subtraction problems when the total is smaller than five
- › Use one-to-one correspondence to compare small sets of similar objects



**48-60m**

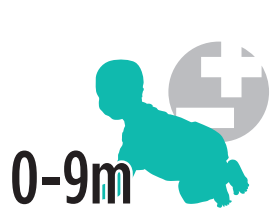
- › Use counting to compare 2 sets of objects and to determine which set has more, less, or the same than the other
- › Understand that adding one or taking away one changes the number in a group of objects by exactly one
- › Use toys and other objects as tools to solve simple addition and subtraction problems with totals smaller than 10



## Component 3: Classification and Patterning

**Standard 3.a:** Children learn to order and sort objects by common attributes, to identify patterns, and to predict the next sequence in a pattern.

By the following age ranges, children typically, for example:



**0-9m**

- › Classify informally as they intuitively recognize objects or situations as similar (e.g., “things I can hold”)
- › Explore the size and shape of objects through various means (banging, mouthing, dropping, etc.)
- › Engage in repeated actions, including movements and vocalizations
- › Follow daily routines (e.g., patterns), such as being fed and then going to sleep almost immediately
- › Enjoy and begin to anticipate repetition, such as playing a “peek-a-boo” game or hearing a familiar song each time they are diapered



**9-18m**

- › Identify objects or creatures by implicitly recognizing their basic attributes and applying labels that adults perceive as classes (e.g., all canines are “doggies”; all felines are “kitties”)
- › Form sets intuitively in which objects in each set are the same (identical) and objects in the other set are different (e.g., putting all of the dolls in one pile and all of the cars in another)
- › Repeat certain action sequences over and over, such as filling and emptying containers
- › Make patterns intuitively by repeating particular movements and vocalizations
- › Watch, bounce, or clap to rhythmic sounds or sing along when an adult sings a song or chant



**18-24m**

- › Sort and match toys and other objects by attributes, such as color or size
- › Form sets with objects that are similar in some properties (but not necessarily identical), such as separating groups by color
- › Make simple patterns of movement through repeated rhythmic activity
- › Copy an adult’s made-up verbal pattern (e.g., “me, me, moo”)
- › Recognize and begin to participate in patterns within stories and in songs



**24-36m**

- › Follow a verbal rule for sorting objects into sets
- › Notice when two things share similar attributes
- › Recognize and extend a simple repeating pattern (e.g., stomp-clap-stomp-clap), with modeling and support



**36-48m**

- › Sort objects by one attribute into two or more groups (e.g., size: big, medium, and small)
- › Classify everyday objects that go together (e.g., mittens, hats, coats)
- › Demonstrate recognition of a simple, repeating pattern
- › Replicate, complete, and extend repeating patterns
- › Recognize, name, and extend basic growing (or enlarging) patterns (e.g., “one more”)



**48-60m**

- › Sort objects by more than one attribute (e.g., color and shape) into two or more groups
- › Sort sets of objects by one characteristic, then sort by a different characteristic and explain the sorting rules (e.g., “These are all of the red ones, but these are all of the big ones”)
- › Extend sequential patterns and replicate these patterns using different materials or modes (e.g., on being told a pattern, replicating the pattern with manipulatives)
- › Identify the core unit of sequentially repeating patterns (e.g., that set of characteristics or items that repeat)
- › Replicate and extend simple growing (or enlarging) patterns



## Component 4: Measurement, Comparison, and Ordering

**Standard 4.a:** Children learn to measure objects by their various attributes to make comparisons.

By the following age ranges, children typically, for example:



**0-9m**

- › Explore the size and shape of objects through various means (banging, mouthing, dropping, etc.)
- › Explore volume as they wrap their fingers around an object or around an adult's finger
- › Explore weight as they pull a toy toward themselves
- › Explore speed by moving hands or legs



**9-18m**

- › Notice large differences in size between two objects (e.g., pointing to the bigger ball)
- › Begin to use such words as "big" and "more" to describe sizes or amounts
- › Explore relative size by trying to squeeze a large object into a smaller container (e.g., putting a doll into doll stroller and then trying to fit themselves into the stroller)



**18-24m**

- › Use words such as "big," "small," and "more" to indicate differences in quantity
- › Understand and use general measurement words, such as "big" and "hot"
- › Recognize when their food bowl is empty and gesture to indicate that fact, or say "more" or "all gone"
- › Find and point to small objects (e.g., the tiny mouse on the pages of *Goodnight Moon*)



**24-36m**

- › Compare small quantities (e.g., knowing that "two" is more than "one" or choosing the larger bowl for cereal over the smaller one)
- › Know the sequence of some parts of their daily routine
- › Use language to compare the sizes of objects (e.g., "big" and "little"; and "mommy," "daddy," and "baby")



**36-48m**

- › Compare two small sets of objects (five or fewer)
- › Make small series of objects (e.g., putting three or four objects in order by length)
- › Recognize differences in measurable attributes by direct comparison measuring (e.g., when trying to pour the same amount of juice into three cups, looking to see if one cup has more than the others)
- › Use multiple copies of the same unit to measure (e.g., seeing how many "building blocks high" a pillow fort is)
- › Use comparative language (e.g., "shortest," "heavier," "biggest")



**48-60m**

- › Order (or seriate) four or more items by decreasing or increasing a relative attribute when differences are perceptually clear (e.g., arranging a rock collection from the largest to the smallest)
- › Use some appropriate tools to measure different attributes (e.g., choosing a scale for weight and a cup for volume)
- › Use measurement language to describe the attributes of objects (e.g., "This is three-blocks long.")

“

Infants' and toddlers' natural curiosity initially sparks their interest in understanding the world from a mathematical perspective, and the adults and communities that educate and care for them also provide experiences that serve as the basis for further mathematics learning.

”

- National Research Council, 2010

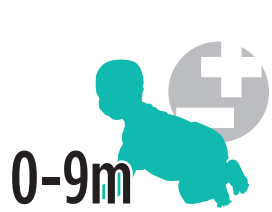


# MATHEMATICS

## Component 5: Geometry and Spatial Sense

**Standard 5.a:** Children learn to identify shapes and their attributes, solve mathematical situations using shapes, and explore the positions of objects in space.

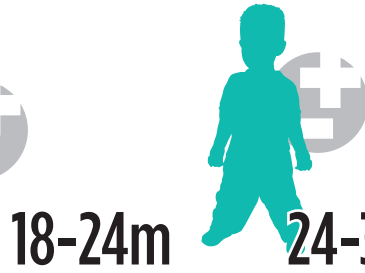
By the following age ranges, children typically, for example:



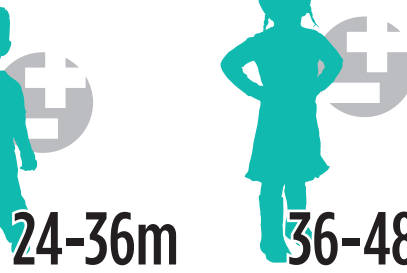
0-9m



9-18m



18-24m



24-36m



36-48m



48-60m



- › Explore the size and shape of objects through various means (e.g., banging, mouthing, dropping, etc.)
- › Explore the way objects move by tracking objects with their eyes and head
- › Explore distance by reaching for something
- › Explore their spatial sense through movement, both involuntary and voluntary (e.g., being picked up, scooting, and pulling up)

- › Explore how differently shaped objects fit or do not fit together by manipulating such things as nesting cups or stacking cones
- › Explore barriers to movement when not able to walk or push past something
- › Compare the attributes of objects or pictures and identify those that are similar
- › Explore their spatial sense (e.g., by bumping into things; squeezing into a tight space; or looking at an adult or a toy from a different angle, when bending over, or with head turned)

- › Match familiar shapes (e.g., circle, square, triangle) that have the same size and the same orientation
- › Attempt to stack blocks as high or higher than themselves
- › Match simple shapes (e.g., placing a shape on a shape board)
- › Explore gravity (e.g., push toy cars down an incline, such as a slanted board)
- › Respond to spatial directions, such as “come here,” “go over there,” and “get down on the floor,” especially if the words are accompanied by gestures, such as pointing and/or signs

- › Link or sort (put together) familiar shapes (e.g., circle, square, triangle) that have different sizes and orientation
- › Build pictures or designs with two-dimensional shapes and create buildings or structures with three-dimensional shapes, such as building blocks
- › Recognize and name some familiar shapes in their home language(s)
- › Understand and use basic language related to locations (e.g., “above,” “below,” “under,” “over”)

- › Build familiar two-dimensional shapes from components or parts (e.g., using a set of circle, rectangle, and line shapes to create an image of a snowman)
- › Combine and separate shapes to make designs or pictures (e.g., completing shape puzzles)
- › Build simple examples of buildings, structures, or areas (e.g., their classroom or playground) with three-dimensional shapes, such as building blocks
- › Name familiar two-dimensional shapes in their home language(s) (circle, triangle, square, rectangle), regardless of their size or orientation
- › Use basic language to describe their location (e.g., “I am under the bed.”)
- › Correctly follow directions involving their own positions in space (e.g., “move forward,” “sit behind,” etc.)

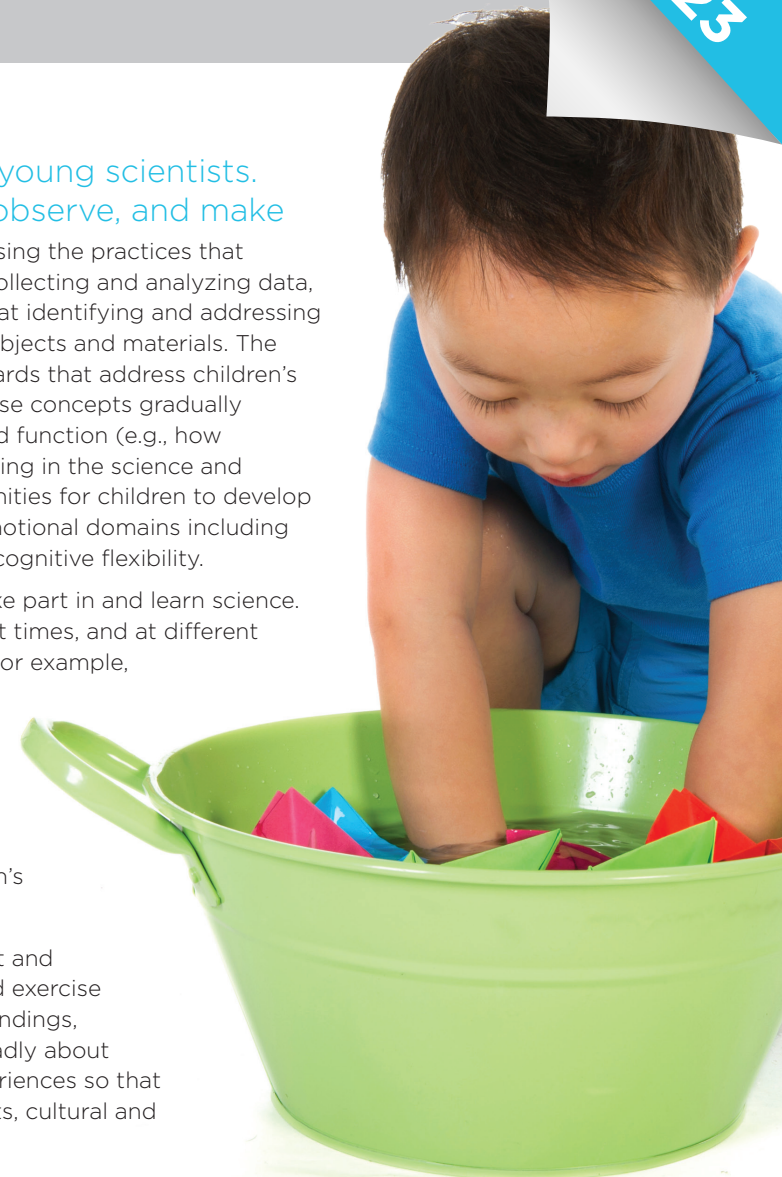
- › Describe and compare shapes using their attributes in their home language(s) (e.g., “a triangle has three sides, but a square has four.”)
- › Combine and separate shapes to make other shapes (e.g., using two triangles to make a square)
- › Build more complex models of buildings, structures, or areas (e.g., their classroom or play-ground) with three-dimensional shapes, such as building blocks
- › Correctly name familiar shapes in their home language(s) (e.g., circle, triangle, and square) and less familiar shapes (e.g., hexagon, trapezoid, and rhombus)
- › Correctly name some three-dimensional shapes in their home language(s) (e.g., cube, cone, cylinder)
- › Understand and use language or similar words in their home language(s) related to directionality, order, and the position of objects, such as “up,” “down,” “in front,” and “behind”



From the moment they are born, children share many of the characteristics of young scientists. They are curious and persistent explorers who use their senses to investigate, observe, and make sense of the world around them. As they grow and develop, they become increasingly adept at using the practices that scientists use to learn about the world—including asking questions, planning, and carrying out investigations, collecting and analyzing data, and constructing explanations based on evidence. Like young engineers, they also become increasingly skilled at identifying and addressing problems that arise in their play and designing and testing solutions, especially in their constructive play with objects and materials. The RIELDS science domain includes a standard focused on the science and engineering practices as well as standards that address children’s learning of basic concepts in physical, Earth/space and life science. Children deepen their understanding of these concepts gradually over time and many experiences. Crosscutting concepts, including cause and effect, patterns, and structure and function (e.g., how something is made relates to how it is used) are also incorporated and embedded within each standard. Engaging in the science and engineering practices in the service of building their understanding of science concepts creates many opportunities for children to develop mathematics knowledge and abilities as well as skills in the physical, language, literacy, cognitive, and social-emotional domains including essential, but less readily observable executive function skills such as working memory, attention to tasks, and cognitive flexibility.

All children come to a school or community-based setting with a variety of prior experiences in science can take part in and learn science. In relation to the standards, each child will express their development and learning in different ways, at different times, and at different paces. Children with disabilities may demonstrate alternate ways of meeting the goals of the science domain. For example, a child with a cognitive delay may require additional hands-on-learning opportunities to generalize science content and a child with an expressive language delay may require pictures or photographs to contribute observations and predictions after classroom-based investigations. Children with disabilities may reach many of these same goals, but at a different pace, with a different degree of accomplishment, and in a different order than their peers. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments, adopting curricula, and facilitating children’s experiences in ways that best support science learning for all children.

**Remember:** The practices of science incorporate a wide range of skills across the domains of development and learning. For example, the practices include multiple opportunities for children to engage in productive talk and exercise language and literacy skills as they formulate questions, explore and describe observable phenomena, record findings, and discuss their emerging ideas with others. As you plan science experiences it will be important to think broadly about children’s levels of development and learning and consider their day-to-day family, home, and community experiences so that you implement and facilitate science experiences that are meaningful and responsive to children’s lives, interests, cultural and linguistic backgrounds, and leverage their strengths, and support areas for growth in context.



S 1: Scientific Practices and Application

S 2: Physical Science

S 3: Earth and Space Science

S 4: Life Science





## Component 1: Scientific Practices and Application

**Standard 1.a:** Children are increasingly able to engage with the inquiry process by developing questions, planning and carrying out investigations, collecting and analyzing data, generating and sharing findings and ideas, and using and applying new knowledge to solve problems.

By the following age ranges, children typically, for example:



**0-9m**

- › Express curiosity about the world around them and attend to novel objects, living things, and events in their immediate environment
- › Reach for and explore objects within their grasp (e.g., bang a block to make noise; shake keys)
- › Move toward favorite objects and adults for play
- › Exhibit behaviors and act on objects to get specific results (e.g., cry for attention; kick a mobile to observe its movement and sound; drop a toy to see if an adult will pick it up)

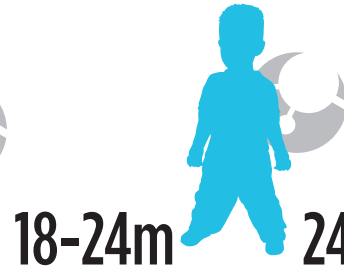
*Continued*



**9-18m**

- › Express their wondering using language, gestures, signs, and facial expressions and show surprise when familiar objects, living things, or events don't appear or happen as anticipated
- › Extend explorations, indoors and out, using all their senses
- › Seek out hidden objects to explore (e.g., open cabinets to get pots and pans)
- › Use tools for eating, drinking, and playing (e.g., toy tools)

*Continued*



**18-24m**

- › Ask simple questions about the objects, materials, living things, and events in their immediate environment
- › Investigate a variety of objects during play (e.g., take things apart and put them together; stack and knock down blocks) and vary their actions to observe results (e.g., push a ball gently and hard)
- › Use tools for exploration and problem-solving (e.g., spoons and buckets for digging; a stick to get an out-of-reach object) and imitate how others explore and use tools (e.g., a rock as a hammer)

*Continued*



**24-36m**

- › Communicate a range of questions verbally and non-verbally (e.g., ask how a toy works; repeat actions to observe if results are same or different)
- › Use all their senses to explore the objects, materials, living things, and events that occur in their immediate environment
- › Notice and explore direct cause and effect relationships (e.g., laugh at how their block tower falls when they kick it; place a stick in the path of an ant to observe what happens)

*Continued*



**36-48m**

- › Ask and wonder about increasingly complex questions to find out more information or to figure out a solution to a problem (e.g., ask or wonder "Why is the sky blue?" or "How can I make a house for a bug with these sticks?")
- › Use standard and non-standard tools for exploration and data collection (e.g., use a hand lens to look at an insect; use different sized containers for measuring more and less)
- › Participate in a range of investigations from more playful (e.g., collaboratively build a bridge for toy cars using a variety of materials) to more structured (e.g., contribute predictions, observations, and ideas to a group sink and float investigation)

*Continued*



**48-60m**

- › With support, contribute questions, observations, and ideas to a group discussion on a topic of shared interest (e.g., share questions about what worms eat and ideas for what a worm habitat should include and why) and begin to demonstrate curiosity about the world outside of their immediate environment (e.g., question why animals live in the rainforest or arctic or why severe weather events occur in other locations)
- › With support, use a variety of standard and nonstandard tools for data collection and recording (e.g., to measure the height of a tower, count the number of blocks or use a ruler; make rain gauges and windsocks to collect weather data)

*Continued*



## Component 1: Scientific Practices and Application

**Standard 1.a:** Children are increasingly able to engage with the inquiry process by developing questions, planning and carrying out investigations, collecting and analyzing data, generating and sharing findings and ideas, and using and applying new knowledge to solve problems.

Continued from previous:

### 0-9m

*Continued from previous*

- › Communicate interest and willingness to explore using sounds, gestures, signs, and/or facial expressions

### 9-18m

*Continued from previous*

- › Begin to explore and identify relationships during their play and in the natural world (e.g., repeatedly push buttons on a phone or other device and listen for the corresponding sounds; anticipate that lightning and thunder will occur together)
- › Reach out to trusted adults and children to indicate curiosity and desire to explore (e.g., pull an adult's hand to go outside)

### 18-24m

*Continued from previous*

- › Apply knowledge about patterns in daily routines to anticipate and make predictions about future events (e.g., get a book to read before naptime, look for boots before going outside on a rainy day)
- › Draw the attention of others to what they are doing, observing, and wondering using emerging language, gestures, and/or signs, and imitate how adults respond to exploring natural phenomena (e.g., have confidence when exploring insects or be nervous about getting dirty or wet)

### 24-36m

*Continued from previous*

- › Compare objects and notice similarities and differences (e.g., sort leaves based on one characteristic, such as color or size)
- › With support, record and represent observations in multiple ways (e.g., wiggle their body; make a curvy line on paper to show how a worm moves)
- › Make inferences and predictions based on previous experience and relationships they have identified (e.g., cry when they see dark clouds in anticipation of thunder)
- › Identify and address mathematical situations that arise in their constructive or exploratory play (e.g., rearrange blocks in different ways to make them balance; try to make a sinking object float)

### 36-48m

*Continued from previous*

- › Compare and sort objects based on one property at a time (e.g., sort blocks by color, size, shape, or texture)
- › With support, record and represent their observations in a variety of ways (e.g., use their body, art and writing materials, or photos to share their observations of a plant; dictate a description of their plant to the teacher)
- › Generate explanations about how or why things happen (which may or may not be scientifically correct) based on evidence from their own experience (e.g., heavy things sink because rocks sink; snails will like pizza because I like pizza)

### 48-60m

*Continued from previous*

- › Plan and carry out simple investigations independently or in a small group to answer a cause-and-effect question, test a prediction, or solve a problem (e.g., blow on different objects to find out if or how each one moves; with encouragement, place plants in different conditions and observe, measure, and record their growth)
- › Identify increasingly complex relationships in the designed and natural worlds (e.g., explain why a spoon and fork are made differently based on how they are used; describe how a familiar animal's body parts help it move about and find food)
- › Use demonstration, drawings, photos, and models, to record, represent, and communicate their experiences and ideas with others in group discussions
- › Increasingly be able to make inferences and construct explanations (which may or may not be scientifically correct) based on a wider range of experiences (e.g., make a drawing that shows where they think rain comes from; talk about what they think a worm's home looks like and why they think so)





## Component 2: Physical Science

**Standard 2.a:** Children gain increasing knowledge of basic concepts related to the properties of objects and materials, forces and motion, and energy (light and sound).

By the following age ranges, children typically, for example:



**0-9m**

- › Explore the properties of objects and materials placed in their hands (e.g., handle a small toy and bring it to their mouth)
- › Notice, observe, and explore movement of objects (e.g., drop food from highchair; kick mobiles; open and close things)
- › Respond to sounds in their immediate environment (e.g., startle to loud noises; quietly attend to familiar voices; turn toward new sounds; make and repeat some sounds; shake arms to music)

*Continued*



**9-18m**

- › Explore the properties of liquids and solids (e.g., squeeze, pat, and push on playdough; dump containers of water and sand)
- › Act on objects in different ways to make them move (e.g., experiment with push and pull toys; stack, knock down, and restack two or three blocks)
- › Choose items for play and routines based on their physical properties (e.g., choose a soft blanket or toy for rest-time)
- › Attend to music and move their whole bodies or sway to musical sounds



**18-24m**

- › Express interest in how properties of objects and materials change and can be changed (e.g., notice ice melting, puddles forming and disappearing, bread changing to toast)
- › Describe properties of objects and materials using one or two words (e.g., wet, cold, soft, big)
- › Explore motion and how objects with different properties move (e.g., fill a wagon and try to pull it; roll balls; pull toy trains)
- › Experiment with making different sounds using their voices (e.g., louder and softer sounds; higher and lower sounds)

*Continued*



**24-36m**

- › Demonstrate beginning understanding that different objects have properties that make them useful for different purposes (e.g., choose markers vs. pencils for different scribbling and drawing activities; choose hard vs. soft blocks for different building activities)
- › Imitate using familiar objects and tools for specific functions (e.g., use toy telephones for talking, play food for cooking play, blocks for building and hammering)
- › Demonstrate beginning understanding of ways in which the motion of objects can be changed (e.g., push a rolling toy with different degrees of force; pedal a tricycle harder to make it go faster)

*Continued*



**36-48m**

- › Make and describe observations of properties using words to describe color, size, shape, color, weight, texture.
- › Sort a variety of objects into groups according to their physical properties or functions (e.g., sort by color, shape, size, use, or whether a material is natural or human-designed)
- › Choose objects for play based on one salient property (e.g., choose the tallest block to represent a tower; choose the fastest ball based on color)

*Continued*



**48-60m**

- › Make, describe, and compare increasingly detailed observations of objects' properties (e.g., color, size, shape, texture, odor, material, features, use, sound, natural, or human-designed)
- › Consider multiple object properties when making predictions and doing investigations (e.g., explain that a wiffle ball will sink because it has holes that will let in the water; predict that the smallest, lightest ball will win the race)

*Continued*



## Component 2: Physical Science

**Standard 2.a:** Children gain increasing knowledge of basic concepts related to the properties of objects and materials, forces and motion, and energy (light and sound).

Continued from previous:

### 0-9m

*Continued from previous*

- › Notice and attend to lights and objects that move and/or have light/dark contrasts (e.g., young infants may stare at ceiling fans; older infants may express fear of the dark)

### 9-18m

*See previous*

### 18-24m

*Continued from previous*

- › Attend to environmental sounds and identify the sources of familiar sounds (e.g., a dog barking, rain falling)
- › Notice and begin to explore their own shadows (e.g., move their bodies in different ways to see what their shadow does; may express fear of their shadows)

### 24-36m

*Continued from previous*

- › Play with objects in different ways to explore the characteristics of the sounds that can be made with them (e.g., bang on containers and drums; shake sound canisters harder or softer; yell or whisper into cardboard tubes)
- › Explore shadows and reflections with increasing intentionality (e.g., move a flashlight in different ways to make a shadow dance or to change its size and shape; move a small mirror around to observe how their reflection changes)

### 36-48m

*Continued from previous*

- › Explore motion of objects with increasing planning and intentionality (e.g., put objects on different inclines to observe how they roll, slide, or stay put; test different objects in water to find out if they sink or float)
- › Demonstrate increasing understanding of how shadows change, and when and where they appear (e.g., represent differences between themselves and their shadows; observe how their shadows change size, shape, and position at different times of day)
- › With support, gain awareness of the characteristics of sound (e.g., demonstrate differences between loud and soft sounds and high and low sounds using musical instruments or their voices)

### 48-60m

*Continued from previous*

- › Demonstrate increased understanding of structure and function in the natural and designed world (e.g., describe why spoons and forks are made differently based on their uses; design their block buildings differently depending on how people use the building)
- › Demonstrate understanding that properties of objects and materials may change when they are heated, cooled, or mixed (e.g., explain how a new color is made by mixing two other colors; predict that water will freeze at a colder temperature)
- › Demonstrate understanding that applied and natural forces cause things to move or change speed or direction (e.g., place walls along their ramps so toy cars won't roll off; explain that the wind causes leaves to shake)





## Component 3: Earth and Space Science

**Standard 3.a:** Children gain increasing knowledge of the features of earth and space, the components of weather, and how all living things depend on natural resources to survive.

By the following age ranges, children typically, for example:



**0-9m**

- › Use all of their senses to explore natural items placed in their hands



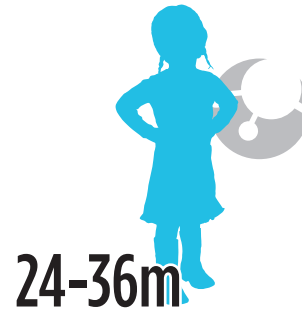
**9-18m**

- › Explore Earth's natural materials when outdoors using multiple senses (e.g., feel the textures of sand, grass, and dirt; sniff plants; notice feel of wind; pick up rocks and fallen branches)
- › Attend to and explore weather-related phenomena (e.g., demonstrate feeling hot or cold, dig in sand, splash in puddles, put snow in their mouths)



**18-24m**

- › Explore properties of Earth's materials through play (e.g., pile rocks, shells, cones, and sticks; look for puddles to splash in)
- › Notice and point out objects in the sky (e.g., clouds, airplanes, birds, sun, and moon)
- › Begin to associate different types of animals with the parts of the environment where they can be found (e.g., birds are in trees; ants are on the sidewalk)
- › Name and describe properties of natural items (e.g., heavy, sticky, small, pretty)



**24-36m**

- › Observe characteristics of natural objects and materials noticing similarities and differences (e.g., express preferences for different sizes, shapes, and colors of leaves)
- › Begin to understand that weather includes different components (e.g., identify presence of sun, wind, rain, and clouds on a given day)
- › Demonstrate an understanding that different weather requires different clothing (e.g., seeing newly fallen snow outside and getting boots and mittens)
- › Demonstrate beginning understanding that different animals make their homes in different parts of the environment (e.g., worms live underground; birds and squirrels live in trees)



**36-48m**

- › Begin to intentionally incorporate natural objects and materials into play (e.g., build a home for a real or imaginary creature using natural materials; pretend a pile of rocks is a campfire or stove)
- › Begin to understand that different components of weather can be measured (e.g., rainfall, temperature) and that weather can be predicted (e.g., dark clouds mean rain)
- › Demonstrate increasing awareness of objects in the sky and how they appear (e.g., including sun and clouds in representations)

*Continued*



**48-60m**

- › Use increasingly complex vocabulary to describe natural elements
- › Demonstrate a beginning understanding that designed objects are made from natural materials (e.g., wooden tables and toys are made from trees)
- › Describe changes that occur in the natural environment over increasingly long periods of time (e.g., seasonal changes in temperature, rain, or snowfall across the year)

*Continued*



# SCIENCE

## Component 3: Earth and Space Science

**Standard 3.a:** Children gain increasing knowledge of the features of earth and space, the components of weather, and how all living things depend on natural resources to survive.

Continued from previous:

**0-9m**

*See previous*

**9-18m**

*See previous*

**18-24m**

*See previous*

**24-36m**

*See previous*

**36-48m**

*Continued from previous*

- › Identify places where natural resources (e.g., water) can be found in their local environment and different ways people and other animals use it (e.g., drinking, bathing, swimming)

**48-60m**

*Continued from previous*

- › Demonstrate a beginning understanding that the sky and objects in it appear to change over time (e.g., the moon appears to change shape on subsequent nights; the sun seems to move in the sky during the day)
- › Demonstrate a beginning understanding that all plants and animals depend on the environment to survive (e.g., describe the needs of different animals for food, water, and a specific place to live)





# SCIENCE

## Component 4: Life Science

**Standard 4.a:** Children begin to learn about the characteristics, needs, and life cycles of living things and how they get their needs met within a particular environment.

By the following age ranges, children typically, for example:



**0-9m**

- › Notice and investigate their own body parts (e.g., play with their fingers or toes)
- › Express their own needs and seek to get them met by crying, lifting their arms, and/or other attention-seeking behaviors



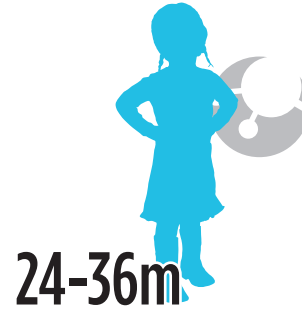
**9-18m**

- › Explore the characteristics of living things (e.g., petting a cat or dog and feeling its soft fur)
- › Begin to identify animals based on salient characteristics (e.g., call all animals with fur and four legs a “doggy”)
- › Begin to understand that they have different body parts that can be named (e.g., point to eyes, nose, and mouth when asked to do so)



**18-24m**

- › Observe and respond to animals outdoors (e.g., when outside, follow a butterfly or insect to see where it goes)
- › Begin to distinguish different types of animals based on more specific characteristics and behaviors (e.g., pigs are pink, cows are big and say moo, dogs bark)
- › Begin to demonstrate an awareness of the needs of living things (e.g., imitating caretaking behaviors with a doll or stuffed animal)
- › Begin to distinguish between things that are alive and not alive (e.g., interact differently with a real dog and a toy dog)



**24-36m**

- › Make increasingly detailed observations of the characteristics and behaviors of living things (e.g., representations of people begin to include eyes, mouths, and stick arms and legs)
- › Begin to understand that baby animals often resemble their parents (e.g., match photos of adult animals with their babies)
- › Begin to recognize diversity and variation in living things (e.g., notice that children in the classroom have different colors of skin, hair, and eyes)
- › Begin to associate specific animals with the environments in which they get their needs met (e.g., match pictures of familiar animals with their homes)

*Continued*



**36-48m**

- › Group animals based on their characteristics and/or where they can be found (e.g., sort animals into categories such as animals with fur or animals that live in the water)
- › Identify ways in which specific living things grow and develop over time and what they need to live (e.g., describe a plant’s growth and that it needs water and sun)
- › Demonstrate an increasing understanding of diversity and variation (e.g., describe or represent similarities and differences among animals’ characteristics, needs, and homes with increasing detail)

*Continued*



**48-60m**

- › Describe the characteristics that define living things
- › Compare, contrast, and/or categorize different types of plants and animals
- › Begin to distinguish between wants and needs of living things
- › Generate ideas about needs that living things and/or all animals share and how their specific needs may be different (e.g., all animals need food, but they eat different foods)
- › Ask and answer questions about changes in the appearance, behavior, and habitats of living things

*Continued*



## Component 4: Life Science

**Standard 4.a:** Children begin to learn about the characteristics, needs, and life cycles of living things and how they get their needs met within a particular environment.

Continued from previous:

### 0-9m

*See previous*

### 9-18m

*See previous*

### 18-24m

*See previous*

### 24-36m

*Continued from previous*

› Begin to express an awareness that living things grow and develop (e.g., express an interest and pride in how they are physically growing and developing new skills)

### 36-48m

*Continued from previous*

› Demonstrate an increasing understanding of the difference between living and nonliving things (e.g., describe that living things eat, breathe, move, and play or that they need beds and families)

### 48-60m

*Continued from previous*

› Wonder and think about how animals adapt to different weather conditions and where they go when not found in the environment  
› Make inferences about why specific plants or animals live where they do and how they get their needs met in that place







# SOCIAL STUDIES

2023

The field of social studies is interdisciplinary, and intertwines concepts relating to government, civics, economics, history, sociology, and geography. Through social studies, children can explore and develop an understanding of their place within and relationship to family, community, environment, and the world. Social studies learning supports children's emerging understanding of social rules, and their ability to recognize and respect personal and collective responsibilities as necessary components for a fair and just society. By engaging with familiar adults and peers through the course of their everyday lives, children across the birth through five continua are introduced to the different perspectives that they and others share and to life within their community – such as an understanding of principles of community care, supply and demand, occupations, and currency (Civics & Government and Economics). In addition, social studies learning helps children to develop an awareness of the passage of time and diversity (History), and place (Geography). As children learn about their own history, the history of others, and the diversity in the environment in which they live, they place themselves within a broader context of the world around them and can think beyond the walls of their home and early childhood classroom.

Children with disabilities may demonstrate alternate ways of meeting the goals of social studies development. Children with a cognitive disability may reach many of these same goals but at a different pace, with a different degree of accomplishment, and in a different order than their peers. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support the social studies development of all children.

**Remember:** While this domain represents general expectations for social studies development, each child will reach the individual learning goals at their own pace and in their own way. As you plan social studies learning experiences, it will be important to reflect upon the diversity of the children in your classroom and how the components within this domain can be represented in ways that are meaningful to children's individuality, their family, their homes, and their community.

SS 1: Civics & Government

SS 3: History

SS 2: Economics

SS 4: Geography





# SOCIAL STUDIES

## Component 1: Civics & Government

**Standard 1.a:** Children develop awareness that care of the community through personal responsibility, agreed-upon rules, and conflict resolution are important components of a fair and just society.

By the following age ranges, children typically, for example:



**0-9m**

- › Demonstrate preference for familiar versus unfamiliar adults



**9-18m**

- › Look to caregivers for assistance, guidance, and safety
- › Show anticipation of daily events
- › Express emotion relating to a conflict (e.g., cry, express frustration)



**18-24m**

- › Demonstrate an understanding of simple rules and prompts, such as stop but do not consistently follow rules
- › Observe and imitate simple routines and actions of family members and other familiar peers and adults (e.g., shadow parent when wiping table)
- › Express emotion relating to a conflict (e.g., use some language to express emotion, such as “No.” or “Mine.”)
- › Begin to recognize a sense of belonging to a group, such as a class or family (e.g., point to family members in pictures)



**24-36m**

- › Follow simple rules with adult assistance (e.g., with adult prompts, take turns, and use their walking feet in the classroom)
- › Participate in routines with adult support (e.g., clean up toys with adult prompts)
- › Communicate about a conflict and seek help from adults to solve or try to solve themselves even if their approaches are not always effective or the most appropriate (e.g., ask adult to intervene; use language such as “I want that!”; taking or giving toys)
- › Communicate a sense of belonging to a group such as a class or family (e.g., participate in decision-making; talk about family)



**36-48m**

- › Describe and demonstrate awareness of group rules and understand that there may be different rules for different contexts (e.g., say “we wash hands after recess” to describe classroom sanitary rules; walking inside, running outside).
- › Take part in the responsibilities of being in a family or group and helping others (e.g., assist peer with cleaning up a learning center)
- › Begin to participate in problem-solving and decision-making (e.g., tell another child to wait for their turn on the slide)



**48-60m**

- › Demonstrate understanding of the need for rules in the home, classroom, and/or community and what happens when rules are not followed (e.g., understand that outdoor toys must be cleaned up to come inside)
- › Seek out opportunities for leadership (e.g., volunteer to feed the class fish or set the table for snack)
- › Suggest ways to resolve social conflicts independently and in cooperation with others (e.g., tell peer to “use their words” instead of hitting)
- › Begin to explore basic principles of democracy (e.g., participating in class voting, respecting opinions of others, creating rules)
- › Begin to recognize symbols that represent groups or communities (e.g., school mascot or symbol; flag and eagle)



# SOCIAL STUDIES

## Component 2: Economics

**Standard 2.a:** Children demonstrate increasing knowledge of basic economic concepts such as supply and demand, occupations, and currency.

By the following age ranges, children typically, for example:

Age Range	0-9m	9-18m	18-24m	24-36m	36-48m	48-60m
Illustration						
Examples	<ul style="list-style-type: none"> <li>› Experience basic supply and demand, such as an abundance of or limited access to a resource (e.g., squealing in excitement when a lot of balls are poured out, crying when they are unable to reach a toy)</li> </ul>	<ul style="list-style-type: none"> <li>› Engage with materials that represent different occupations from what they see in their environment (e.g., push a firetruck and make the noise of a siren, help get the mail from the mailbox)</li> <li>› Begin to engage in principles of economic exchange through trade (e.g., offer another toy to get another child to drop a toy they want)</li> </ul>	<ul style="list-style-type: none"> <li>› Identify occupations familiar people have (e.g., put on a hardhat to build in the block center)</li> <li>› Demonstrate greater understanding of supply and demand (e.g., rush to get limited playground materials once outside)</li> </ul>	<ul style="list-style-type: none"> <li>› Express understanding of occupations (e.g., pointing out the workers in the sanitation truck or pretending, “Let’s cook some food for our restaurant”)</li> <li>› Show a beginning understanding of the purpose of money to get a desired object (e.g., draw a picture of themselves wearing red shoes and communicate that “on payday I get new shoes”)</li> </ul>	<ul style="list-style-type: none"> <li>› Communicate the roles and purposes of several occupations, especially those the child is familiar with (e.g., communicate that “firemen are our helpers—they put out fires, and they helped my grandma when she fell down”)</li> <li>› Demonstrate awareness of the relationship between jobs, money, and its exchange (e.g., play store in dramatic play where play money is exchanged for a good)</li> <li>› Explore ways people have to meet their needs (e.g. helping in the community garden, pretending to grocery shop)</li> </ul>	

“

Play is the serious and necessary occupation of children; it’s not just a pleasant hobby or a frivolous means of spending nonworking hours.

- Vivian Gussin Paley

”



# SOCIAL STUDIES

## Component 3: History

**Standard 3.a:** Children develop an understanding of the passage of time as it relates to historical changes in events, people, and the world.

By the following age ranges, children typically, for example:



**0-9m**

- › Show anticipation for routine activities



**9-18m**

- › Imitate simple actions observed in the recent past (e.g., walk a stuffed animal dog; feed a baby doll)



**18-24m**

- › Follow routines with simple sequences of events practiced in the past with adult assistance (e.g., put backpack in cubby when they arrive; wash hands after breakfast)
- › Begin to understand the passage of time and the meaning of phrases like “after lunch”



**24-36m**

- › Demonstrate an awareness of a daily routine (e.g., say “We go outside after we have snack”; get blanket when ready for naptime)
- › Begin to connect past and present experiences (e.g., discuss how they can do a skill because they are a big kid now).
- › Recognize familiar people even though there may be slight differences in their appearance (e.g., new haircut, taller)



**36-48m**

- › Communicate routine events or activities that happened earlier in time using basic vocabulary but not always accurately, (e.g., today, tomorrow, or yesterday)
- › Recall information about the immediate past (e.g., tell parents during pick-up what they did at school today; explain how they saw a squirrel on their walk)
- › Distinguish older family from younger ones and recent past events from events that happened long ago (e.g., communicate that “Grandpa is coming soon, I haven’t seen him for a long time—since I was a baby”)
- › Explore changes that take place over time in the immediate environment (e.g., match pictures of baby animals with adult animals; observe growth of plants in gardens)



**48-60m**

- › Understand and accurately communicate daily routines and sequences of events and experiences in the context of time, using appropriate vocabulary (e.g., retells: “Yesterday I went home after lunch but today I’m going home after rest.”)
- › Show improving ability to differentiate and discuss past, present, and future events (e.g., recount a family story, share where they will go on vacation)
- › Develop an interest in family history and historical events (e.g., discuss when family members were children)
- › Observe and recognize that everything (people, events, the world) changes over time (e.g., recount the life cycle of a plant or butterfly)



# SOCIAL STUDIES

## Component 3: History

**Standard 3.b:** Children gain awareness of themselves and others as members of diverse families, communities, and cultures.

By the following age ranges, children typically, for example:



**0-9m**

- › Begin to explore characteristics of themselves (e.g., observe themselves in a mirror, look at their own hands and feet)
- › Demonstrate a preference for familiar versus unfamiliar adults (e.g., smile, kick legs, or reach when seeing a familiar person)



**9-18m**

- › Show awareness of the unique attributes of people (e.g., reach out to touch another's hair or face)
- › Use simple words to show recognition of family members (e.g., mama for mom)
- › Demonstrate curiosity about similarities and differences between people (e.g., looking longer at a person of a different race, noticing a change in someone's appearance)



**18-24m**

- › Refer to themselves by name
- › Explore characteristics of others
- › Identify immediate family members (e.g., recognize known people in pictures; respond to familiar family members and other adults)
- › Shadow adults in their work by imitating such activities as sweeping or picking up toys, and attempting to help



**24-36m**

- › Identify own traits and characteristics
- › Express curiosity about similarities and differences among people, families, and communities
- › Identify immediate family members and some extended family (e.g., create a representation of their family and identify their mommy and brother)
- › Engage in pretend play and act out different settings or events that happen at home (e.g., be a doll's daddy and use spoon to feed the doll)
- › With adult support, begin to share about community events or family activities they participated in (e.g., when asked, say "my family went to the beach" or explain how they went apple-picking last weekend)



**36-48m**

- › Recognize similarities and differences between themselves and others (e.g., say "Your hair is short, my hair is long")
- › Demonstrate an understanding of self as part of a family (e.g., communicate that they are a sister or daughter)
- › Engage in pretend play using objects as representations of something else (e.g., use a block as a phone or small rocks as dog food)
- › Identify cultural characteristics and/or traditions of self, family, and community (e.g., retell that "when there is no school, Tia makes pancakes for breakfast" or "we went to the parade")



**48-60m**

- › Use comparative language to describe similarities and differences among people and use themselves as a reference (e.g., say "That boy is bigger than me")
- › Engage in pretend play with other children that is planned and organized around a specific theme or task, often with assigned roles (e.g., play house and determine who is going to be the mommy and the baby; plan a veterinary clinic and the stuffed animals that they will care for)
- › Identify and express curiosity about similarities and differences among the physical and cultural characteristics of people, families, and communities (e.g., after looking at her classmate's self-portrait, say, "Why is everybody's hair different?" Or "My family speaks Spanish at home.")



# SOCIAL STUDIES

## Component 4: Geography

**Standard 4.a:** Children demonstrate knowledge of geographical concepts of location and physical characteristics of the environments in which they live.

By the following age ranges, children typically, for example:

0-9m



- › Notice their surroundings and develop basic spatial awareness (e.g., respond to sound stimuli by looking in that direction; look underneath a cup)

9-18m



- › Crawl or scoot to explore objects of interest
- › Explore different landscapes in their immediate environment (e.g., crawl up a small hill)

18-24m



- › Use spatial cues to find or describe the location of objects (e.g., “behind the bookshelf,” “on top of the table”)
- › Recognize familiar locations (e.g., shows anticipation when approaching home, or school)
- › Explore physical characteristics of land through play (e.g., picking up pinecones, climbing rocks, riding a balance bike down a hill)

24-36m



- › Follow directions to find and retrieve an object in specific locations
- › Point out familiar locations within the neighborhood (e.g., point to school when driving past the building)
- › Recognize basic physical characteristics (e.g., landmarks, land features)

36-48m



- › Use spatial terms to communicate with increasing specificity about the location of objects and familiar locations (e.g., far/close, over/under)
- › Identify landmarks or places through their logos and signs (e.g., familiar stores, churches, restaurants)
- › Create art that contains realistic elements (e.g., pointing to one of their drawings and saying, “This is our house.”)
- › Show recognition and/or interest in some geographic tools and resources such as maps, globes, or GPS.

48-60m



- › Create simple maps of familiar locations and talk about the things that are in certain areas (e.g., a bed or a closet in the bedroom)
- › Name own street, town and/or neighborhood
- › Create representations of different landforms and landmarks during play (e.g., using sand to make a mountain; creating a tunnel with blocks that represent the tunnel on the way to school)
- › Use geographic tools to identify landmarks in a specific location (e.g., use a globe to look for a pretend location during play)



# CREATIVE ARTS

2023

The arts provide children with a vehicle and organizing framework to express ideas and feelings. Music, movement, drama, and visual arts stimulate children to use words, manipulate tools and media, and solve problems in ways that simultaneously convey meaning and are aesthetically pleasing. As such, participation in the creative arts is an excellent way for young children to learn and use creative skills in other domains. The component within this domain addresses a child's willingness to experiment with and participate in the creative arts.

Children with disabilities may demonstrate alternate ways of meeting the goals of creative arts development. Children who cannot speak, for example, will focus on activities that are rhythmic rather than vocal, and children with hearing impairments will be able to respond to music by feeling the vibrations in the air. Children with cognitive disabilities also may reach many of these same goals, but at a different pace, with a different degree of accomplishment, and in a different order than typically developing children. However, the goals for all children are the same, even though the path and the pace toward realizing the goals may be different. Principles of universal design for learning (UDL) offer the least restrictive and most inclusive approach to developing environments and curricula that best support participation in creative arts for all children.

**Remember:** While this domain represents general expectations for creative arts development, each child will reach the individual learning goals at their own pace and in his or her own way.



## CA 1: Experimentation and Participation in the Creative Arts



# CREATIVE ARTS

**Component 1:** Experimentation and Participation in the Creative Arts

**Standard 1.a:** Children gain an appreciation for and participate in the creative arts related to music & movement, drama, and the visual arts.

By the following age ranges, children typically, for example:



0-9m

- › Make eye contact with singers and imitate by babbling during or after an adult sings or chants
- › Use objects as tools to make sounds, for example, banging blocks together with adult help
- › Respond to music and being sung to by listening and moving bodies (e.g., their heads, arms, and legs) with some intent and control
- › Engage in social play with adults
- › Show curiosity and explore sensory materials; enjoy feeling various pleasing sensations and textures
- › Attend to bright and/or contrasting colors in pictures, photographs, and/or mirror images



9-18m

- › Use facial expressions, sound (e.g., vocalization, clapping), and movement to encourage singers, music, or finger plays to continue or in response to cues.
- › Enjoy producing music and other sounds with simple instruments (e.g., triangles, tambourines, etc.)
- › Recognize and associate a certain song or sound with a particular meaning (e.g., hear a naptime song and think that it's safe, secure, and time to nap)
- › Stand with feet wide apart and sway to the sound of music

*Continued*



18-24m

- › Talk or sing to themselves for comfort or enjoyment (e.g., repeat the same song over and over)
- › "Play" musical instruments (e.g., attempt tap on a drum, press keys of a piano, ring a bell)
- › Dance to music in a group with support from adults
- › Explore roles through imaginative play, such as saying "boo" to an adult and acting scared when the adult says "boo" to them
- › Seek out imaginative play opportunities with trusted adults
- › Use a variety of art materials with increasing purpose (e.g., squeeze soft clay and dough into abstract shapes)

*Continued*



24-36m

- › Imitate simple songs and finger-play movements (e.g., imitate Itsy-Bitsy Spider finger movements but may not know all of song lyrics)
- › March with musical instruments with support from adults
- › Dance alone or with others
- › Use imaginative play as a vehicle to express their own life experiences and familiar stories
- › Watch and copy other children's play activities
- › Create representations of real objects in artwork and tell about their artistic creation
- › Demonstrate preferences for favorite colors

*Continued*



36-48m

- › Recite familiar songs and fingerplays (e.g., Twinkle, Twinkle Little Star, ABC song)
- › Explore musical instruments and use them to produce rhythms and tones
- › Begin to move their bodies with increasing control and expression
- › Act out the plots and characters found in familiar stories
- › Participate in pretend play with other children
- › Identify and sometimes name the content in their work of art (e.g., "I made a dog, and his name is Spot")

*Continued*



48-60m

- › Plan and create new songs and dances or add their own words to songs with support from adults
- › Apply vocal skills to instruments to produce more complex rhythms, tones, melodies, and songs
- › Move their bodies with increasing skill to express emotions and rhythms
- › Write and act out stories based upon familiar topics or characters
- › Intentionally plan and create content in a work of art and show persistence in completing it (e.g., a picture, a playdough sculpture, etc.)

*Continued*





# CREATIVE ARTS

**Component 1:** Experimentation and Participation in the Creative Arts

**Standard 1.a:** Children gain an appreciation for and participate in the creative arts related to music & movement, drama, and the visual arts.

Continued from previous:

## 0-9m

See previous

## 9-18m

Continued from previous

- › Engage in more complex play sequences based on an understanding of everyday events and routines (e.g., pretend to drink from a cup and then say “Ah!” when finished)
- › Use a variety of materials in exploring and creating visual art (e.g., create marks with crayons, paint, or chalk)
- › Scribble spontaneously on paper or in sensory materials (e.g., sand; shaving cream)

## 18-24m

Continued from previous

- › Scribbles become more controlled with repeated motions (e.g., series of horizontal lines; sometimes naming their scribbles)

## 24-36m

Continued from previous

- › Begins to draw people with circle type head with arms and legs

## 36-48m

Continued from previous

- › Notice and communicate about the content of art, music, and drama (e.g., “I like dogs” to describe a picture of a dog)
- › Choose their own art for display in the classroom or for inclusion in a portfolio or book (e.g., bring drawing to their mailbox)
- › Begins adding more detail to drawings of people adding arm with fingers and more elaborate faces

## 48-60m

Continued from previous

- › Engage with displays of visual art, music, and drama, and may express preferences for types of artwork or art activities
- › Communicate about the composition of and elements appearing in art, music, and drama in increasing detail (e.g., “I like that drawing because they used lots of stars.”)
- › Choose own art for display in the classroom or for inclusion in a portfolio or book and explain their choices and preferences in some detail (e.g., “I used the color red and red is my favorite color.”)
- › Draws people with even more detail such as hair, eyelashes, trunks for bodies, and hands with fingers



Play is often talked about as if it were relief from serious learning. But for children play is serious learning. Play is really the work of childhood.

- Fred Rogers



# GLOSSARY

**Accommodation** Service or support related to a student's disability that allows her or him to fully access a given subject matter and to accurately demonstrate knowledge without requiring a fundamental alteration to the assignment's or test's standard or expectation.  
(Retrieved from the online dictionary, Iris Center, Vanderbilt University: [http://iris.peabody.vanderbilt.edu/resource\\_TOOL\\_dict/onlinedictionary\\_table.php?letter=ALL](http://iris.peabody.vanderbilt.edu/resource_TOOL_dict/onlinedictionary_table.php?letter=ALL))

**Adaptation** A generalized term that describes a change made in the presentation, setting, response, timing or scheduling of an activity or assessment that may or may not change the construct of the activity or assessment.  
(Based upon definition from the Council of Chief State School Officers (2006). *Assessing Students with Disabilities: A Glossary of Assessment Terms in Everyday Language*. Retrieved from [http://www.ccsso.org/Documents/2006/Assessing\\_Students\\_with\\_Disabilities\\_Glossary\\_2006.pdf](http://www.ccsso.org/Documents/2006/Assessing_Students_with_Disabilities_Glossary_2006.pdf))

**Adapting instruction** To make changes to classroom instruction in order to allow students equal access to the curriculum and to give students the opportunity to both process and demonstrate what has been taught; instructional adaptations can include both accommodations and modifications.  
(Retrieved from the online dictionary, Iris Center, Vanderbilt University: [http://iris.peabody.vanderbilt.edu/resource\\_TOOL\\_dict/onlinedictionary\\_table.php?letter=ALL](http://iris.peabody.vanderbilt.edu/resource_TOOL_dict/onlinedictionary_table.php?letter=ALL))

**Adaptive equipment** See 'Assistive technology device'

**Alternative and augmentative communication** A term used to describe the different methods that can be used to help people with disabilities communicate with others. These methods can be used as an alternative to speech or to supplement it and can include individual methods of sign and gestures, standardized signing, symbol systems, and complex electronic devices.  
(Retrieved from the Council of Chief State School Officers (2006). *Assessing Students with Disabilities: A Glossary of Assessment Terms in Everyday Language*: [http://www.ccsso.org/Documents/2006/Assessing\\_Students\\_with\\_Disabilities\\_Glossary\\_2006.pdf](http://www.ccsso.org/Documents/2006/Assessing_Students_with_Disabilities_Glossary_2006.pdf))

**Assistive technology device** As defined in Section 602 of the Individuals with Disabilities Education Act (1997), an assistive technology device is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain or improve the functional capabilities of a child with a disability.  
(Retrieved from the Council of Chief State School Officers (2006). *Assessing Students with Disabilities: A Glossary of Assessment Terms in Everyday Language*: [http://www.ccsso.org/Documents/2006/Assessing\\_Students\\_with\\_Disabilities\\_Glossary\\_2006.pdf](http://www.ccsso.org/Documents/2006/Assessing_Students_with_Disabilities_Glossary_2006.pdf))

**Augmentative communication system** One of a family of alternative methods of communication, which includes communication boards, communication books, sign language, and computerized voices; used by individuals unable to communicate readily through speech.  
(Retrieved from the online dictionary, Iris Center, Vanderbilt University: [http://iris.peabody.vanderbilt.edu/resource\\_TOOL\\_dict/onlinedictionary\\_table.php?letter=ALL](http://iris.peabody.vanderbilt.edu/resource_TOOL_dict/onlinedictionary_table.php?letter=ALL))

**Authentic experiences** Experiences are 'authentic' in the sense that they take place in the real-life contexts where young children naturally find themselves, and are embedded in tasks that children see as significant, meaningful and worthwhile. Authentic experiences are situated in meaningful contexts that reflect the way tasks might be found and approached in real life.

**Benchmarks** Benchmarks are preferred points within the design of a document that describe the knowledge and skills that all children should know and be able to do, in relation to specific development and learning goals, by the time they reach a certain age  
(Based upon a definition retrieved from the Council of Chief State School Officers (2006). *Assessing Students with Disabilities: A Glossary of Assessment Terms in Everyday Language*: [http://www.ccsso.org/Documents/2006/Assessing\\_Students\\_with\\_Disabilities\\_Glossary\\_2006.pdf](http://www.ccsso.org/Documents/2006/Assessing_Students_with_Disabilities_Glossary_2006.pdf))

**Best practices** Term used to describe instructional techniques, scientifically based practices, or methods found through research or experience to be the "best" ways to achieve desired outcomes.



# GLOSSARY CONTINUED

**Codeswitch** The use of both home language and English to convey a message.  
(from Alex Figueras, NIEER)

**Constructive play** Play in which children engage in active inquiry and construct knowledge through creative exploration with materials.  
Retrieved from: [http://www.isaeplay.org/Resource\\_Articles/YC\\_Constructive\\_Play.pdf](http://www.isaeplay.org/Resource_Articles/YC_Constructive_Play.pdf) on March 20, 2013.

**Conventions of print** The understanding that when language is written down, it is transcribed in a standard, uniform manner so that words and ideas communicated through writing are consistently and easily understood by all readers.

Conventions of print include the following:

- **Directionality:** language is written and in a standard format (e.g. English is read and written from left to right and from top to bottom)
- **Punctuation:** communicates meaning and expression to readers
- **Space:** Writers use space to separate ideas, indicate when readers should pause for thought, and to separate words so that they are easily read
- **Case:** Letters come in two forms, uppercase and lower case. Case can provide additional meaning to readers about the beginning of new ideas and indicates to the reader whether a noun is describing a specific person, place, or thing
- **Grammar:** Written language subscribes to the rules affecting the form words can take including verb tense, plurals, possessives, and modifiers like adverbs and adjectives.
- **Usage:** Writers understand how incomplete sentences, run-on sentences, and improper use of pronouns can impede effective communication of ideas.
- **Spelling:** Words are spelled according to convention so that they are easily read by others to facilitate effective communication.

(Retrieved from the online dictionary, Literacy Builders: <http://www.literacy-builders.com/free-resources/156-conventions-of-print-literacy-a-z>)

**Curriculum** An evidence-based written plan that describes program practices for supporting the learning of each child based on their individual developmental levels, learning styles and interests, and is informed by the RI Early Learning and Development Standards and/or Common Core State Standards/Grade Level Expectations for kindergarten.

**Developmental delay** Term used to encompass a variety of disabilities in infants and young children indicating that they are significantly behind the norm for development in one or more areas, including motor development, socialization, independent functioning, cognitive development, or communication.  
(Retrieved from the online dictionary, Iris Center, Vanderbilt University: [http://iris.peabody.vanderbilt.edu/resource\\_TOOL\\_dict/onlinedictionary\\_table.php?letter=ALL](http://iris.peabody.vanderbilt.edu/resource_TOOL_dict/onlinedictionary_table.php?letter=ALL))

**Developmental milestone** Significant cognitive, physical, social emotional changes in children’s abilities and are used as guidelines for determining whether children are developing as expected in relation to other children at the same age (e.g., rolling over, sitting up without support, crawling, pointing to get an adult’s attention, walking, and talking).

**Developmentally Appropriate Practice** Developmentally appropriate practice, often shortened to DAP, is an approach to teaching grounded both in the research on how young children develop and learn and in what is known about effective early education. Its framework is designed to promote young children’s optimal learning and development.  
(Retrieved from: <http://www.naeyc.org/DAP>)

**Digital texts** Digitized content including text, graphics, audio, and video that can be transmitted over the internet or computer networks.

**Domains (of early learning)** Domains are general areas of child development



# GLOSSARY CONTINUED

**Dual language learner** Children who are Dual Language Learners acquire two or more languages simultaneously, as well as learn a second language while continuing to develop their first language. The term “dual language learners” encompasses other terms frequently used, such as Limited English Proficient (LEP), bilingual, English language learners (ELL), English learners, and children who speak a language other than English (LOTE).

(Retrieved from the Glossary of Terms, Head Start National Center on Cultural and Linguistic Responsiveness: [http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/Dual%20Language%20Learners/dll\\_%20resources/glossary-ofterms.htm](http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/Dual%20Language%20Learners/dll_%20resources/glossary-ofterms.htm))

**Environmental print** Words and symbols of everyday life: the symbols, signs, numerals, and colors found in road signs (e.g. stop, crosswalk, or school signs). Also includes print used for a purpose, such as classroom rules, attendance, charts, and posters.

**Executive functioning** Executive function is an umbrella term used to refer to a variety of interdependent skills that are necessary for purposeful, goal-directed activity, such as when stringing beads – the child must have a plan, regulate their movements, sequence the steps, problem solve, modifying plans about which beads will fit, which are too hard to string, and finding one with a bigger hole. Executive functions entail: self-regulation, sequencing of behavior, flexibility, response inhibition, planning, and organization of behavior.

(From *Neurons to Neighborhoods*, 2000, p. 116)

**Expressive play** Play in which children develop the ability to express their own emotions and feelings, while also providing opportunities to interpret the emotions of others.

**Family** 1. a unit of love and nurturing; 2. a child’s primary caregiver; a parent, a relative, or someone outside the biological family who has assumed the primary responsibility for caring for and raising a child.

**Fantasy play** Play in which children assume the roles of characters and act out story lines. Through fantasy play children develop flexible thinking; learn to create beyond the here and now; stretch their imaginations; use new words and word combinations in a risk-free environment; and use numbers and words to express ideas, concepts, dreams, and histories.

(Based upon a definition from *Early Childhood News*: [http://www.earlychildhoodnews.com/earlychildhood/article\\_view.aspx?ArticleID=127](http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=127))

**Fine (small) motor skills** Skills which require the coordinated use of small muscle groups such as hands and fingers and frequently involve eye-hand coordination. Fine motor skills are necessary to engage in smaller, more precise movements of the hands and fingers.

**Formulaic speech** Speech characterized by formulas or chunks and phrases that the child uses without completely understanding how they function in the language (expressions that are learned as a whole, e.g., “I don’t know”)

(Retrieved from the State of California Dual Language Learners Glossary: <http://www.cpin.us/dll/glossary.html>)

**Grammar** The system of rules by which words are formed and put together to make sentences.

(Retrieved from the State of California Dual Language Learners Glossary: <http://www.cpin.us/dll/glossary.html>)

**Gross (large) motor skills** Skills which require the use and coordination of large muscle groups, such as those in the arms, legs and trunk for movement activities.

**Home language** The language that is used primarily by the child’s family in the home environment. For some children, there may be more than one home language (e.g., when the mother speaks Chinese and the father speaks English).

(Retrieved from the State of California Dual Language Learners Glossary: <http://www.cpin.us/dll/glossary.html>)



# GLOSSARY CONTINUED

**Intentional teaching** “To be ‘intentional’ is to act purposefully, with a goal in mind and a plan for accomplishing it. Intentional acts originate from careful thought and are accompanied by consideration of their potential effects. Thus teachers who are acting intentionally have clearly defined learning objectives for children, employ instructional strategies likely to help children achieve the objectives, and continually assess progress and adjusts the strategies based on that assessment. The teacher who can explain just why she is doing what she is doing is acting intentionally— whether she is using a strategy tentatively for the first time or automatically from long practice, as part of an elaborate set up or spontaneously in a teachable moment.”  
(Definition from: Epstein, A.S. (2007). The Intentional Teacher: Choosing the Best Strategies for Young Children’s Learning, National Association for the Education of Young Children)

**Manipulatives** Concrete objects used by children to explore, experiment, and make meaning

**Motor / Physical Play** Motor play provides critical opportunities for children to develop both individual gross and fine muscle strength and an overall integration of muscles, nerves, and brain functions.  
(Based upon a definition from Early Childhood News: [http://www.earlychildhoodnews.com/earlychildhood/article\\_view.aspx?ArticleID=127](http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=127))

**Phoneme** The basic sounds of a language or the smallest units of sound that make a difference in a word’s meaning. The exact number of phonemes depends on the language itself. In English for example, there are 44 phonemes. Phonemes outnumber the letters of the English alphabet because combinations of letters represent different phonemes such as ch and th.  
(Retrieved from Glossary, Rhode Island’s Comprehensive Literacy Plan: [http://www.ride.ri.gov/Instruction/DOCS/RICLP/RICLP\\_Spring\\_2012.pdf](http://www.ride.ri.gov/Instruction/DOCS/RICLP/RICLP_Spring_2012.pdf))  
(Definition from: Caulfield, R.A.(2001). Infant and Toddlers. Prentice-Hall Inc.: Upper Saddle River, New Jersey)

**Play** Any freely sought activity that is pleasing to the “player.” It can be physical (bouncing up and down or riding a tricycle), imaginative (playing “peek-a-boo” or “dress-up”), creative (building with blocks or drawing pictures), social, or mental. And it can be any combination of these. Paradoxically, play is the most important work of childhood; it is the primary means by which children demonstrate early learning accomplishments.

**Play-based learning** A context for learning through which children organize and make sense of their social worlds, as they engage actively with people, objects and representations.  
(Retrieved from <http://www.ecceleadership.org.au/node/21>)

**Pragmatics** The effective use of language to communicate with others in a variety of conversational and social situations (e.g. points and gestures, waves bye-bye, uses words to communicate needs)  
(Retrieved from Glossary, Rhode Island’s Comprehensive Literacy Plan: [http://www.ride.ri.gov/Instruction/DOCS/RICLP/RICLP\\_Spring\\_2012.pdf](http://www.ride.ri.gov/Instruction/DOCS/RICLP/RICLP_Spring_2012.pdf))

**Print concepts** “Children’s understanding of letters, words, sentences, punctuation, and directionality of reading.”  
(Paris, S. G. (2011). Developmental differences in early reading skills. In S. B. Neuman and D. K. Dickinson (Eds.), Handbook of early literacy research (Vol. 3, pp. 232). New York: Guilford Press.)

**Scientific skills and methods** Process used to observe, plan, investigate test hypotheses (ideas), solve problems, and report on findings.  
(Retrieved from Glossary of Terms, Oregon Early Childhood Foundations: <http://www.ode.state.or.us/superintendent/priorities/ready4school/glossary.pdf>)

**Seriate** The ability to arrange objects in a specific order by gradual changes in attributes.  
(Definition taken from RIELS text)

**Social play** Interacting with others in play settings. Through social play children learn social rules such as, give and take, reciprocity, cooperation, and sharing; and learn to use moral reasoning to develop a mature sense of values.  
(Based upon a definition from Early Childhood News: [http://www.earlychildhoodnews.com/earlychildhood/article\\_view.aspx?ArticleID=127](http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=127))



# GLOSSARY CONTINUED

**Special Education** Special Education is specially designed instruction (adaptation of content, methodology or delivery of instruction) which meets the unique needs of a child with a disability while ensuring access to the general education curriculum.  
(Retrieved from Research Connections, Child Care & Early Education Glossary-  
<http://www.researchconnections.org/childcare/childcare-glossary>)

**Syllable** A syllable is a word part that contains a vowel or, in spoken language, a vowel sound (e-vent, news-pa-per).  
(Retrieved from Literacy Information and Communication System, Glossary of Reading Terms: <http://lincs.ed.gov/research/Glossary.html>)

**Synonym** A word having the same or nearly the same meaning as another in the language.

**Syntax** The ordering of and the relationship between the words and other structural elements in phrases and sentences.  
(Retrieved from The English Learning for Preschoolers Project, Glossary: <http://www.cpin.us/p/pel/glossary.htm>)

**Telegraphic speech** Speech characterized by the use of a few content words without functional words or certain grammatical markers, as in telegraphs. (e.g. Daddy, car)  
(Retrieved from the State of California Dual Language Learners Glossary: <http://www.cpin.us/dll/glossary.html>)

**Temperament** Traits that are biologically based and that remain consistent over time. Influences the quality and intensity of a person's emotional reactions to different situations  
(Definition from: Caulfield, R.A. (2001). Infant and Toddlers. Prentice-Hall Inc.: Upper Saddle River, New Jersey)

**Travelling skills** Motor skills in which the feet move the body from one place to another. They are (roughly in order of how children learn them): walking, running, hopping, jumping, skipping, galloping, sliding (a sideways gallop), leaping.

**Universal Design for Learning (UDL)** A research-based framework for teachers to incorporate flexible materials, techniques, and strategies for delivering instruction and for students to demonstrate their knowledge in a variety of ways.  
(Retrieved from the online dictionary, Iris Center, Vanderbilt University: [http://iris.peabody.vanderbilt.edu/resource\\_TOOL\\_dict/onlinedictionary\\_table.php?letter=ALL](http://iris.peabody.vanderbilt.edu/resource_TOOL_dict/onlinedictionary_table.php?letter=ALL))

**Writing conventions** The rules and guidelines taught to students for the development of their writing skills. The conventions are divided into three categories: grammar, punctuation, and usage.  
(Retrieved from <http://www.education.com/definition/conventions/>)

# CITATIONS

Aboud, F. E. (2008). A social-cognitive developmental theory of prejudice. In S. Quintana & C. McKown (Eds.), *Handbook of race, racism, and the developing child* (pp. 55–71). John Wiley & Sons, Inc.

Aboud, F. E., Tredoux, C., Tropp, L. R., Brown, C. S., Niens, U., & Noor, N. M. (2012). Interventions to reduce prejudice and enhance inclusion and respect for ethnic differences in early childhood: A systematic review. *Developmental Review*, 32(4), 307–336. <http://dx.doi.org/10.1016/j.dr.2012.05.001>

Ada, A. F., & Zubizarreta, R. (2001). Parent narratives: The cultural bridge between Latino parents and their children. In M. L. Reyes & J. J. Halcon (Eds.), *The best for our children: Critical perspectives on literacy for Latino students* (pp. 229–244). New York, NY: Teachers College Press.

Barrett, M., & Davis, S. C. (2008). Applying social identity and self-categorization theories to children's racial, ethnic, national and state identifications and attitudes. *Handbook of Race, Racism and the Developing Child*, 72–110.

Blair, C. (2009 March). The development of self-regulation in early childhood. Presentation at the International Preschool Education Conference, Istanbul, Turkey. Retrieved from <http://panel.unicef.org/tr/vera/app/var/files/t/h/the-development-of-self-regulation-in-early-childhood-a-primary-influence-on-school-readiness-and-academic-achievement.pdf>

California Department of Education. (2008). California preschool learning foundation (1), 103 – 106. Retrieved from <http://www.cde.ca.gov/sp/cd/re/documents/preschoollf.pdf>

Caulfield, R.A. (2001). *Infants and Toddlers*. Upper Saddle River: Prentice-Hall Inc.

Center for Applied Special Technology. (CAST). (n.d.) Web page. Retrieved from <http://www.cast.org/udl/>

Center for Childhood Creativity. (2017). The roots of STEM success: *Changing early learning experiences to build lifelong thinking skills*. Retrieved from <https://centerforchildhoodcreativity.org/roots-stem-success/>

Center on the Developing Child at Harvard University. (2011). Building the brain's "air traffic control" system: How early experiences shape the development of executive function (Working paper no. 11). Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)

Center on the Developing Child at Harvard University. (2012). The science of neglect: The persistent absence of responsive care disrupts the developing brain (Working paper no. 12). Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)

Clements, D.H., & Sarama, J. (2009). *Learning and teaching early math: the learning trajectories approach*. New York: Routledge.

Collier, V. P. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly*, 21, 617–641.

Counsell, S., Escalada, L., Geiken, R., Sander, M., Uhlenberg, J., Van Meeteren, B., Yoshizawa, S., & Zan, B. (2016). *STEM learning with young children; inquiry teaching with Ramps and Pathways with Young Children*. New York NY: Teachers College Press.

Cummins, J. (1984). Bilingualism and special education: Issues in assessment and pedagogy. Clevedon, England: Multilingual Matters.

Epstein, A. S. (2007). The intentional teacher: Choosing the best strategies for young children's learning. Washington, DC: National Association for the Education of Young Children. Retrieved from <http://www.naeyc.org/store/files/store/TOC/165.pdf>

Duschl, R. A., Schweingruber, H. A., & Shouse, A. W. (Eds.). (2007). *Taking science to school: Learning and teaching science in grades K-8*. Washington, DC: National Academies Press.

Fogel, A. (2009). *Infancy: infant, family and society* (5th ed.) New York: Sloan Publishing, LLC.

Gelman, R., Brennen, K., Macdonald, G., & Román, M. (2009). *Preschool pathways to science (PrePS): Facilitating scientific ways of thinking, talking, doing, and understanding*. Baltimore, MD: Brookes.

Gonzalez-Mena, J., & Widmeyer Eyer, D. (2009). Infants, toddlers and caregivers: a curriculum of respectful, responsive care and education (8th ed). New York: McGraw-Hill.

Hachey, A.C. (2020). "Success for all: fostering early childhood STEM identity", *Journal of Research in Innovative Teaching & Learning*, 13(1), pp. 135-139. <https://www.emerald.com/insight/content/doi/10.1108/JRIT-01-2020-0001/full/html>

Hall, T. E., Meyer, A., & Rose, D. H. (2012). *Universal design for learning in the classroom: Practical applications*. New York, NY: Guilford Press.

Head Start. (2007). Head Start program performance standards and other regulations. Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/standards/Head%20Start%20Requirements>

Human Services, Community Services. (2010). Interagency collaboration: Making it work—Lessons from the literature. Retrieved from [http://www.community.nsw.gov.au/docswr/\\_assets/main/documents/researchnotes\\_interagency\\_collaboration.pdf](http://www.community.nsw.gov.au/docswr/_assets/main/documents/researchnotes_interagency_collaboration.pdf)

Jones, M., & Mulvenon, S. (2003). *Leaving no child behind: How data driven decision-making can help schools meet the challenge*. Phoenix, AZ: All Star Publishing.

Kagan, S. L., & Scott-Little, C. (2004). Early learning standards: Changing the parlance and practice of early childhood education? *Phi Delta Kappan*, 85(5), 388–396.

Kasper, G. (1997). Can pragmatic competence be taught? *NetWork #6*. Honolulu: University of Hawai'i, Second Language Teaching & Curriculum Center. Retrieved from <http://www.nflrc.hawaii.edu/NetWorks/NW06/>

Kendall, J. S. (2003). Setting standards in early childhood education. *Educational Leadership*, 60(7), 64–68.

Kupcha-Szrom, J. (2011). A window to the world: Early language and literacy development. Zero to Three. Retrieved from <http://www.zerotothree.org/public-policy/policy-toolkit/early-literacywebmarch1-6.pdf>

Lippard, C. N., Lamm, M. H., Tank, K. M., & Choi, J. Y. (2019). Pre-engineering thinking and the engineering habits of mind in preschool classrooms. *Early Childhood Education Journal*, 47, 187–198.



# CITATIONS CONTINUED

Maine Department of Education. (2005). State of Maine early childhood learning guidelines. Retrieved from <http://www.maine.gov/dhhs/ocfs/ec/occhs/learning.doc>

McClure, E., Guernsey, L., Clements, D., Bales, S., Nichols, J., Kendall-Taylor, N., & Levine, M. (2017). *STEM starts early: Grounding science, technology, engineering, and math education in early childhood*. Retrieved from [http://www.joanganzcooneycenter.org/wp-content/uploads/2017/01/jgcc\\_stemstartsearly\\_final.pdf](http://www.joanganzcooneycenter.org/wp-content/uploads/2017/01/jgcc_stemstartsearly_final.pdf)

NGSS Lead States. (2013). *Next generation science standards: For states, by states*. Washington, DC: National Academies Press.

Nash, K., Howard, J., Miller, E., Boutte, G., Johnson, G., & Reid, L. (2017). Critical racial literacy in homes, schools, and communities: *Propositions for early childhood contexts. Contemporary Issues in Early Childhood*, 1-18.

National Association for the Education of Young Children. (2009) Where we stand on early learning standards. Retrieved from: <http://www.naeyc.org/files/naeyc/file/positions/earlyLearningStandards.pdf>

National Center on Universal Design for Learning. (2010). UDL guidelines. Retrieved from <http://www.udcenter.org/aboutudl/udlguidelines>

National Early Childhood Technical Assistance Center (NECTAC). (2011 July). The importance of early intervention for infants and toddlers with disabilities and their families. Retrieved from <http://www.nectac.org/-pdfs/pubs/importanceofearlyintervention.pdf>

National Early Literacy Panel. (2008). Developing early literacy: Report of the National Early Literacy Panel. Jessup, MD: National Institute for Literacy. Retrieved from <http://lincs.ed.gov/publications/pdf/NELPReport09.pdf>

National Mathematics Advisory Panel. (2008). Foundations for success: The final report of the National Mathematics Advisory Panel. Jessup, MD: U.S. Department of Education. Retrieved from <http://www2.ed.gov/about/bdscomm/list/mathpanel/report/final-report.pdf>

National Research Council. (2012). *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*. Washington, DC: National Academies Press. <https://doi.org/10.17226/13165>.

National Science Teaching Association. (2014). *NSTA position statement: Early childhood science education*. Retrieved from <http://www.nsta.org/about/positions/earlychildhood.aspx>

National Scientific Council on the Developing Child. (2004). Young children develop in an environment of relationships (Working paper no. 1). Retrieved from <http://www.developingchild.net>

Nayfeld, I., Fuccillo, J., & Greenfield, D. B. (2013). Executive functions in early learning: Extending the relationship between executive functions and school readiness to science. *Learning and Individual Differences*, 26, 81-88.

Paradis, J., Genesee, F., & Crago, M. B. (2011). Dual language development and disorders: A handbook on bilingualism and second language learning (2nd ed.). Baltimore, MD: Paul H Brooks Publishing.

Park, C. C. (2011). Young children making sense of racial and ethnic differences: A sociocultural approach. *American Educational Research Journal*, 48(2), 387-420. <http://dx.doi.org/10.3102/0002831210382889>

Rhode Island Department of Elementary and Secondary Education. (2003). Rhode Island Early Learning Standards. Retrieved from <http://www.ride.ri.gov/els/index.asp>

Rhode Island Department of Elementary and Secondary Education. (2012). Comprehensive literacy plan. Retrieved from [http://www.ride.ri.gov/instruction/DOCS/RICLP/RICLP\\_Spring\\_2012.pdf](http://www.ride.ri.gov/instruction/DOCS/RICLP/RICLP_Spring_2012.pdf)

Van Ausdale, D., & Feagin, J. R. (2001). *The first R: How children learn race and racism*. Rowman & Littlefield Publishers.

Worth, K., (2010). Science in early childhood classrooms: Content and process. In *Early Childhood Research and Practice, Collected papers from the STEM in Early Education and Development Conference*. Retrieved from <http://ecrp.illinois.edu/beyond/seed/worth.html>

Yin, L. (2015). A journey of journals: Promoting child-centered second language acquisition in preschool. *Voices of Practitioners*, 10(2), 45-58.

Zero to Three. (2008). Early Learning Guidelines for Infants and Toddlers: Recommendations for States. Retrieved from: [http://main.zerotothree.org/site/DocServer/Early\\_Learning\\_Guidelines\\_for\\_Infants\\_and\\_Toddlers.pdf?docID=4961](http://main.zerotothree.org/site/DocServer/Early_Learning_Guidelines_for_Infants_and_Toddlers.pdf?docID=4961)

A special thank you is due to the following RIDE content specialists whose feedback was critical to informing the revisions made to the RIELDS:

- Colleen O'Brien, Hailey Cimini and Patricia Pora (Literacy)
- Bianca Pezzillo (Mathematics)
- Erin Escher and Carolyn Higgins (Science, STEM)
- Geralyn Ducady (Social Studies and Humanities)
- Emily Klein (Special Education & Multilingual Learners)
- Agnieszka Bourret and Veronica Salas (Multilingual Learners)





# RI EARLY LEARNING & DEVELOPMENT STANDARDS



A Publication of the Rhode Island Department of Education.



Visit [www.rields.com](http://www.rields.com) for more information or scan this code with your device for our mobile-friendly version.



The contents of this brochure were developed under a Race to the Top – Early Learning Challenge grant from the U.S. Departments of Education and Health and Human Services. However, those contents do not necessarily represent the policy of the U.S. Departments of Education and Health and Human Services, and you should not assume endorsement by the Federal Government.