

MARYLAND

# EARLY LEARNING STANDARDS

0-48 MONTHS

JANUARY 2024



**Maryland**  
STATE DEPARTMENT OF EDUCATION





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# LETTER FROM THE BOARD PRESIDENT & INTERIM STATE SUPERINTENDENT

Dear Marylanders:

The Maryland State Board of Education and Maryland State Department of Education are dedicated to raising the quality of education for every student in Maryland. In order to ensure student success at scale, we must address the present and persistent historical challenges across our state's educational system.

It is with great enthusiasm and pride that we introduce Maryland's revised Early Learning Standards. At the heart of our mission lies a dedication to elevating the quality of education for every child in Maryland. We recognize the profound significance of early childhood as a critical period for brain development, laying the groundwork for lifelong success. Thus, we are committed to ensuring that every child's educational journey begins at birth, setting them on a path towards success in both school and life.

Crafted in alignment with The Blueprint for Maryland's Future legislation, our revised standards represent a milestone in our ongoing efforts to provide exemplary early learning experiences. Our approach was grounded in aligning the legislative mandates and informed by a comprehensive benchmarking analysis. We leveraged and engaged independent experts in the field to conduct an external quality review of the standards. As a result, we created best-in-class standards tailored specifically for Maryland that meet the diverse needs of all children and prioritize equity.

Organized into five domains, our standards outline essential areas of learning and development, offering a clear and comprehensive framework for early childhood programs and educators. Aligned with Maryland's College & Career Ready Standards, they ensure that early learning experiences seamlessly connect with later school outcomes.



**“ Maryland's Early Learning Standards serve as a cornerstone for creating developmentally appropriate environments and learning experiences, fostering growth across various domains.**

Importantly, our standards are inclusive, reflecting the latest research on early learners and prioritizing the needs of children with disabilities, multilingual language learners, and those who have experienced trauma. This commitment to inclusivity ensures that our standards address the unique challenges and requirements of every child.

Maryland's Early Learning Standards serve as a cornerstone for creating developmentally appropriate environments and learning experiences, fostering growth across various domains. Educators can rely on these standards to inform curriculum decisions, promote best practices, and facilitate effective communication with families.

We are confident that Maryland's revised Early Learning Standards will empower caregivers to provide intentional education, preparing all children for kindergarten and beyond. So, whether you are in a school, child care program, home, or community where children are, we look forward to partnering with you to give Maryland's children the best possible start in life.

We cannot do this alone. Together, we will create classrooms that instill a love for learning, foster critical thinking, and nurture the unique talents of each student. We look forward to your continued support as we seize this opportunity to transform public education so that all Maryland students are ready to be successful in college, career, and life.



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**CLARENCE C. CRAWFORD**

President, Maryland State Board of Education



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**DR. CAREY WRIGHT**

Interim State Superintendent of Schools

# INTRODUCTION TO THE EARLY LEARNING STANDARDS

The Maryland Early Learning Standards describe the skills, concepts, and behaviors that children in a high-quality early learning and care environment typically learn before their fourth birthday. Grounded in the most recent research in early childhood development and learning, the standards describe how children progress in key domains of learning: Social and Emotional Development, Approaches to Learning, Language and Literacy, Early Cognition and STEAM, and Physical Well-Being and Motor Development.

The Early Learning Standards are written to provide guidance to anyone in the state of Maryland who cares for or works with children from birth to 48 months of age. Maryland's children are served in many settings, including licensed child care centers; licensed family childcare homes; and informal care by friends, family, relatives, or nannies. The adults who care for children in these settings may be referred to as caregivers, teachers, educators, or care providers. The Early Learning standards use the term adult to refer to anyone who might serve as a care provider for young children. Children are cared for in many spaces, including homes, classrooms, playgrounds,

backyards, parks, or other community spaces. In the Early Learning Standards, a variety of spaces are included, and the examples illustrate experiences that could take place in different early care settings.

Each of the standards describes expectations for the learning and development of Infants (0 to 8 months), Older Infants (8 to 18 months), Toddlers (18 to 36 months), and children in Pre-K3 (36 to 48 months). Important milestones in children's learning and development in these four age periods include the following:

## AGE PERIODS

### INFANTS

*0 to 8 months*

At this age, children learn to use their senses to explore the environment. Their close physical proximity to caregivers who are responsive to their interests and needs allows children to form secure relationships. Children at this age begin to make sounds to communicate.

### YOUNGER TODDLERS

*8 to 18 months*

At this age, children develop the ability to sit, crawl, and stand on their own. These new motor capacities allow children to take the initiative to explore the environment in new ways. Children at this age learn to reason about situations and engage in actions to achieve goals and solve problems. They learn to express emotions more clearly and communicate using a few words and gestures.

### OLDER TODDLERS

*18 to 36 months*

During the toddler years, children develop the motor control to walk, climb, and run. These developing skills increase a toddler's capacity to explore their environment autonomously. Toddlers also rapidly gain more language, which supports communication and relationships with caregivers and peers. They grow in their capacity to engage in challenges and persist in solving problems. Children at this age can anticipate routines and remember information for longer periods of time with more detail.

### Pre-K3

*36 to 48 months*

As children enter preschool, their friendships with peers become more complex. They participate in increasingly elaborate conversations with peers and caregivers. Children's vocabulary and grammatical skills continue to grow. They are also increasingly able to manage their emotions on their own and develop self-control. Children's cognitive and executive functioning skills are also growing rapidly as they learn to count, sort, measure, and persist in solving problems. Children at this age enjoy engaging in pretend play and are able to think about and express more complex ideas and information.





# HOW TO USE THE EARLY LEARNING STANDARDS

The Maryland Early Learning Standards guide educators in how to support children to develop important skills, concepts, and behaviors. The standards can promote the design and implementation of developmentally appropriate environments and learning experiences to support children's development across domains. These standards can also guide a program's choice of curriculum and other learning materials. In addition, as the standards provide an easy way to share information about young children's development, they can be used to communicate and build partnerships with families.

Standards are different from an assessment or a curriculum. **Standards** describe children's learning and development at specific ages. **Assessments**, such as the Maryland

Early Learning Assessment, measure an individual child's progress toward developmental milestones or learning goals. Assessments allow educators to monitor a child's progress over time. **Curricula** provide plans and specific day-to-day learning experiences that educators can implement to promote children's learning and progress toward the expectations described in the **Standards**. For example, an educator may use lesson objectives from a curriculum to target skills described in a specific standard. Together, these three types of resources allow educators to understand the expectations for children's learning and development across domains, how to intentionally support their development through daily experiences, and how to assess children's development and progress over time.

## STANDARDS

Expectations for children's learning and development

## ASSESSMENT

Measurement of children's current learning, development and progress over time

## CURRICULUM

Plan for supporting children's learning and development through activities, care, interactions and the environment





# GUIDING PRINCIPLES

The following five guiding principles were used in creating the Maryland Early Learning Standards. These guiding principles also serve as a resource for educators when designing environments and learning experiences to support children's learning and development.

## ■ CHILDREN DIFFER INDIVIDUALLY FROM ONE ANOTHER AND HAVE UNIQUE EXPERIENCES AND DIVERSE STRENGTHS.

Individual children develop and learn at different rates and in their own way. Their learning is influenced by many factors, such as the environment, culture, heritage, linguistic experiences, temperament, disabilities, and any experiences of trauma. Effective teaching practices build on individual children's unique experiences and support children's diverse strengths, interests, and needs so that all children can be successful learners. For example, a child learning more than one language may know how to count in their home language. Educators can acknowledge and build on the skills this child has already developed. Additionally, they can support the child in learning to count both in their home language and in English.

## ■ CHILDREN BENEFIT FROM SUPPORTIVE AND RESPONSIVE RELATIONSHIPS.

Supportive, stable, and responsive relationships with adults and peers are fundamental for children's learning and development. Through emotionally secure relationships, children learn how to communicate, express emotions, and develop the social skills to thrive. Relationships also provide children with a secure base, which allows them to feel confident to explore the environment.

## ■ CHILDREN THRIVE IN ENVIRONMENTS INTENTIONALLY DESIGNED TO SUPPORT THEIR LEARNING AND DEVELOPMENT.

Children learn best in high-quality environments that promote meaningful interactions with educators and peers. High-quality environments offer diverse learning materials that are tailored to a child's interests, strengths, and needs. Providing rich and developmentally appropriate learning experiences requires intentional planning by educators.

## ■ CHILDREN'S LEARNING IS INTEGRATED.

The Maryland Early Learning Standards organize the skills, concepts, and behaviors that children develop into five separate domains. However, children's learning occurs across domains. Children's development of skills and concepts in one domain will often support and be supported by the skills and concepts developed in other domains. Thus, skills represented in one domain may be highly related to skills in another domain.

## ■ CHILDREN LEARN THROUGH PLAY, EXPLORATION, AND DISCOVERY.

Children learn best through active, hands-on learning experiences with support and guidance from a trusting educator. By participating in experiences that are based on their interests and invite their initiative and curiosity, children experience situations and interactions that foster meaningful, authentic learning.





# PLAYFUL LEARNING

Young children's play offers rich opportunities for learning and development.<sup>1</sup> Educators can support children's development through play in a variety of contexts. It can be useful to think of learning through play on a spectrum, with free play on one end of the spectrum and guided play on the other end.

**Free play** is initiated by children, directed by children, and does not have adult-defined explicit learning goals. In an early childhood setting, this play includes open play periods, indoors or outdoors, where children can choose how to play and where to play. For example, during free play time in a 2-year-old classroom, one child might play with a toy xylophone on the floor while another child plays with baby dolls in a pretend play corner. Outdoors, some children may roll or crawl through the grass, others may collect sticks and leaves to put in a pile, and still others may play on a slide or climbing structure. As children grow older, they engage in more socialization and negotiation through play: two children might, for example, think of a simple pretend play scenario to act out together, or they might come up with a simple game and make up rules as they go along.

**Guided play** is initiated by an adult and has a specific learning goal, but children still drive the play. This includes activities where an educator sets up materials with a specific learning goal, but children are free to engage with the activity in their own way. For example, an educator might set up a modeling clay station with measuring cups, rulers, and balance scales as children are learning about

measurement, and allow the children to freely explore these materials through play. Guided play can be used to support specific learning objectives with additional adult support. For example, an educator might engage a small group of children in acting out a familiar storybook, like *We're Going on a Bear Hunt* with children finding props from the classroom and acting out the actions described in the story.

In early childhood settings, playful learning activities, from free play to guided play, are important to support development across domains. The Early Learning Standards provide examples of playful learning across the standards and the age groups. Some standards and indicators specifically describe children's development of play, while others describe general skills, concepts, or behaviors. However, the standards in all domains can be explored and supported through playful learning experiences. The in-practice examples under each indicator can be used as a starting point for planning playful learning experiences around a learning goal for children of a specific age.

## LEARNING THROUGH THE ARTS

Learning through the arts is one way that children can experience playful learning. Participating in the creative arts—visual arts, music, and dramatic art—supports children's learning and development in all domains. For example, visual art activities such as grasping and using crayons, stringing beads, or working with clay help children develop fine motor skills, while dancing to music supports children's gross motor skills. Singing songs provides a strong foundation for children's early literacy skills, and dramatic play supports children in learning to manage their emotions. Engagement with the arts should be

integrated throughout children's daily learning activities in all domains of learning. Early math activities can include songs related to counting, such as "Five Little Ducks" or "Ten in the Bed." When teaching about the natural world, educators may encourage children to collect items in nature, such as sticks, leaves, and acorns, and make a collage from the materials they have found. In early childhood, learning through art is best achieved when educators focus on the process of making art—such as experiencing the vibrations made by a drum, or observing the effects of mixing colors together—rather than on the final product.



# INCLUSIVE STANDARDS FOR ALL CHILDREN



The context in which children develop is diverse and influenced by many factors. In the development of these standards, special attention was given to writing standards that are inclusive of all children in Maryland. This includes children from diverse cultural and socioeconomic backgrounds, early multilingual learners, children with diverse characteristics and abilities, and children with disabilities. To this end, the standards, indicators, and examples were worded to describe the many ways children might express their knowledge and skills. Additionally, stakeholders in Maryland provided feedback to ensure that the standards and examples represented the diversity of children attending early care and education settings in Maryland.

## EARLY MULTILINGUAL LEARNERS

Early Multilingual Learners may also be called Dual Language Learners or English Learners. All of these terms describe a child who is learning more than one language at a time. The language or languages a child is learning at home are referred to as the home language(s).

Supporting children's home language development is essential for their overall development and learning in all domains. Furthermore, home language development provides a basis for development in other languages, such as English, because children can apply their knowledge of one language to another. Supporting children's home language development also strengthens their connections with their families and communities and helps them develop positive identities. Having a strong foundation in any language is a critical component of their overall development.

Children learning a new language (such as English) may begin by observing others around them but may not yet speak or sign in their new language. At other times, Early Multilingual Learners may respond in their home languages to a statement or question that has been said in English. Early Multilingual Learners will also demonstrate a slightly different course of language development than monolingual children. For example, while they may know fewer words in each of their languages, the total number of words they know is usually comparable to the number of words children who speak one language know at the same age. Early Multilingual Learners have unique strengths in language development. Not only are they learning multiple languages, but they are also learning when and how to use each of these languages, which requires complex cognitive understanding. They draw on their knowledge from both (or any) of their languages to communicate, which is a process known as translanguageing. One common aspect of translanguageing is code switching, which occurs when an individual uses words from two or more languages within a single phrase, sentence, or conversation. For example, a child who has learned English at school and speaks Spanish at home might say, "My mommy gave me *arroz con pollo*" [my mommy gave me rice with chicken], using Spanish vocabulary for foods they usually talk about in their home language. Even if a child's home language is different from the language spoken in their early childhood program, caregivers at the program can help support a child's home language development by learning a few words, finding books in the child's home language, or bringing family or community members in to share songs or stories with the children.

## CHILDREN WITH DISABILITIES

Children with disabilities include all children who require special education or related services due to developmental delays or neurodevelopmental disorders, medical or physical conditions that require specialized support, emotional or behavioral challenges, or intellectual disabilities. Some children with disabilities may be identified with a disability outlined in Section 300.8 of the Individuals with Disabilities Education Act (IDEA), including children who are medically fragile, and have an Individualized Family Service Plan (IFSP) or Individualized Education Program (IEP). Other children, especially at-risk infants and toddlers, may not be identified with a disability or have an IFSP/IEP but engage in learning experiences, communicate, or express knowledge differently than their peers. Children with disabilities benefit from specific accommodations or adaptations to fully participate in all learning. In supporting diverse learners, educators should keep in mind that each child learns at a different pace and in a different way.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing





information, and expressing knowledge.<sup>2</sup> Multiple means of engaging involves implementing strategies to motivate learners and sustain engagement. Educators can build upon children's strengths and interests by providing choices in activities and connecting activities to known areas of strength and interest. Multiple means of representing information requires presenting content and materials in various ways. For example, an educator can embed visual picture schedules into daily routines or present math concepts, like counting, using hands on models. Multiple means of expressing knowledge involves providing children a variety of ways to demonstrate their understanding. For example, some children may prefer to express knowledge through actions instead of verbal communication, choosing to act out a story read during circle time rather than recounting the story verbally. Other children may prefer to tell an adult about their observations during a science exploration activity rather than drawing their observations in a nature journal.<sup>3</sup> Universal design does not replace individualized supports and instruction for children with disabilities, but UDL is a strengths-based approach to supporting diverse learners with varying characteristics and abilities. Educators can use their knowledge of individual interests, strengths, and needs to support all children's learning across domains. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high quality, individualized education for children with disabilities.

## CHILDREN EXPERIENCING HOMELESSNESS

Experiencing homelessness can impact children's development across domains. Children experiencing homelessness are more likely to experience health complications, developmental delays, and emotional and behavioral challenges in comparison to children who have stable housing. Early educators play a unique role as part of a comprehensive system that supports the physical and psychosocial well-being of children and their families experiencing housing insecurity. Early support and care are crucial as we know that children who are experiencing homelessness have better outcomes when they are attending early education programs regularly, have positive interactions with adult family members, and can regulate their behaviors and emotions. Thus, educators can support children experiencing homelessness by forming a strong relationship with them and their families, connecting families to other specialists and resources, and using a trauma informed and healing centered approach\* to support children's social and emotional development and well-being.

**\*Trauma-informed practice** is a way of being in relationships with children and families, not a specific strategy or method. Trauma-informed practice can be used by anyone who works with young children to help them understand trauma.

When adults use trauma-informed practice, they actively

- recognize the universal need for children's physical and emotional safety;
- build confidence and positive self-regulation skills;
- acknowledge and respect families' cultures;
- promote cultural continuity between home and child care and early learning settings; and
- engage children and families in respectful, calming, and encouraging ways.

# HOW ARE THE MARYLAND EARLY LEARNING STANDARDS ORGANIZED?



## EARLY COGNITION AND STEAM

**Strand** C.GCD: General Cognitive Development

**Standard C.GCD.4:** Develops an understanding that certain objects, actions, or symbols can represent other objects or actions.

### **Infants** *around 8 months*

Becomes familiar with objects and actions through exploration.

#### **Examples**

Drops a ball onto the ground to watch it bounce.

While sitting and playing on the rug, brushes their hands back and forth on the rug, feeling its texture..

#### **In-Practice Strategies**

Explore objects with infants in various ways (for example, squeeze a ball, bounce it on the floor, or roll it down a ramp).

### **Younger Toddlers** *around 18 months*

Uses objects to represent actions with other objects.

#### **Examples**

Holds a block and pretends to brush their own hair.

Moves their toy car back and forth while saying "vroom vroom."

Grabs a chapter book and pretends to read the text, occasionally turning over the page. When the adult asks, "Are you reading?" the child nods "yes."

#### **In-Practice Strategies**

Model symbolic play by using a variety of objects to represent other objects common in children's routines and environment (for example, pick up a banana during snack time and pretend to use it as a phone, or use a pencil to pretend to brush your teeth).

## DOMAIN

The Maryland Early Learning Standards are organized into five domains describing areas of learning and development that are essential for school readiness:



**Social and Emotional Development**



**Approaches to Learning**



**Language and Literacy**



**Early Cognition and STEAM**



**Physical Well-Being and Motor Development**

## STRAND

Each domain is divided into multiple strands. **Strands are important topics** within a domain.

## STANDARD

Each strand includes one or multiple standards. **Standards describe the skills, concepts, and behaviors** that children are expected to learn and develop across the 0-to-48-month period.

## AGE PERIOD

The Maryland Early Learning Standards cover the ages from birth to 48 months in four age periods: Infants, Younger Toddlers, Older Toddlers, Pre-K3. Each age period includes children across a range of ages (Infants: 0–8 months, Younger Toddlers: 8–18 months, Older Toddlers: 18–36 months, Pre-K3: 36–48 months). However, the indicators, examples, and in-practice strategies describe the skills, concepts, and behaviors that children typically demonstrate at the end of each age period (around 8 months, 18 months, 36 months; and 48 months).

The age periods included in the Early Learning Standards are based on major developmental milestones in children's learning and development. These age periods do not always align with the ages that are used for licensing requirements or that are commonly used when organizing age-based early childhood classrooms. When using the Early Learning Standards, it may be necessary to refer to multiple age-level indicators in the Early Learning Standards to understand the learning goals for children in one classroom or to understand one child's development across multiple domains.

## INDICATOR

Indicators describe the standard for each of the four age periods. They describe the specific skills, concepts, and behaviors that children would be expected to know and be able to demonstrate at around 8 months, 18 months, 36 months, and 48 months. Each indicator also includes examples and in-practice examples.

## EXAMPLES

Each indicator has two or three examples, which show a range of ways that children may demonstrate the skills, concepts, and behaviors described in that indicator. The examples illustrate how the indicator might be expressed by children, but there are many more ways children may demonstrate the development of skills, concepts, and behaviors described by the indicators. The examples highlight how a child is likely to demonstrate the indicator near the end of the age range, but some children may develop these skills earlier or later. Additionally, examples highlight how children from diverse cultural and linguistic backgrounds and multilingual language learners communicating in their home language may express their developing skills, concepts, and behaviors, and how children with disabilities may express their competence on the skills, concepts, and behaviors described in the indicators.

## IN-PRACTICE STRATEGIES

The in-practice strategies provide ideas for how early childhood educators might support children's development of the skills, concepts, and behaviors described in the indicator.

# ALIGNMENT

## CONNECTING TO THE MARYLAND EARLY LEARNING STANDARDS (0–48 MONTHS) WITH STANDARDS AND FRAMEWORKS FOR CHILDREN IN Pre-K4

The five domains in the Maryland Early Learning Standards provide the foundation for the development of skills that are more domain-specific at later ages. As children develop, their skills and learning become more differentiated. Thus, while the descriptions of children's learning and development from birth to 48 months are organized into five domains, Maryland's standards and frameworks for children in Pre-K4 describe a broader range of specific skills and knowledge and include additional domains, such as English Language Arts, Mathematics, Fine Arts, Social Studies, Science, Physical Education, and Health.

For standards describing learning and development for children in Pre-K4 and above, please see the following documents:

- [CASEL Framework: Collaborative for Academic, Social, and Emotional Learning](#)
- [Maryland College and Career Ready Standards for English Language Arts](#)
- [Maryland College and Career Ready Mathematics Content Standards](#)
- [Maryland State Fine Arts Standards](#)
- [Maryland State Standards and Frameworks in Social Studies](#)
- [Next Generation Science Standards](#)
- [Maryland Physical Education Framework](#)
- [Maryland Comprehensive Health Education Framework](#)









# SOCIAL AND EMOTIONAL DEVELOPMENT

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Social and Emotional Development describes children's ability to form relationships with others, manage their emotions, and understand others' emotions. Research has shown that healthy social and emotional development contributes to children's overall well-being, school readiness, and academic achievement.<sup>4</sup> Adults can support children's social and emotional development by providing consistent, responsive interactions that acknowledge and support children's experiences.

At birth, children's social and emotional behaviors include smiling, touching, and orienting themselves toward parents, family members, and other caregivers. As they interact with others, children develop increasingly reciprocal social and emotional abilities.<sup>5</sup> They develop the ability to ask questions and communicate with others about their own ideas and observations. They also develop the ability to form friendships and understand emotions in themselves and others.<sup>6</sup> Interacting with others shapes children's sense of identity and belonging to their family and community.

Children demonstrate social and emotional skills in diverse ways. Their different cultural and linguistic backgrounds, disability status, experiences with stress or trauma in their environment, and individual differences in temperament and personality all contribute to their social and emotional development. For example, while some cultures encourage children to express emotions outwardly (for example, crying), other cultures promote more internal emotional expression and regulation. Another example is that children who experience trauma may be startled when hearing loud noises, while others may remain unbothered or even enjoy making loud noises. Therefore, it is important to be thoughtful and sensitive when considering how standards relate to individual children's social and emotional development.



## SOCIAL AND EMOTIONAL DEVELOPMENT STRANDS

The Social and Emotional Development domain includes the following strands:

- Relationships With Adults
- Relationships With Children
- Emotional Functioning
- Emotional Self-Regulation
- Sense of Identity and Belonging

### RELATIONSHIPS WITH ADULTS

Developing close relationships with parents, other adult family members, and caregivers supports children's emotional security and strengthens their overall capacity to learn.<sup>7</sup> With support from their caregivers and adult family members, children develop self-awareness and grow an understanding of the world around them. The strand Relationships with Adults describes how children engage with caregivers and adult family members and develop close relationships with them.

### RELATIONSHIPS WITH CHILDREN

Developing close relationships with peers helps children establish social connections while supporting their capacity to play and work with others.<sup>8</sup> This strand describes how children engage in play as part of interacting with peers. It also describes how they develop friendships over time.

### EMOTIONAL FUNCTIONING

With support, children learn to recognize and label emotions, which is an important first step in their emotional functioning.<sup>9</sup> As children develop these skills, they are better able to strengthen their relationships with adults and peers. This strand describes how children understand their own emotions and the emotions of others. It also describes how children respond to others' emotions and how they respond with care and concern for others' distress.

### EMOTIONAL SELF-REGULATION

Emotional regulation refers to a child's ability to understand and manage their feelings or reactions to various situations, which is a significant precursor to developing positive relationships.<sup>10</sup> In the first years of life, children use caregivers to help manage their emotions. As they grow older, they become more capable of regulating emotions on their own. This strand describes how children manage and express their emotions.

### SENSE OF IDENTITY AND BELONGING

Building a positive sense of identity is central to children's social and emotional development and overall well-being, including their development of self-confidence. This strand describes how children learn to recognize similarities and differences between themselves and others. It also describes how children express comfort and participate in shared rituals and traditions with their family and others.



## SOCIAL AND EMOTIONAL DEVELOPMENT

# INCLUSIVE STANDARDS FOR ALL CHILDREN

## CHILDREN WITH DISABILITIES

In supporting children with disabilities in the Social and Emotional Development domain, educators need to keep in mind that each child learns at a different pace and in a different way. For example, children with autism may engage in and interpret social interaction with adults and peers differently, relying on visual and verbal cues more than other children do. Children who have sensory sensitivity may show heightened arousal and have difficulty regulating their emotions when exposed to situations they find overwhelming or overstimulating or to which they are otherwise averse. Some children may benefit from specific accommodations or adaptations to fully participate in all learning. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high-quality, individualized education for children with disabilities.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing information, and expressing knowledge.<sup>11</sup> Universal design does not replace individualized support and instruction for children with disabilities, but UDL is a strengths-based approach to supporting the characteristics and abilities of diverse learners. Educators can facilitate a variety of ways children can communicate emotions and interact with peers and adults, such as using picture symbols, gestures, or drawings. Providing children with alternative and diverse ways to express wants, needs, interests, and emotions can help reduce barriers to social interactions and promote a sense of belonging, thereby strengthening healthy social and emotional development.

## CHILDREN EXPERIENCING HOMELESSNESS

Children experiencing homelessness are more likely to face emotional and behavioral challenges in comparison to children who have stable housing. Similarly, children experiencing poverty may face some of the same challenges. Early educators play a unique role as part of a comprehensive system of homelessness prevention and intervention supports that prioritize the physical and psychosocial well-being of children and their families experiencing housing insecurity. This early support and care are crucial as we know that children who are experiencing homelessness have better outcomes when they have positive adult-child interactions and can regulate their behaviors and emotions. Educators can support children experiencing homelessness by forming a strong relationship with them and their families and connecting parents to other specialists and resources. Educators may also use a trauma-informed and healing-centered approach\* to support children's social and emotional development and well-being. Educators might set individualized goals for children that prioritize helping the child feel safe, secure, and heard while also working closely with families to understand their child.

\* **Trauma-informed practice** is a way of being in relationship with children and families, not a specific strategy or method. Trauma-informed practice can be used by anyone who works with young children to help them understand trauma.

When adults use trauma-informed practice, they actively

- recognize the universal need for children's physical and emotional safety;
- build confidence and positive self-regulation skills;
- acknowledge and respect families' cultures;
- promote cultural continuity between home and child care and early learning settings; and
- engage children and families in respectful, calming, and encouraging ways.





## IN-PRACTICE STRATEGIES

Responsive and supportive interactions with adults are essential for children's learning and development. Nurturing, responsive, and consistent care helps children feel safe and valued and provides a sense of security that allows children to confidently engage in learning experiences. Each standard includes one in-practice strategy per age group describing how educators can support children to develop the knowledge and skills described in the standard. Below are some examples of in-practice strategies educators can use to support children's development and learning across the standards in social and emotional development:

- Notice and respond to children's cues and interests to form close relationships with children in your care. For younger children, this may include offering comfort in response to an infant's cries or smiling at a toddler's discovery. For older children, consider engaging in conversations and asking questions about activities of interest.
- Provide ample opportunities for children to interact and develop relationships with their peers. For example, place play materials near infants, provide children with time to play with peers throughout the day, and plan small group, collaborative activities.
- Model and label emotional expressions to allow children to learn about their own emotions and the emotions of others (for example, "I feel frustrated because I can't find my keys anywhere!").
- Offer multiple means of expressing emotions and engaging in learning experiences, such as communicating emotions through drawing or using sign language.
- Validate children's strong emotions (for example, "I can see how hard that was for you"), and offer support and choices on how to manage them, such as retreating to a quiet corner or practicing breathing exercises.
- Invite children and families to share stories, traditions, and objects from home to create a sense of belonging with family and their communities.



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.RA: Relationships With Adults

**Standard SE.RA.1:** Initiates and engages in interactions with familiar adults.

### Infants *around 8 months*

Shows recognition of familiar adults by smiling, reaching for, or turning their head toward a familiar voice. Initiates interactions and seeks proximity to familiar adults.

#### Examples

Vocalizes to get the attention of a familiar adult. The familiar adult provides comfort to the child by holding their hand.

Smiles at a familiar adult who is singing the child's favorite nursery rhyme, "*La linda manita*" in Spanish ["The Little Hand"].

#### In-Practice Strategies

Hold children, talk with them, smile, and respond to their initiations for interaction.

### Younger Toddlers *around 18 months*

Participates in shared experiences, such as routines or games, with a familiar adult. Explores their environment with a familiar adult present.

#### Examples

Moves away from a familiar adult to play in a different part of the room but occasionally looks at the adult and makes eye contact.

Approaches the same familiar adult to begin playing after nap time.

Sings repeated parts of the same song with a familiar adult during diapering.

#### In-Practice Strategies

Let children's interests spark shared experiences (for example, ask questions in English and/or the home language about what they are noticing while playing).

Standard SE.RA.1 continued

**Older Toddlers**  
*around 36 months*

Interacts with familiar adults in more complex exchanges, such as communicating about ideas.

**Examples**  
  
Engages in pretend play about a mealtime with an adult. The child and familiar adult pretend to share food and discuss what the food tastes like.  
  
Builds a tower together with an adult, adding one block and waiting for the familiar adult to add another.

**In-Practice Strategies**  
  
Engage in conversations and ask questions in English and/or the home language about children’s thinking (for example, “What might happen if we put this block on top?”).

**Pre-K3**  
*around 48 months*

Engages in extended reciprocal interactions with adults that have a specific focus or goal, such as participating in cooperative activities or problem-solving.

**Examples**  
  
Uses an augmentative/alternative communication (AAC) device to communicate about what they did over the weekend. The familiar adult also shares about their weekend.  
  
Plays Candy Land with a familiar adult. They count the number of spaces together in the child’s home language.

**In-Practice Strategies**  
  
Model behaviors related to sharing and turn-taking (for example, “You go first, and then it’s my turn.”) in English and/or the home language. Initiate conversations with children about events or activities they recently experienced.



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.RA: Relationships With Adults

**Standard SE.RA.2:** Develops close relationships with familiar adults who provide consistent care.

### Infants *around 8 months*

Initiates interactions and seeks close proximity to caregiving adults.

#### Examples

Looks excitedly in the direction of a familiar adult at pick-up time.

Reaches for a familiar adult's hand when the lights are turned off for naptime.

Rubs their eyes and begins to cry to get the attention of a familiar adult.

#### In-Practice Strategies

Notice and respond to children's cues for feelings like hunger and fatigue (for example, noticing a child yawn and then deciding to put them down for a nap).

### Younger Toddlers *around 18 months*

Looks to and shows a preference for familiar caregiving adults for emotional support and encouragement.

#### Examples

Moves closer to a teacher when a new person enters the room.

Looks toward a familiar adult after being startled by a piñata breaking open loudly.

#### In-Practice Strategies

Anticipate children's needs for emotional support (for example, be in close proximity to a child doing something for the first time or offer to help during challenging moments).



## Standard SE.RA.2 continued

### Older Toddlers around 36 months

Connects with caregiving adults and engages in positive interactions. Seeks caregiving adults for comfort, support, and help.

#### Examples

Plays on the playground on their own but looks toward a familiar adult as they are about to go down the big slide.

Smiles and says, “thank you” in their home language to a familiar adult after having their hair braided.

A child experiencing homelessness moves closer to a familiar adult when getting ready for a walk in the neighborhood. The adult provides comfort by holding the child’s hand as they begin walking outside.

#### In-Practice Strategies

Approach children, as appropriate, by providing reassurance, offering encouragement, or acknowledging accomplishments in English and/or the home language (for example, “*¡Lo hiciste!*” [“You did it!”]).

### Pre-K3 around 48 months

Communicates about emotional connection and attachment to caregiving adults. Turns to caregiving adults for protection, comfort, and getting needs met.

#### Examples

Looks for a teacher after falling and scraping their knee.

Hides behind their mom’s *hijab* (a head covering worn by some Muslim women) after seeing a scary image in a storybook.

A hyperactive child and a teacher discuss several alternative seating options for the child to choose from during circle time.

#### In-Practice Strategies

Show empathy when responding to children’s emotional expressions in English and/or the home language (for example, “I see that you are scared right now. I get scared too, sometimes.”).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.RC: Relationships With Children

**Standard SE.RC.1:** Initiates and engages in interactions with other children.

### Infants *around 8 months*

Looks or shows interest in peers by exploring another child's face and body, smiling, or making sounds directed to the child.

#### Examples

Passes a toy to another child.

Grasps the hair of a peer.

Looks at another child who is wiggling their toes while having their diaper changed.

#### In-Practice Strategies

Place play materials in an area where two or three infants can safely explore the materials and each other.

### Younger Toddlers *around 18 months*

Engages in simple interactions with another child.

#### Examples

Picks flowers and approaches another child to show them the flowers.

Paints alongside another child and tries paintbrushes with different grips.

#### In-Practice Strategies

Be present to support positive child interactions and help problem-solve if any conflicts arise (for example, "Here's a toy for each of you so you both have something play with.").

Standard SE.RC.1 continued

**Older Toddlers**  
*around 36 months*

Approaches other children for social interaction. Initiates contact and responds to others.

**Examples**  
  
Joins another child in the pretend kitchen area to “cook.”  
  
Greets another child in their home language as they enter the room.

**In-Practice Strategies**  
  
Offer materials or activities for a pair or small group of children to engage with together.

**Pre-K3**  
*around 48 months*

Initiates and maintains extended interactions with other children, or engages in prosocial behaviors, with or without support from an adult.

**Examples**  
  
Helps other children to create a train track on the floor.  
  
A child who is nonspeaking motions to another child drawing with sidewalk chalk. They begin sharing chalk and drawing together.  
  
Holds a bubble wand for another child with low muscle tone to blow bubbles.

**In-Practice Strategies**  
  
Support children in joining other children’s play by suggesting opportunities to engage with other children in English and/or the home language (for example, “*Tal vez puedas darle la pelota a Mariah y ver si quiere jugar contigo.*” [“Maybe you can give Mariah the ball and see if she wants to play with you.”])).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.RC: Relationships With Children

**Standard SE.RC.2:** Develops relationships with peers through interactions over time.

### Infants *around 8 months*

Looks or shows interest in peers by exploring another child's face and body, smiling, or making sounds directed to another child.

#### Examples

Tries to get another child's attention by smiling or babbling to them.

Looks over at another child shaking a rain stick.

A blind child smiles in the direction of a babbling peer.

#### In-Practice Strategies

Model positive behaviors during peer interactions in English and/or the home language (for example, guide a child's hand and say, "*suave, suave*." ["gentle, gentle."]).

### Younger Toddlers *around 18 months*

Engages with a few children on a regular basis and knows some of their names, likes, or dislikes.

#### Examples

Engages in the same activity, such as playing with blocks, alongside the same peer almost every day.

Walks over to the same friend as they enter the room during drop-off and hands them a favorite toy.

#### In-Practice Strategies

Label other children's names and likes in English and/or the home language (for example, "I see Juan wants goldfish, and you want an apple for snack.").



Standard SE.RC.2 continued

**Older Toddlers**  
*around 36 months*

Develops friendships with a small number of children. Engages in interactions and plays with those friends more often than with other peers.

**Examples**  
  
Expresses an interest in playing with a particular peer when going outside.  
  
Jumps up and down and expresses enthusiasm to celebrate *Diwali* (the Indian festival of the lights) with his friends.  
  
Takes turns pulling a wagon through the yard with another child and singing a song in their home language.

**In-Practice Strategies**  
  
Encourage and comment on positive peer interactions in English and/or the home language (for example, “You two are sharing the blocks so nicely.”).

**Pre-K3**  
*around 48 months*

Demonstrates preference for playing with peers they identify as friends. Friendships are more reciprocal and consistent.

**Examples**  
  
Invites a few friends to help dig a ditch in the sandbox to make a river.  
  
Huddles near two friends to look at a map to find a secret treasure.

**In-Practice Strategies**  
  
Notice who children play with, and create opportunities for them to collaborate with friends.



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.RC: Relationships With Children

**Standard SE.RC.3:** Engages in play with other children.

### Infants *around 8 months*

(No indicator)

### Younger Toddlers *around 18 months*

Plays alongside other children.  
Imitates simple actions of other children.

#### Examples

Looks at another familiar child with their toy animal and makes animal noises.

Uses the same colors on their shamrock design as the child sitting right next to them.

Moves their body back and forth to jazz music as another child begins to move their body in a similar way.

#### In-Practice Strategies

Provide children with time, open space, and props/materials to engage in open-ended play (for example, put out several circle cookie cutters with modeling clay so multiple children can make the same shape).

## Standard SE.RC.3 continued

### Older Toddlers *around 36 months*

Joins other children in play by interacting with the same materials or toys, playing with similar activities, and sometimes working together.

#### Examples

Uses instrument toys to create music with other children.

Pushes a ball down a ramp while another child catches it and sets the ball up again.

Uses chopsticks to eat pretend food while playing “restaurant” as another child uses a fork and spoon.

#### In-Practice Strategies

Encourage collaboration by creating opportunities to play and work together in small groups (for example, “How can you help her scoop the sand into the bucket?”).

### Pre-K3 *around 48 months*

Engages with peers in simple, cooperative play, such as complex make-believe play, games, and other extended play with a common goal.

#### Examples

Engages in extended pretend play with another child using baby dolls, assigning one as the “mom” and the other as the “dad.”

Works on an art project with another child. One child begins to dot the glue while the other child selects pieces of foam to place on their artwork.

#### In-Practice Strategies

Create spaces and provide props representing diverse roles and backgrounds that are easily accessible for make-believe play (for example, dress-up clothes, play kitchen).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.EF: Emotional Functioning

**Standard** **SE.EF.1:** Develops an understanding of one's own emotions.

### Infants *around 8 months*

Expresses basic emotions including joy, fear, surprise, anger, and sadness through voice, facial expression, or body movements.

#### Examples

Smiles, laughs, or waves their arms to show pleasure while interacting with an adult.

Kicks their legs in frustration and begins to cry when the object they are holding is taken away.

#### In-Practice Strategies

Label children's expressed feelings in English and/or the home language and identify context clues from the face, body, or other areas that help demonstrate what they are feeling (for example, "*¡Que gran sonrisa! Te sientes feliz hoy.*" ["What a big smile! You are feeling happy today."]).

### Younger Toddlers *around 18 months*

Expresses a range of basic emotions such as joy, fear, surprise, anger, and sadness regularly in a clear, direct way.

#### Examples

Widens eyes and drops mouth open to show surprise as an airplane flies by.

Grins, nods, and claps their hands enthusiastically when served *jook* (a type of rice porridge popular in Asia), their favorite food.

Fusses and outstretches their arms to an adult when being passed to an unfamiliar aunt.

#### In-Practice Strategies

Offer stories, books, songs, and pictures in English and/or the home language about feelings (for example, a picture board of different emotions labeled in English and Spanish).

Standard SE.EF.1 continued

**Older Toddlers**  
*around 36 months*

Begins to express a range of complex emotions including pride, empathy, guilt, and embarrassment.

**Examples**

Grins, stands with shoulders back, or raises hands over their head to show pride after completing a challenging task.

Looks down, touches their face, and turns away with embarrassment when they become the focus of others' attention.

Runs to their sister in excitement and embraces them with a hug when reuniting.

**In-Practice Strategies**

Provide ongoing opportunities for children to name, discuss, and express emotions in English and/or the home language through activities such as art, dance, and imaginary play (for example, "What does 'mad' feel like to you? You can use these markers to show 'mad' on the paper.").

**Pre-K3**  
*around 48 months*

Uses words or gestures to identify some of their own basic and complex emotions, including happiness, sadness, anger, pride, and embarrassment.

**Examples**

Frowns and looks down at the floor to show sadness after being told no by an adult.

A child whose home languages are English and Spanish, tells their teacher, "I'm excited! I'm going to see *mi abuela* [my grandma] today."

Tells an adult about a nightmare they have just had. The adult listens carefully and reassures the child that they are there for them.

**In-Practice Strategies**

Demonstrate support and acknowledgment for all feelings children express (for example, provide a calm, empathetic tone to a crying child and an excited tone to a child who is overjoyed).





## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.EF: Emotional Functioning

**Standard SE.EF.2:** Develops an understanding of the emotions of others.

### Infants *around 8 months*

Attends to emotional expressions of others.

#### Examples

Watches with interest when another person shows emotion (smiles, laughs).

A blind child turns toward the sound of another child laughing.

Coos at their smiling teacher from afar.

#### In-Practice Strategies

Express emotion in face, body, and/or voice during interactions with children (for example, use eye contact, a big smile, and a warm, delighted voice while playing peekaboo).

### Younger Toddlers *around 18 months*

Responds to others' emotions, often by sharing the emotion.

#### Examples

Smiles, laughs, or appears excited when another person shows joy and excitement.

Frowns and begins to cry when they see another person crying.

#### In-Practice Strategies

When expressing emotions to children, label the emotion in English and/or the home language (for example, when the child smiles back at your smile, say, “¡Bebé feliz!” [“Happy baby!”]).

Standard SE.EF.2 continued

**Older Toddlers**  
*around 36 months*

Uses words or gestures occasionally to identify emotions in others, with the support of an adult.

**Examples**

Points to a crying character in a picture book and communicates that the character is mad.

Signs, “why sad?” in American Sign Language to their familiar adult.

**In-Practice Strategies**

Identify emotions in other people and in story characters and point out the face, body, and/or voice cues that communicate the emotion in English and/or the home language (for example, “Look, your friend Carla has a smile on her face and is clapping her hands. I think Carla is feeling happy.”).

**Pre-K3**  
*around 48 months*

Uses words or gestures to describe some emotions in others. Identifies the causes of others’ emotions occasionally.

**Examples**

Tells a familiar adult that another child is upset, and also says what happened to cause the emotion.

Tells an adult in the home language that their friend is sad because they did not get a second piece of *roti* (an Indian flatbread).

Tells an adult a brief story in their home language about a child who was afraid of the dark.

**In-Practice Strategies**

Ask children open-ended questions about the emotions of others in English and/or the home language (for example, “Why is Peter sad?”).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.EF: Emotional Functioning

**Standard SE.EF.3:** Responds with care and concern toward others.

### Infants *around 8 months*

Reacts to others' distress.

#### Examples

Cries when another child is crying.

Watches with a serious expression of another person who is excitedly shrieking.

Bangs a toy loudly as a nearby child is crying.

#### In-Practice Strategies

Identify and describe in English and/or the home language other people's emotions, including distress (for example, "*¿Escuchas a ese bebé llorando? Se siente triste.*" ["Do you hear that baby crying? They are feeling sad."]).

### Younger Toddlers *around 18 months*

Responds with concern to others' distress.

#### Examples

Observes another child showing distress and brings them a favorite toy or blanket.

Pats the arm of a familiar adult who is looking distressed.

Hugs another child who is sensitive to loud noises when they notice that the other child has covered their ears during playtime.

#### In-Practice Strategies

Acknowledge, in English and/or the home language, when children respond with care and concern toward others (for example, "That was kind! You found a hat for your friend.").

Standard SE.EF.3 continued

**Older Toddlers**  
*around 36 months*

Expresses concern for others with words or actions. Tries to help others.

**Examples**

Says, “That’s OK,” to another child who has dropped their toys or helps them pick up the toys.

Notices another child looking sad and offers them some of the *dduk* (a Korean rice cake) they are having for snack.

Two children form a “band” where they play different instruments such as the African drums and maracas. A third child approaches and wants to play too. The children hand him the tambourine and say, “You can play. This one!”

**In-Practice Strategies**

Encourage collaboration by creating opportunities to play and work together in small groups (for example, “How can you help her scoop the sand into the bucket?”).

**Pre-K3**  
*around 48 months*

Shows concern for others and tries to help others with an increased range of more complex actions.

**Examples**

Asks an adult how to help another child who is crying to feel better.

A child using a wheelchair moves close to another child who is sitting alone and invites them to play a game together.

**In-Practice Strategies**

Create spaces and provide props representing diverse roles and backgrounds that are easily accessible for make-believe play (for example, dress-up clothes, play kitchen).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.SR: Emotional Self-Regulation

**Standard** **SE.SR.1:** Develops the ability to manage own emotions and their expression.

### Infants *around 8 months*

Vocalizes or shows visible signs of distress; calms with soothing from a familiar adult.

#### Examples

Stops crying when held and rocked by an adult.

An upset child becomes quiet and alert when placed in their cradleboard by an adult.

#### In-Practice Strategies

Respond to children's distress calmly and with appropriate behavior in English and/or the home language (for example, "You are crying. I am going to change your diaper so you'll be more comfortable.>").

### Younger Toddlers *around 18 months*

Uses simple actions to self-soothe when distressed. Seeks and accepts comfort from familiar adult when distressed.

#### Examples

Asks to be held by an adult by communicating "up" with arms outstretched when upset.

A child feeling nervous to meet someone new looks out from behind a trusted adult's leg, then hides their face again.

#### In-Practice Strategies

Validate children's strong emotions and offer guidance or support for managing them in English and/or the home language (for example, "*Afuera se acabó el tiempo y eso te entristece. Es difícil dejar de jugar cuando nos estamos divirtiendo tanto. ¿Te gustaría elegir un libro para leer juntos adentro?*") ["Outside time is over and that makes you sad. It's hard to stop playing when we are having so much fun. Would you like to pick out a book to read together inside?"].



## Standard SE.SR.1 continued

### Older Toddlers *around 36 months*

Uses a range of actions to cope with distress or strong emotions, seeking comfort from adults or engaging in self-soothing.

#### Examples

Finds and plays with their favorite toy or blanket when feeling scared or sad.

A child with sensory sensitivity who is overwhelmed in a loud, crowded room takes an adult's hand and moves to a quiet, darkened area.

A child experiencing trauma cries and looks toward an adult when hearing the fire alarm. The adult comforts the child by offering a hug.

#### In-Practice Strategies

Provide children with gentle guidance and choices when managing intense energy and distress in English and/or the home language (for example, "I can see you need to move your body. Let's move over here where there is room for you to jump safely.").

### Pre-K3 *around 48 months*

Manages some emotions or distress with less adult support. Relies on support from familiar adults to cope with intense distress or strong emotions.

#### Examples

Finds a safe space to self-soothe after experiencing distress.

Jumps up and down with excitement to the music but begins to calm their body when a familiar adult prompts that they will transition to circle time in 5 minutes.

Runs to a familiar adult for a hug after an emotional drop-off.

#### In-Practice Strategies

Continue to validate children's emotions and provide them with tools they can use to manage their emotions (for example, quiet corner, breathing exercises, and words to describe how they're feeling).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.IB: Sense of Identity and Belonging

**Standard** SE.IB.1: Develops an understanding of self in relation to others.

### Infants *around 8 months*

Discovers self, including body movements, feelings, and preferences, through exploration and responses of others.

#### Examples

Responds by waving their hands or cooing when they hear their name being called.

Looks over to a familiar adult for their response after a big sneeze.

#### In-Practice Strategies

Label children's feelings and preferences in English and/or the home language (for example, "I see you really like ring toys. Do they feel good on your gums?").

### Younger Toddlers *around 18 months*

Shows awareness of their own abilities and characteristics through actions, movement, and verbal or nonverbal communication with others.

#### Examples

Stacks cups and then shifts attention to a nearby child to discover their response.

Takes a few more steps as they learn to walk after hearing their teacher cheering.

Points to adults' hands with henna designs and then looks to their own hand.

#### In-Practice Strategies

Acknowledge children's abilities and accomplishments in English and/or the home language (for example, "¡Sabía que podrías hacerlo!" ["I knew you could do it!"]).

Standard SE.IB.1 continued

**Older Toddlers**  
*around 36 months*

Identifies their own feelings, needs, characteristics, and preferences as different from others.

**Examples**

Excitedly chooses to play in the sandbox while the other children play on the playground.

While dancing, a child with cerebral palsy observes the way her body moves similarly and differently than others.

**In-Practice Strategies**

Encourage children’s expression of their individual preferences and needs in English and/or the home language (for example, “*Está bien que él quiera leer un libro y tú quieras salir a caminar. A veces todos queremos y necesitamos cosas diferentes.*” [“It’s OK that he wants to read a book and you want to go for a walk. We all want and need different things sometimes.”]).

**Pre-K3**  
*around 48 months*

Describes themselves and their family using multiple characteristics, including physical features, behaviors, and preferences.

**Examples**

Tells an adult that carrots are the only vegetable they don’t like when being served to them, then says, “Carrots are too crunchy for me.”

Draws a picture of their family and picks the brown crayon to match their skin tone.

Explains to an adult that they would like to go to the make-believe play area to put on the firefighter hat because they are strong “like a firewoman.”

**In-Practice Strategies**

Facilitate positive conversations about children’s behaviors and preferences in English and/or the home language (for example, the child says, “My mom has long curly hair, but my hair is straight.” The teacher replies, “Wow! That’s a great observation.”).



## SOCIAL AND EMOTIONAL DEVELOPMENT

**Strand** SE.IB: Sense of Identity and Belonging

**Standard** **SE.IB.2:** Expresses comfort and a sense of belonging with their family and other familiar people.

### Infants *around 8 months*

Expresses connection through vocalizations or smiling when familiar people are present.

#### Examples

Coos when a familiar adult walks into the room.

Shows curiosity when a familiar adult brings out a Chinese dragon puppet to celebrate the New Year, then smiles and giggles at the familiar adult.

Smiles widely at a familiar adult after a puppy comes over to lick their face.

#### In-Practice Strategies

Respond to children's cues by talking about familiar people, such as friends or family, in English and/or the home language when they are present (for example, "*¡Te veo sonriendo a tu hermano mayor!*" ["I see you smiling at your big brother!"]).

### Younger Toddlers *around 18 months*

Displays comfort and ease with familiar people while engaging in shared activities.

#### Examples

Claps along with their peers to a familiar song.

Signs, "more" in American Sign Language after a familiar adult suddenly stops pushing the child on the swings.

Works together with an adult to measure ingredients for banana pancakes.

#### In-Practice Strategies

Bridge children's social worlds by asking families to share stories, traditions, or objects from home in English and/or the home language.

Standard SE.IB.2 continued

**Older Toddlers**  
*around 36 months*

Shows contentment when participating with adults and other children in activities. Anticipates shared rituals and traditions.

**Examples**

Hands each peer a cupcake to celebrate their birthday.

Helps to light a candle on their family's *ofrenda* (an altar that is traditionally used during Mexican *Día de los Muertos* [Day of the Dead]).

**In-Practice Strategies**

Collaborate with families to bring traditions into the early childhood setting (for example, ask families how rituals might be incorporated into their schedule while away from home).

**Pre-K3**  
*around 48 months*

Communicates a sense of belonging to a family or other familiar groups through words or other forms of expression.

**Examples**

Talks to an adult about the different members of their family.

Offers every child in their Taekwondo class a high-five.

**In-Practice Strategies**

Listen, show interest, and create space and opportunities to share children's memories and stories about their family in English and/or the home language (for example, "*¿Qué tipo de animales vieron tú y tu hermana en el zoo?*" ["What kinds of animals did you and your sister see at the zoo?"]).



# APPROACHES TO LEARNING

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Approaches to Learning describes skills and behaviors that children use to learn, problem solve, and interact with others. These skills and behaviors include curiosity, initiative, persistence, and executive functioning.<sup>12</sup> Curiosity guides children's learning and explorations, while their initiative and persistence enables them to follow through as they encounter challenges and problem-solve. Executive functioning skills constitute a set of cognitive processes that help children focus, plan, and manage their behaviors and interactions with others. They include working memory, inhibitory control, sustained attention, and cognitive flexibility.<sup>13</sup> The skills and behaviors described in the Approaches to Learning domain support children's academic and social outcomes as they grow and transition into formal schooling and even into adulthood.<sup>14</sup>

Children's brain connections and learning develop rapidly during the first 5 years of their lives.<sup>15</sup> During this time, early experiences and interactions have a profound effect on *how* children's learning skills develop and express themselves. Because children have varying interactions and experiences, cultural and linguistic backgrounds, abilities, and temperaments, they may express these skills differently. For instance, some cultures may place a greater value on children managing their impulses, whereas others may place greater value on self-expression. The values a culture emphasizes may impact the way children develop their ability to manage their impulses.<sup>16</sup> Similarly, while children are born curious and motivated to learn, they will vary widely in how they approach learning depending on cultural experience. For example, in some cultures adults often lead children's play and learning, whereas other cultures may emphasize child-led play and learning.<sup>17</sup> Additionally, early multilingual learners may use their developing linguistic competence as they express their curiosity or play with others by switching between the languages they are learning. Honoring the various and unique ways children express their skills and knowledge can positively impact their learning experiences.



## APPROACHES TO LEARNING STRANDS

The Approaches to Learning domain includes the following strands:

- Initiative and Curiosity
- Executive Functioning

### INITIATIVE AND CURIOSITY

From the moment they are born, children show curiosity and a drive to explore the world.<sup>18</sup> As children develop, they are able to interact with the world in new ways. Curiosity is what motivates children to learn more about the world. Through their developing initiative, children act on their curiosity and are motivated to do things on their own. For instance, as children grow, they use their initiative to make choices, and they increasingly ask questions about how the world works. Curiosity and initiative are important skills that motivate and enable children to learn more about the world, people, and things.<sup>19</sup> This strand describes how children's initiative and curiosity help them learn, play, and engage in routines and activities as they develop. It also describes children's interest in new things, people, and play.

### EXECUTIVE FUNCTIONING

Executive functioning skills play an important role in how children engage in activities, solve problems, play, learn, and manage their interactions with others.<sup>20</sup> These skills include children's ability to focus and maintain their attention (sustained attention); manage their impulses and behaviors (inhibitory control); consider different ways to solve problems or accomplish goals (cognitive flexibility); and keep in mind concepts in order to problem-solve, play, or engage in tasks (working memory). This strand also describes children's ability to persist through challenges and finish tasks. Early on, young children have limited executive functioning skills and must rely on adults to help them build these skills. As they grow and build these skills, they will gradually require less adult support. This strand describes how children develop executive functioning skills and learn to persist through tasks.

### Learning Through Play

Through play children learn about themselves, others, and the world around them. Play sparks curiosity and interest in children as they take the initiative to explore objects and their surroundings. During play children also practice important executive functioning skills, which are foundational to how children learn, plan, and problem-solve. For instance, when playing games children engage in working memory as they keep rules or concepts in mind. Children also practice managing their impulses as they engage in play with others and wait their turn or share toys. Pretend play exercises children's cognitive flexibility, as children use imagination and creativity to role-play and use objects to represent other objects (for example, use dough and sand to represent a pie or feed a stuffed animal pretend fruit). Providing children with a variety of play experiences and choices is crucial for their development and learning across all domains.



## APPROACHES TO LEARNING

### INCLUSIVE STANDARDS FOR ALL CHILDREN

#### CHILDREN WITH DISABILITIES

In supporting children with disabilities in the Approaches to Learning domain, educators need to keep in mind that each child learns at a different pace and in a different way. Children with attention deficit hyperactivity disorder (ADHD) and autism may demonstrate executive functioning skills in different ways. For instance, some children with ADHD or autism may become very excited when they are playing and learning and may often act on their impulses when exploring or engaging with others. Children with ADHD or autism may also become very persistent and may find it difficult to stop what they are doing to switch to a new activity. Therefore, it is important to tailor support to children's individual needs and abilities when supporting their learning of particular skills. If children's disabilities impact their ability to actively explore their environments and/or engage in play with peers, their opportunities to develop some approaches to learning skills may be impacted. Some children may benefit from specific accommodations or adaptations to fully participate in all learning. For instance, teachers can adapt environments and play materials to provide all children with the opportunities to build their approaches to learning skills through play. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high-quality, individualized education for children with disabilities.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing information, and expressing knowledge.<sup>21</sup> Universal design does not replace individualized support and instruction for children with disabilities, but UDL is a strengths-based approach to supporting the characteristics and abilities of diverse learners. Educators can foster children's diverse ways of playing and exploration by offering a variety of toys and activities that engage children and spark their interest. Children should feel safe to explore and make choices about what they choose to engage with and how they choose to engage. Some children may prefer to play with peers through pretend play, while others may choose to explore their senses through sensory tables or outdoor play. By providing a space for children to practice Approaches to Learning skills and behaviors, educators can help children build their initiative, curiosity, and executive functioning skills.



## IN-PRACTICE STRATEGIES

Responsive, warm, and consistent interactions with adults help children build and strengthen their Approaches to Learning skills and behaviors. Each standard includes one in-practice strategy per age group describing how educators can support children to develop the knowledge and skills described in the standard. Below are some examples of in-practice strategies educators can use to support children's development and learning across the standards in approaches to learning:

- Create safe environments that spark children's interest by providing a variety of opportunities for children's exploration (for example, indoor play, outdoor play, sensory stations) and periodically changing materials and toys.
- Ask children "what," "where," and "why" questions when interacting with them to engage their curiosity and help them form predictions. For instance, "What happened to the ball? Where did it roll to?"
- Provide children with opportunities to make their own choices by inviting them to choose from a variety of engaging activities or materials to play with.
- Be sensitive to children's temperaments and abilities when introducing new and challenging activities. Adapt activities so children with disabilities can experience appropriate levels of independence and challenge. Respond promptly if children ask for help as they engage in difficult activities and offer suggestions if you notice them getting too frustrated. Not jumping in and taking over a task will help support their initiative and persistence.
- Offer a variety of games and playful activities to help children practice their ability to manage their impulses and behaviors, such as stop-and-go games (for example, Red Light, Green Light or Simon Says) and sing rhymes with them or play board games so they can practice using their short-term memory to remember the order of words and sounds or rules.
- Acknowledge children's efforts. For example, "Wow! You worked so hard on that painting! It's beautiful!" or "You really concentrated while you built that tower! Look how tall it is!"



## APPROACHES TO LEARNING

**Strand** ATL.IC: Initiative and Curiosity

**Standard** **ATL.IC.1:** Shows initiative in interactions, routines, play, and other experiences.

### Infants *around 8 months*

Explores objects and engages in interactions with others.

#### Examples

Picks up a nearby object and shakes it to see if it makes a sound.

Rocks back and forth on hands and knees trying to propel their body toward another child near them.

#### In-Practice Strategies

Provide children with a safe space to engage in simple play by using their body and senses (touching, mouthing, holding, shaking objects) to reach and explore objects or roll around. In English and/or the home language, describe to children what they are experiencing (for example, say to the child, “¿Oyes el sonajero temblar?” [“Do you hear the rattle shake?”]).

### Younger Toddlers *around 18 months*

Explores and plays with objects in new ways. Participates and contributes to routines with the support of an adult.

#### Examples

Uses wooden utensils to bang on a *tawa* pan (pan used throughout South, Central and West Asia).

Hands an adult a sponge during bath time.

#### In-Practice Strategies

Provide children with a variety of familiar and unfamiliar objects to play with, explore, and manipulate, indoors and outdoors. In English and/or the home language, introduce new ways to play with familiar objects (for example, say, “Let’s use this empty box as a toy boat for stuffed animals.”).

## Standard ATL.IC.1 continued

### Older Toddlers around 36 months

Starts activities of interest and uses play materials to explore an idea or emerging skill without being prompted.

#### Examples

Carries a book over to an adult and in their home language says, “Read, please.”

Goes to a table with art supplies, sits down, and uses paper and watercolors for a new art project.

Approaches the block play area and pulls out only the blue and red blocks to make a house.

#### In-Practice Strategies

Engage children in play with a variety of activities and manipulatives and introduce children to new tools they can use to expand on ideas and skills (for example, you might show children how to use a magnifying glass to study bugs or ask them questions as you read to them: “Can you find the sun on this page?”).

### Pre-K3 around 48 months

Regularly starts and continues some activities, play, and routines independently. Shows enjoyment and interest in engaging in new activities.

#### Examples

Offers to help an adult set the table for lunch. Places the plates and napkins on the table and asks for the cups.

Approaches another child and invites them to play, “Today I will be Spider-Man, and you Batman.”

Uses their communication device to ask an adult for the number magnets.

#### In-Practice Strategies

Give children opportunities to try things by themselves, and provide children with a role in routines or activities (for example, have a child pass out paintbrushes for an art activity).



## APPROACHES TO LEARNING

**Strand** ATL.IC: Initiative and Curiosity

**Standard** **ATL.IC.2:** Shows curiosity and interest when engaging with new objects, people, and experiences.

### Infants *around 8 months*

Shows interest when interacting with others and exploring objects.

#### Examples

Pushes a rainmaker on the ground and expresses excitement after each roll.

Reaches for an adult's hair when being held.

Moves body and tries to lunge forward toward an adult who is extending and shaking a maraca in the direction of the child.

#### In-Practice Strategies

Provide children with a safe space to engage in simple play by using their body to try to reach objects, explore, or roll around. In English and/or the home language, describe to children what they are experiencing (for example, rotate objects and describe the actions children engage in while interacting with objects).

### Younger Toddlers *around 18 months*

Displays excitement and interest in new objects, people, or events by attentively observing and approaching, vocalizing, or gesturing.

#### Examples

Squeezes an adult's hand and points with excitement at a helicopter flying overhead.

Claps and smiles while an adult plays *cumbia* music (style of Latin music) with new class instrument, an accordion.

#### In-Practice Strategies

Engage children with a variety of new activities and be attentive to the activities that they enjoy (for example, you might notice a child gets fascinated with a particular activity as they focus attentively and for a longer time compared to other activities).

## Standard ATL.IC.2 continued

### Older Toddlers around 36 months

Seeks out information about new people, objects, and events with interest. Acts on objects, intentionally, to see what happens.

#### Examples

Throws a ball to see where it lands.

Grabs an adult's hand to bring them to a snail they found. The child points to the snail and glances back up to the adult in excitement.

#### In-Practice Strategies

Encourage and support children's interests by offering objects that interest them and activities where they can extend their interests, some which reflect children's home and cultural experience and some which are new (for example, for a child that shows interest in the moon, you may offer books about the moon or painting activities that involve the moon and sun).

### Pre-K3 around 48 months

Pursues detailed information about new people, objects, and events. Approaches new experiences with interest, sometimes taking risks to try out new ideas.

#### Examples

Asks about a new child in the class and then approaches the child to see if they'd like to play in the sandbox together.

Tries catching butterflies outdoors and asks a peer in their home language, "What do butterflies eat?"

Spends free playtime sorting dinosaurs by type and sharing with an adult, "These are called Stegosaurus."

#### In-Practice Strategies

Provide opportunities for unstructured play and experimentation and set up different play stations with a variety of materials to allow children to follow their interests.





## APPROACHES TO LEARNING

**Strand** ATL.IC: Initiative and Curiosity

**Standard** ATL.IC.3: Shows engagement and interest in play.

### Infants *around 8 months*

Explores objects and engages in interactions with others.

#### Examples

Bangs a rattle against a book and the floor, listening to the different sounds.

Claps hands after adult claps hands while laughing.

#### In-Practice Strategies

Offer children opportunities to explore and play with toys and objects with different textures, shapes, and sizes, and engage with them as they explore (for example, set out a few toys within reach of a child who is not yet moving independently, varying which toys are available throughout the day).

### Younger Toddlers *around 18 months*

Explores objects in parallel with peers and engages in simple pretend play based on familiar everyday activities (for example, pretending to feed a baby doll).

#### Examples

Puts a doll into a car seat and tells the doll in Spanish, “*No llores.*” [“Don’t cry.”].

Stacks blocks near a peer who is playing with plastic shapes.

Uses a pretend stove while a peer is gathering pretend food items in the play kitchen area.

#### In-Practice Strategies

Engage with children during play by asking questions and describing what you see them doing in English and/or the home language (for example, while exploring modeling clay: “I see that you have a rolling pin. Can you use that to make the dough flat?”).

## Standard ATL.IC.3 continued

### Older Toddlers around 36 months

Engages in play with peers, including pretend play, physical play (for example, running, jumping, climbing), and constructive play (for example, building with blocks, playing in the sandbox).

#### Examples

Pushes large toy trucks around the playground with another child while calling out, “We’re the truck drivers!”

Runs around outdoors with peers as they kick a ball.

#### In-Practice Strategies

Support children in learning challenging social play skills like taking turns (for example, ask children whose turn it is to go down the slide next, supporting quieter children to get a turn).

### Pre-K3 around 48 months

Engages in more complex play with peers. Pretend play is more elaborate and may include both real and fantasy elements. Physical play and constructive play may include rules, joint planning, and extended engagement.

#### Examples

Tells a peer, “My glasses are magic glasses. I can see all the way to Grandma’s house in Baltimore.” The peer responds, “I have a magic carpet too, and we can go anywhere! Let’s pretend we go to Baltimore.”

Picks a peer to be “it” and tags other players during a game of freeze tag: “You be ‘it,’ and then it’s my turn to be ‘it!’”

Builds a castle out of blocks with peers over the course of two separate play sessions.

#### In-Practice Strategies

Use open-ended questions to build on children’s play and to help children join in play with their peers (for example, “I see that Javier is pretending to be a lion, and Devansh is pretending to be a bear. What animal could you be?”).



## APPROACHES TO LEARNING

**Strand** ATL.EF: Executive Functioning

**Standard** **ATL.EF.1:** Develops the ability to persist in actions and behaviors.

### Infants *around 8 months*

Shows the ability to engage in interactions or explore objects. Repeats an action or vocalization several times to gain an adult's attention or explore an object.

#### Examples

Coos and smiles at an adult until the adult turns to them and smiles back.

Kicks their feet on a piano gym mat to produce sounds.

Scoots their body over toward a ball until they are close enough to reach it.

#### In-Practice Strategies

Repeat activities and experiences, especially if the child shows interest (for example, continuing to shake a rattle as they try to grab it).

### Younger Toddlers *around 18 months*

Intentionally repeats actions in an effort to achieve a simple goal, even when encountering a challenge.

#### Examples

Tries to pick up a slippery piece of avocado.

Continues to place the train on train rails, despite the train continually tipping over.

#### In-Practice Strategies

Provide children with a variety of objects to play with and repeat new skills (for example, shape sorters, stacking blocks, instruments) and encourage children verbally, in English and/or the home language, and nonverbally to persist in achieving a goal (for example, smiling and clapping and saying phrases such as, "¡Hurra! ¡Lo hiciste!" ["Yay! You did it!"]).

## Standard ATL.EF.1 continued

### Older Toddlers around 36 months

Stays engaged on tasks and tries different strategies to achieve a goal, working through challenges with an adult's support.

#### Examples

Completes a challenging puzzle together with the help of an adult who prompts in the child's home language about what pieces to select.

Tries to pull the lid off a shape sorter a few times before banging the shape sorter on the ground to dislodge the lid.

#### In-Practice Strategies

Provide a range of playful activities for children to practice their problem-solving abilities in various contexts. Observe children closely to provide support based on individual needs, in English and/or the home language.

### Pre-K3 around 48 months

Persists on tasks, trying multiple strategies over a sustained period to achieve a goal, sometimes with adult support.

#### Examples

Adjusts wheelchair position until it aligns with the T-ball set so they can hit the ball with their baseball bat.

Works with peers to make a house with big Legos. Tries extending their body to reach the top of their Lego house and, when this doesn't work, grabs a nearby stool with adult assistance.

Attempts to zip up their jacket several times and then asks an adult for help.

#### In-Practice Strategies

Provide opportunities for children to engage in challenging activities where they can come up with solutions and try new skills; observe closely as children try different solutions and, as needed, offer support in English and/or the home language (for example, saying, "*Tal vez tu amigo pueda ayudarte, ¿les has preguntado?*" ["Maybe your peer can help you, have you asked them?"]).



## APPROACHES TO LEARNING

**Strand** ATL.EF: Executive Functioning

**Standard** **ATL.EF.2:** Develops the ability to keep information in mind active for immediate use (working memory).

### Infants *around 8 months*

Shows emerging awareness that familiar people and objects exist even when they are no longer physically present.

#### Examples

Waits for an adult's return in anticipation as the adult moves out of the child's sight for a moment.

When playing peekaboo with an adult, smiles and waits in anticipation for the adult to remove their hands from their face.

Looks for pacifier after an adult takes it away.

#### In-Practice Strategies

Engage children in simple games such as peekaboo or hide and seek, keeping objects within reach of the child.

### Younger Toddlers *around 18 months*

Engages in looking for objects or people that are hidden and follows simple one-step directions with adult support.

#### Examples

While playing with a puzzle, an adult points to a yellow puzzle piece that is under the table and encourages the child to get it. The child wanders over to pick up the yellow puzzle piece and returns to the puzzle.

Follows an adult's direction to put their jacket in their cubby when they get back inside. Upon arriving inside, goes toward their caregiver for help with taking off their jacket so they can put it in their cubby.

Giggles as they look for an adult that's hiding behind a nearby chair.

#### In-Practice Strategies

Provide children with simple and clear one-step instructions or directions in English and/or the home language during activities and routines (for example, say "Grab the ball. The ball is behind the couch," and then point to the couch you are referring to, or, "Put your jacket in your cubby:").

## Standard ATL.EF.2 continued

### Older Toddlers around 36 months

Engages in simple play and activities that require maintaining a rule or concept in mind for a brief time and follows simple two-step directions with adult support.

#### Examples

Plays matching card games and remembers which picture was under the card.

During pretend play, after a peer asks the child to get puppets and toy food items to play with, the child approaches the toy bin, grabs the correct items, and returns to their peers.

Follows the instruction to go outside while repeating with excitement in Spanish, “*Vámonos.*” [“Let’s go.”].

#### In-Practice Strategies

Provide children with a variety of play opportunities that require following simple two-step directions and use a combination of words in English and/or the home language, gestures, or visuals in your explanations (for example, when playing Red Light Green, you may say, “When you hear me say ‘red light,’ you’re going to stop,” followed by a halt hand gesture, and, “When you hear me say ‘green light,’ you’re going to run,” followed by running quickly for a few steps).

### Pre-K3 around 48 months

Keeps complex two-step directions or concepts in mind and uses the information for multistep play, performing tasks, and following more complex directions, with limited adult support.

#### Examples

Keeps track of when their turn will be while playing a board game.

Follows adult’s instructions for how to dance to the song “La Macarena” and coordinates their movements with the correct parts of the song.

Recounts main events and relevant characters from a story when an adult asks about the book after story time. “The frog was sad, but then he made a friend and was happy!”

#### In-Practice Strategies

Engage children in a variety of games that require them to follow multistep instructions and remember the rules of the game (for example, when playing Simon Says, children should only do the actions preceded with “Simon says,” so they must keep in mind the actions said to them and whether “Simon” is saying them. When children are mastering two-step actions, try three actions).



## APPROACHES TO LEARNING

**Strand** ATL.EF: Executive Functioning

**Standard** **ATL.EF.3:** Develops the ability to manage impulses and reactions (inhibitory control)\*.

### Infants around 8 months

Vocalizes or shows visible signs of distress and calms with soothing from a familiar adult.

#### Examples

Stops crying when held and rocked by an adult.

Becomes quiet and alert when placed in their cradleboard by an adult after being upset.

#### In-Practice Strategies

Respond to children's distress calmly and with appropriate behavior in English and/or the home language (for example, "You are crying. I am going to change your diaper so you'll be more comfortable.>").

### Younger Toddlers around 18 months

Uses simple actions to self-soothe when distressed. Seeks and accepts comfort from a familiar adult when distressed.

#### Examples

Asks to be held by an adult by communicating "up" with arms outstretched when upset.

Looks out from behind a trusted adult's leg, then hides their face again, while feeling nervous to meet someone new.

A child coping with trauma is crying loudly and banging toys on the carpet before naptime. An adult picks up the child and provides comfort. The child is still distressed but eventually settles down into a nap.

#### In-Practice Strategies

Validate children's strong emotions and offer guidance or support for managing them in English and/or the home language (for example, "*Se acabo el tiempo de estar afuera y eso te entristece. Es difícil dejar de jugar cuando nos estamos divirtiendo tanto. Te gustaría elegir un libro para leer juntos adentro?*" ["Outside time is over, and that makes you sad. It's hard to stop playing when we are having so much fun. Would you like to pick out a book to read together inside?"]]).

\* Infants and Younger Toddlers develop inhibitory control similarly to how they develop their ability to manage emotions and expressions (see [SE.SR.1](#)).



Standard ATL.EF.3 continued

**Older Toddlers**  
*around 36 months*

Occasionally manages impulsive behaviors by pausing before reacting, with frequent adult support.

**Examples**  
  
Needs frequent reminders about moving to a reading activity on the carpet while they are absorbed in building a tower with blocks. An adult provides extra reminders in the child’s home language.  
  
Waits to open the paint container (as instructed) despite being super excited about the art activity.  
  
Follows adult guidance when a peer takes their mini guitar. Instead of hitting the peer, signs, “No, mine,” in American Sign Language.

**In-Practice Strategies**  
  
Provide frequent reminders of classroom expectations in English and/or the home language (for example, say, “We don’t run inside, we walk. We don’t hit others, we use our words”) and give children plenty of time to transition from one activity to the next (for example, say, “After free playtime, we’ll clean up and get ready for a snack,” and, “You have five minutes left, here’s the timer. When it goes off, we’ll start cleaning up.”).

**Pre-K3**  
*around 48 months*

More consistently and independently manages impulsive behaviors by pausing before reacting.

**Examples**  
  
Gets up from their seat and walks to join the line after an adult reminds everyone to “please walk and not run inside.”  
  
Fidgets with hands while waiting for their snack, instead of rushing to grab a snack.

**In-Practice Strategies**  
  
Help children manage their behaviors and impulses by providing occasional reminders and acknowledging their effort, in English and/or the home language (for example, say, “Use your words,” “I like how you raise your hand”, and “Take a deep breath.”).



## APPROACHES TO LEARNING

**Strand** ATL.EF: Executive Functioning

**Standard** **ATL.EF.4:** Develops the ability to maintain attention and focus (sustained attention).

### Infants *around 8 months*

Attends to people or objects of interest in the environment.

#### Examples

Engages in peekaboo with an adult, then turns away when they hear children banging on instruments across the room.

Sees their favorite character, Elmo, in a book and smiles.

Smiles and reaches their hands out when a colorful puppet is shaken in front of them.

#### In-Practice Strategies

Follow children's cues and gaze and describe in English and/or the home language what they are noticing (for example, say, "Oh! You see the patterns on the book! Look at this one!").

### Younger Toddlers *around 18 months*

Focuses on an activity for brief periods but is easily distracted.

#### Examples

Claps along with an adult and several other children as they sing "*Los pollitos*" ["The Little Chickens"] in Spanish.

Attends to a short story that an adult is reading but becomes distracted when hearing children playing outside.

Stacks Lego blocks for a few minutes and then notices a peer playing with toy trucks. Stops stacking Legos to play with toy trucks.

#### In-Practice Strategies

Provide an environment that is safe, calm, and not overstimulating so children can focus on exploring and playing with a few objects or materials at a time (for example, set up craft activity on the arts table, removing all other objects nearby).

## Standard ATL.EF.4 continued

### Older Toddlers around 36 months

Focuses on an activity and maintains attention for a moderate period of time, with adult support, even with minor distractions.

#### Examples

Focuses on forming a modeling clay sculpture for several minutes while other children are playing loudly in another area of the room.

Uses their adaptive paint brush to paint a picture of the sun while naming the color and shape, “Yellow circle!”

Rides a tricycle for half of outdoor playtime and then shifts to playing at the sandbox with other peers for the remaining of outdoor time.

#### In-Practice Strategies

Provide a predictable routine to help children focus on the task or activity at hand.

### Pre-K3 around 48 months

Focuses on an activity, intently, for an extended period of time, despite distractions, with adult support.

#### Examples

Pretends to make *jollof rice* (a traditional Nigerian dish) in the play kitchen during most of free playtime despite other peers also using kitchen props and playing nearby.

A child coping with trauma focuses on an art and crafts activity with an adult. The adult shifts to help another child. When the child notices the adult is not near them, they become upset and disengaged in the activity. The adult reorients the child to the next step of the art activity and assures them that she will be right back. The child waits until the adult returns to reengage with the activity.

Focuses on a puzzle, fitting many of the pieces together. When the child begins to look around the room, an adult refocuses the child’s attention by encouraging them to try another piece, and the child completes the puzzle.

#### In-Practice Strategies

Provide tools and support in English and/or the home language to help maintain children’s attention and focus on a task (for example, visuals, reminding them to breathe, letting them know what activity or task comes next).



## APPROACHES TO LEARNING

**Strand** ATL.EF: Executive Functioning

**Standard** **ATL.EF.5:** Develops flexibility in attention, actions, and behaviors (cognitive flexibility).

### Infants *around 8 months*

Repeats actions and behaviors. (May try more than one approach to reach a goal.)

#### Examples

Reaches for an out-of-reach object before rolling toward the object.

Uses hands and arms to try to reach an empty plastic container, and then becomes agitated because they can't reach it.

Tries to pull off an adult's hat with one arm and then tries to lift their body up to reach with their other arm.

#### In-Practice Strategies

Provide children with consistent routines and a safe space to explore and play with objects.

### Younger Toddlers *around 18 months*

Shifts focus to attend to new information or participate in new activities. Explores new and creative ways of using objects.

#### Examples

Uses a pot to stir play food and later turns it over to use it as a drum.

Plays with modeling clay with a peer and then notices a peer playing with a new set of wooden blocks. Leaves the modeling clay and begins to play with the new set of wooden blocks.

#### In-Practice Strategies

Support children through transitions. Model new and creative ways children can play with a variety of objects and materials (for example, using sticks to build a small toy house with leaves as a roof).

## Standard ATL.EF.5 continued

### Older Toddlers around 36 months

Adjusts actions and behaviors to solve a problem or to adapt to changes in routines, with the assistance of an adult.

#### Examples

After two weeks of the new snack routine, a child who is experiencing homelessness still has difficulty adapting to the new routine. The adult gives the child their favorite stuffed animal to sit with them during snack time. After a few days, the child begins to show less distress and anticipates the new snack routine, looking for his stuffed animal before sitting down at the table.

Uses eye gaze and pointing to communicate to an adult that a peer spilled paint on the floor. When the adult doesn't see the paint, the child walks over to the spot and, in Spanish, says, "*Mira. Aquí.*" ["Look. Here."].

Tries pushing a peer in a wagon and then follows an adult suggestion to recruit another peer for help since the wagon is not moving.

#### In-Practice Strategies

Support children as they encounter a problem and need to adjust their actions or behavior to solve a problem. Observe closely and adjust your support based on individual children's needs, in English or the child's home language.

### Pre-K3 around 48 months

Demonstrates flexibility in thinking and behavior, considers alternatives to solving a problem, and switches approaches with the support of an adult.

#### Examples

Tries putting on their new shoes by standing and pushing their foot into the opening—a strategy that worked well with their boots. When an adult asks, "Hm. Why isn't that working with these shoes?" the child sits down and pulls the straps loose before pulling the shoe on with both hands.

Children are using a puppet play stand, but the curtain keeps falling. An adult asks, "Can you use a sheet and try to make your own puppet play stand?" A child grabs a sheet while another child helps him hang it on the stand.

#### In-Practice Strategies

Model in English and/or in the home language ways that children can approach and solve problems (for example, suggesting new approaches to try, asking questions about their process).



## LANGUAGE AND LITERACY

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Language and literacy development describes how young children understand and use language and how they learn about reading and writing. Even before they are born, babies are already making sense of language.<sup>22</sup> Before they can talk, babies make sounds and gestures to communicate.<sup>23</sup> Experience with language in their environments allows children to develop vocabulary and the ability to understand and use increasingly complex statements and questions to communicate.<sup>24</sup> This experience may be in English and/or children's home languages. An effective way to provide children with experience with language is through books and storytelling. It is important for children to experience books and stories from an early age. Even young infants become interested in literacy by touching and chewing on books and simply enjoying storytelling from caregivers.<sup>25</sup> High-quality language and literacy experiences in early childhood lay the foundation for children's future development and learning.

The indicators and examples in these standards show some, but not all, of the ways that children with diverse needs and abilities may demonstrate their skills and knowledge.



# LANGUAGE AND LITERACY STRANDS

The Language and Literacy Development domain includes the following strands:

- Listening and Understanding
- Communicating and Speaking
- Vocabulary
- Early Literacy

## LISTENING AND UNDERSTANDING

This strand describes how children learn to understand the language used by those around them. When they are still developing in the womb, babies are already experiencing and learning language.<sup>26</sup> During the early years, children quickly move from understanding a few words and gestures to understanding more complex phrases and sentences.<sup>27</sup> They also gradually understand and follow increasingly complex directions.<sup>28</sup>

Young children are also learning a skill called joint attention, which is the ability to pay attention to the same thing as someone else.<sup>29</sup> In their first year of life, infants begin to develop this skill by understanding and following where someone else is directing attention. Older children learn that when they communicate about something, other people look at what they are talking about.<sup>30</sup> These skills are a key component of social communication, helping children learn to engage in a conversation with someone about a shared topic of interest.<sup>31</sup>

## COMMUNICATING AND SPEAKING

From birth, children coo, cry, and produce other sounds to communicate their interests, wants, and needs.<sup>32</sup> Later, babies and younger toddlers learn to use gestures, signs, and words to communicate. As they progress through their toddler years, most children develop the ability to combine words in longer phrases and sentences.<sup>33</sup> At first, only family members and caregivers might understand children's first words and signs. However, as children develop, their speech or signing becomes clearer and easier to understand.<sup>34</sup> Finally, they learn language norms such as how to begin conversations and respond to others.<sup>35</sup> This strand details how children learn to communicate their interests, wants, and needs and how they develop the use of grammatical structures, clarity of speech, and conversational skills.

## VOCABULARY

Learning what people, objects, and concepts are called is an important aspect of language development. Young children can understand vocabulary words before they are able to produce (i.e., say or sign) them.<sup>36</sup> The first words an infant understands are usually words for familiar people and objects.<sup>37</sup> Mobile infants and younger toddlers identify words they can see or experience in the present moment. For example, a child might connect the word *ball* with the round object in front of them. Over time, children recognize words that refer to people and objects they cannot see or directly experience.<sup>38</sup> Their language gradually includes words that categorize and describe people, ideas, and objects.<sup>39</sup> This strand describes the stages of learning increasingly advanced vocabulary that build children's understanding and communication.

## EARLY LITERACY

Early literacy begins in infancy during shared book time between children and their caregivers. Babies might interact with books by chewing book covers, feeling textured illustrations, and flipping pages back and forth.<sup>40</sup> Experience with books and oral or signed storytelling lays the groundwork for other early literacy skills.<sup>41</sup> Young children learn to understand stories and information from books, recognize letters and print, and notice the sounds that make up words.<sup>42</sup> Over time, children increasingly understand the concept of print and the relationship between letters, sounds, and meaning.

Early literacy also includes writing development. Very young children may draw uncontrolled scribbles, which is the first step in early writing.<sup>43</sup> As children progress, their writing may be a mix of drawing, writing, and verbal or signed description.<sup>44</sup> This strand outlines how children learn about books and stories, sounds and symbols, and early writing skills.



## LANGUAGE AND LITERACY

### INCLUSIVE STANDARDS FOR ALL CHILDREN

#### CHILDREN WITH DISABILITIES

In supporting children with disabilities in the Language and Literacy domain, educators need to keep in mind that each child learns at a different pace and in a different way. For instance, children with autism, speech or language delays, hearing loss, or other physical disabilities may follow different language development paths. Some children may understand language for many months or even years before ever speaking. Other children may take a long time to learn how to say certain sounds or words. Additionally, most Deaf children have hearing parents who do not sign. Therefore, many Deaf children do not have the same access to language at birth that hearing children do, which puts them at a higher risk for delayed language development. Educators should collaborate with Deaf children's families and caregivers to facilitate ways their children prefer to communicate. Some children may use alternative and augmentative communication (such as symbols boards or speech-generating devices) to express themselves. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high-quality, individualized education for children with disabilities.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing information, and expressing knowledge.<sup>45</sup> Universal design does not replace individualized support and instruction for children with disabilities, but UDL is a strengths-based approach to supporting the characteristics and abilities of diverse learners. To provide children with diverse ways to practice their language and literacy skills, educators can facilitate activities in which children participate and represent their knowledge in varied verbal and nonverbal ways (for example, in their home language and through gestures and movement). Educators can also provide children with a variety of ways to engage in language and literacy exploration through books, toys, and songs. With a diversity of ways to engage with language and literacy, children will be able to grow their skills and build upon areas of strength.

#### EARLY MULTILINGUAL LEARNERS

Early Multilingual Learners may also be called Dual Language Learners or English Learners. All these terms describe a child who is learning more than one language at a time. The language or languages a child is learning at home are referred to as the home language(s).

Children learn the languages they experience through interactions at home and/or in an early childhood program. These languages may be spoken or sign languages. Most children follow similar developmental paths no matter what language they are learning. However, each language has its own features and rules that impact how children learn certain skills. Although many of the examples in the Language and Literacy domain show a child communicating in English or Spanish, the standards can be used to support children's development in other languages. For Early Multilingual Learners, development may follow a slightly different course. Early Multilingual Learners communicate their knowledge using different languages they know. For example, they may use words from two different languages together in the same sentence or conversation, or they may use vocabulary from one language with the grammar of another language. Children who are learning a new language (such as English) for the first time in an early childhood program may spend days or weeks observing other people before they communicate in the new language.

Supporting children's home language development provides a foundation for language and literacy development throughout children's lifetimes. Using their home languages strengthens children's ties to their families and communities. In addition, a strong basis in their home language can help children learn other languages, such as English. Even if a child's home language is different from the language spoken in their early childhood program, caregivers in the program can help support a child's home language development by learning a few words in the child's home language, finding books in the child's home language, or inviting the child's family or community members to share songs or stories with the children.



## IN-PRACTICE STRATEGIES

Educators, families, and other adults can support children's language and literacy development every day by offering a high-quality learning environment. Each standard includes one in-practice strategy per age group describing how educators can support children to develop the knowledge and skills described in the standard. Below are some examples of in-practice strategies educators can use to support children's development and learning across the standards in language and literacy:

- Connect language to the real-life environment. For example, point to an object or hold it up while you say the word in English and/or the home language.
- Provide children with plentiful opportunities to experience language. For example, narrate and describe what children are doing or experiencing throughout the day, sing, tell stories, or share rhymes with children.
- Learn about what language or languages children's families use at home. Ask the family questions about the language or languages the child uses in their home and what language or languages they speak with siblings, cousins, grandparents, or other family members.
- Help children engage in conversation by repeating and expanding on what they say and asking follow-up questions in English and/or the home language.
- Encourage children to interact with books. For infants and young children, encouragement might mean reading books with textures or flaps and allowing the child to feel the books and turn the pages. Older children benefit from an environment that allows them to explore books on their own, such as a low bookshelf and a comfortable place to sit.
- Read to children every day in English and/or the home language. Read storybooks and informational books, and tell stories and rhymes aloud. Engage toddlers and preschoolers by asking open-ended questions about books, inviting them to share their favorite parts or facts they have learned, and encouraging them to participate in rhymes to the extent they are able by using their voices or by moving along.
- Create an environment filled with print by providing labels, signs, books, and alphabet toys (for example, alphabet blocks or foam letters) in English and/or the home language.



## LANGUAGE AND LITERACY

**Strand** L.LU: Listening and Understanding

**Standard** **L.LU.1:** Attends and responds to others and develops the ability to engage in joint attention with another person.

### Infants around 8 months

Develops the ability to follow adult gaze to look at objects of interest.

Note that a child who is blind may follow other adult cues, such as sound or touch.

#### Examples

Looks toward the doorway after an adult points and says in Spanish, “¿Quién está aquí?” [“Who is here?”].

Looks at their peer as an adult is helping the peer to put on their shoes.

An adult says, “Look, here’s a new ball,” and holds up a red ball. A child follows the attention of the adult to look at the ball.

#### In-Practice Strategies

When talking to infants about things in their environment, offer multiple ways to direct their attention, like looking at the object, pointing to the object, and moving the object slowly (for example, when saying, “Here is your sweater,” lift the sweater up where the infant can see it and look at it).

### Younger Toddlers around 18 months

Follows another person’s gaze looking back and forth between a conversational partner and an object of shared attention. Uses own gesture and language skills to direct the gaze of others.

Note that a child who is blind may follow other adult cues, such as sound or touch.

#### Examples

An adult who is setting out lunch describes what she is doing by saying, “Here are the plates, and today we are having mashed potatoes.” A child directs their attention to each item as it is being named, frequently looking between the adult and the lunch items.

When an adult asks, “Do you want to hear *Please Baby Please* or *Jamberry*?” and holds up two books, looking at each as she names it, the child looks between the books and points to *Please Baby Please* to indicate preference.

#### In-Practice Strategies

Look back and forth between children and their favorite toy, and ask simple questions or make statements in English and/or the home language to maintain their focus (for example, “*El perrito dice ‘guau.’*” [“The dog says ‘woof.’”]).

## Standard L.LU.1 continued

### Older Toddlers *around 36 months*

Attends to an object described in a conversation between two other speakers and, through only listening, learns to express a new word.

#### Examples

An adult who is showing a child a new toy says, “This is a racetrack. We can put these pieces together and the cars will roll down.” Later, a child who overheard the conversation goes up to the racetrack and says, “It’s the racetrack.”

Says, “Oh, a tamale,” while looking at their own lunch after hearing another child describing the food being served that day to a friend.

Points to a picture of a train on their augmented and alternative communication device while watching two peers playing with a train set.

#### In-Practice Strategies

When talking to toddlers about new objects or concepts, use words to describe the color, texture, size or other descriptive words as well as the name of the object to help build their vocabulary and understanding of the new word in English and/or the home language (for example, when reading a book about trains with the word “locomotive,” say, “‘The locomotive’ is another word for the train engine, and it makes the train move. In the picture it is black and has smoke coming out of the smokestack.”).

### Pre-K3 *around 48 months*

Attends to what others say while interacting with them for an extended period of time, showing understanding by responding with words, phrases, or sentences over several back-and-forth exchanges or by doing a series of actions related to the conversation.

#### Examples

Says, “We’re making a road for trucks!” while playing in the block area. Their playmate picks up a toy excavator and says, “We need a really big truck.”

A child asks, “Where do sheeps go?” while playing with a farm set. An adult asks, “Do they go in the barn?” and the child replies, “I don’t know.”

#### In-Practice Strategies

Engage with children in extended communication in English and/or the home language, with several back-and-forth exchanges, during daily routines and interactions (for example, when children arrive, ask questions about their day so far: “Did you eat breakfast this morning? What foods did you eat?”).



## LANGUAGE AND LITERACY

**Strand** L.LU: Listening and Understanding

**Standard** L.LU.2: Understands and follows directions.

### Infants *around 8 months*

Shows understanding when someone says familiar words related to the immediate situation.

#### Examples

Holds up a toy cat when an adult signs, “Cat” in American Sign Language, the child’s home language.

After an adult asks, “Do you want a bottle?” a child waves their arms and smiles.

Looks toward the bookshelves when an adult asks, “Do you want to read a story?”

#### In-Practice Strategies

Name objects in the child’s environment in English and/or the home language, especially when the child is paying attention to the object (for example, “You are holding your sock, and I have your other sock. Let’s put them on your feet.”).

### Younger Toddlers *around 18 months*

Follows simple one-step instructions relating to the immediate environment.

#### Examples

Hands a ball over when an adult asks, “Can you give me the ball?”

Walks over to an adult who has said, “Come over here.”

Sits to go down the slide when an adult instructs, “Go down on your bottom.”

#### In-Practice Strategies

Demonstrate and talk about simple actions to children in English and/or the home language, and then ask children to try (for example, “I’m putting this flamingo puzzle piece here. Try the parrot puzzle piece in that space.”).



Standard L.LU.2 continued

**Older Toddlers**  
*around 36 months*

Understands simple instructions with more than one part.

**Examples**

A child who is a multilingual learner turns on the faucet, puts soap on their hands, rubs them together, and rinses them off, following an adult's instructions in English with a few key words in their home language.

A child follows the steps when told, "Put on your coat, and then we will go outside."

**In-Practice Strategies**

Ask children to perform related two-step directions, offering, as needed, support in English and/or the home language (for example, "Set the animal food bowl down first, then put your toy animals around it.").

**Pre-K3**  
*around 48 months*

Follows directions with several parts, even if some of the steps refer to something that isn't in the immediate environment.

**Examples**

Follows directions to pack up a bag, such as, "Get your picture from the art table and put it in your backpack."

Follows the instructions of a new charades game, first drawing a card, and then acting like the animal on the card.

**In-Practice Strategies**

Support children in learning more complex multistep routines by offering visual aids, like photos, in addition to verbal instructions in English and/or the home language (for example, "Look at the poster. What do we need before we go outside on a snowy day? I see boots and a hat. What else do you see?").



## LANGUAGE AND LITERACY

**Strand** L.LU: Listening and Understanding

**Standard** **L.LU.3:** Understands increasingly complex sentences and utterances.

### Infants *around 8 months*

Attends to speech, showing recognition of familiar words related to the immediate situation.

#### Examples

Looks up from play in response to hearing, “Daddy is home.”

Looks toward an adult who has said their name.

#### In-Practice Strategies

Talk to infants in English and/or the home language and describe your actions throughout the day (for example, “It’s time to go outside. I’m going to get your hat.”). Repeat key words and respond to infants’ gestures and vocalizations.

### Younger Toddlers *around 18 months*

Attends to longer and more complex speech, showing understanding of an increasing number of words.

#### Examples

Looks up when an adult says, “See the bird in that tree.”

Touches the hat on their head when an adult asks in the child’s home language, “Where is your hat?”

Runs away after hearing an adult say, “It’s time to go inside.”

#### In-Practice Strategies

Describe your own thoughts, feelings, and actions so children can experience language in English and/or the home language (for example, “It makes me happy to dance. Let’s hold hands and jump to the music.”).

## Standard L.LU.3 continued

### Older Toddlers around 36 months

Comprehends simple sentences, phrases, and questions, which are demonstrated through words or actions.

#### Examples

When asked, “What is your favorite story?” a child responds, “*Goodnight Moon*.”

Says in Spanish, “*Escuela*” [“School”] when an adult asks in Spanish, “¿*Dónde está tu hermano?*” [“Where is your brother?”].

When an adult asks a blind child, “Do you want to feel the guitar?” the child comes over and touches the strings.

#### In-Practice Strategies

Talk with children about what they are doing, describe their actions, and ask questions in English and/or the home language (for example, “You just painted a big yellow circle. I wonder if you’ll make another circle. Yes, now you are moving your arm around and around with a green paintbrush.”).

### Pre-K3 around 48 months

Understands longer and more complex sentences and utterances such as *wh*- questions, short stories, or multiple sentences strung together.

#### Examples

Points to the correct picture in a seek-and-find book when asked, “Where is the man who is holding a camera?”

Asks, “Why is the wolf a meanie?” after hearing the story “The Three Little Pigs.”

#### In-Practice Strategies

Engage children in longer conversations. For example, talk about images of children with their families and ask them to tell you a story about the picture in English and/or the home language (“What is happening in this picture? Who was there? What else can you tell me?”).



## LANGUAGE AND LITERACY

**Strand** L.CS: Communicating and Speaking

**Standard** **L.CS.1:** Uses increasingly complex grammar to communicate.

### Infants *around 8 months*

(No indicator)

### Younger Toddlers *around 18 months*

Communicates using simple words or signs, often accompanied by gestures.

#### Examples

When seeing a dog, a child points and says, "Dog!"

A child who is learning American Sign Language points at a ball and signs, "Ball."

Says in Spanish, "*Bebé*" ["Baby"] while rocking a doll.

#### In-Practice Strategies

Extend what children are saying by using complete sentences in English and/or the home language (for example, in response to a child saying, "*Leche*" ["Milk"], say, "*Quieres leche porque tienes hambre.*" ["You want milk because you are hungry."]).

## Standard L.CS.1 continued

**Older Toddlers**  
*around 36 months*

Puts words together into sentences or phrases of two or three words, with the correct use of some grammar rules such as pluralization of regular words, personal pronouns (I, you, he), and regular verb conjugations (for example, I build, he builds, she is building).

**Examples**

Communicates, “I jump big.”

Holds up a toy train and says in their home language, “I have a train.”

Yells, “Garbage truck here!” after seeing it out the window.

**In-Practice Strategies**

Use correct grammar when communicating with children in English and/or the home language by repeating back what a child has said, adding and reordering words to model a complete sentence (for example, in response to “I goed the zoo yesterday,” say, “Oh, you went to the zoo yesterday.”).

**Pre-K3**  
*around 48 months*

Uses more complex grammatical structures, such as using sentences with multiple connected clauses, speaking about the past and future, and using contractions (for example, I’m, don’t).

**Examples**

Describes their day and says, “At nap time I wasn’t tired. But I had to sit quietly for a lot of minutes.”

Says to an adult, while painting, “You know I’m gonna take a picture of this. And send it to you. Because it’s so pretty.”

**In-Practice Strategies**

Support children in expanding on their thoughts by asking follow-up questions in English and/or the home language (for example, “Why do you think that happened?”).



## LANGUAGE AND LITERACY

**Strand** L.CS: Communicating and Speaking

**Standard** **L.CS.2:** Expresses interests, wants, and needs through nonverbal and increasingly verbal communication.

### Infants *around 8 months*

Communicates wants and needs through vocalizations such as cooing and babbling, facial expressions, and gestures.

#### Examples

Coos when an adult offers a bottle.  
Smiles when a familiar adult comes into sight.  
Laughs at an older child making silly faces.

#### In-Practice Strategies

Describe in a few words in English and/or the home language what you think are children's wants or needs (for example, in the child's home language, say, "Is your diaper wet? Let's go change your diaper.").

### Younger Toddlers *around 18 months*

Communicates interests, wants, and needs through a combination of gestures, signs, vocalizations, or single words.

#### Examples

Points at an empty bottle on the counter and says, "More," to request more milk.  
Repeats, "No more," in their home language at the end of a meal.

#### In-Practice Strategies

Help children express their interests, wants, and needs through repeating their words and expanding with additional information or ideas in English and/or the home language (for example, "Book? Yes, you are signing 'book.' Let's pick out a book and read it together.").

## Standard L.CS.2 continued

### Older Toddlers around 36 months

Combines words or signs into phrases of two or three words to express interests, wants, and needs. (A child who is learning more than one language may combine words across languages.)

#### Examples

A child learning American Sign Language signs “blanket look-for” to ask for help finding their blanket for naptime.

After finishing their snack, a child requests, “More cheese.” A child who is learning Spanish and English says, “More *queso*.”

#### In-Practice Strategies

Help children express their interests, wants, and needs by expanding on their language and offering choices in English and/or the home language (for example, “¿Quieres el *queso naranja* o el *queso blanco*?” [“Do you want the orange cheese or the white cheese stick?”]).

### Pre-K3 around 48 months

Uses sentences combining three or more words to express interests, wants, and needs. (A child who is learning more than one language may combine words across languages.)

#### Examples

Says in Spanish, “*Dame la* modeling clay please” [“Give me the modeling clay please”] to a bilingual friend while playing with modeling clay.

Requests a snack using the short sentence, “I want more crackers.”

Yells, “But I was still using that,” to a peer who has taken a shovel in the sandbox.

#### In-Practice Strategies

Help children express their interests, wants, and needs by modeling how to ask for something in English and/or the home language (for example, during group activities say, “I see you reaching for the blue marker, but someone else is using it. You can ask, ‘Can I have a turn?’”).





## LANGUAGE AND LITERACY

**Strand** L.CS: Communicating and Speaking

**Standard L.CS.3:** Develops the capacity to speak or sign clearly.

### Infants *around 8 months*

(No indicator)

### Younger Toddlers *around 18 months*

Says or signs at least a few words or approximation of words that familiar adults understand.

#### Examples

Says “*bubu*,” which is understood by familiar adults to mean “bottle” but is indistinguishable from babbling to an unfamiliar adult.

Says “hi” to greet everyone in the morning.

Says “*mo mo*,” an approximation of “meow,” and points at a picture of a cat in a book.

#### In-Practice Strategies

Describe your actions aloud so children can experience language as you perform tasks, using words and phrases in English and/or the home language. Pause to invite children to respond (for example, “I’m going to set out snack plates. I hear you saying ‘grape.’ Once I finish putting out the plates for everyone, I will give you your grapes.”).

Standard L.CS.3 continued

**Older Toddlers**  
*around 36 months*

Speaks or signs more clearly so that familiar adults understand most of the child’s words, but speech may contain pronunciation errors.

**Examples**

Says, “Look at the *bayoons*,” while watching balloons fly. A familiar adult responds, “I see the balloons.”

Tells a peer in Spanish, “*Esta es mi pipina [piscina]*,” [“This is my pool.”] while playing in a wading pool on a hot day.

Says, “And I’m a fighter-fighter” while playing firefighter with a peer.

**In-Practice Strategies**

Respond to children’s communication by repeating key words with the correct pronunciation and adding details in English and/or the home language (for example, “Look at your tall tower. It looks like you used one, two, three, four, five blocks.”).

**Pre-K3**  
*around 48 months*

Speaks or signs clearly enough that most words are free of errors and can be understood both by familiar and unfamiliar adults.

**Examples**

Says, “I’m stuck,” to a classroom visitor blocking their wheelchair. The adult understands and they move out of the way.

Asks a passing unfamiliar adult, “What’s your dog’s name?” and the adult responds by saying the dog’s name.

**In-Practice Strategies**

Create opportunities for children to engage in conversation across different contexts (for example, when visiting the library, encourage children to ask the librarian for help finding a book on a favorite topic).



## LANGUAGE AND LITERACY

**Strand** L.CS: Communicating and Speaking

**Standard** **L.CS.4:** Learns to engage in conversation.

### Infants *around 8 months*

Coos and babbles to an adult in response to spoken language, taking turns similar to a conversation.

#### Examples

Makes a sound in response to an adult saying, “Good morning.” The child continues to respond with a sound each time the adult speaks, over several back and forth turns.

A child who is learning American Sign Language babbles by moving their hands in sign-like shapes, and then looks to an adult’s hands for a response.

#### In-Practice Strategies

Sing a song or rhyme in English and/or the home language while making simple movements that infants can attend to, and, as they continue to develop, learn to do (for example, slowly wave your hands as you sing “The Wheels on the Bus”).

### Younger Toddlers *around 18 months*

Babbles and uses early vocabulary to respond to questions from adults.

#### Examples

Responds, “Ba,” when an adult asks, “Do you want to play with the ball or the shovel?”

Says, “Uh-oh,” while playing with a train after it falls off the track. When an adult asks, “What happened?” the child replies, “Go boom.”

Says, “All gone,” after dropping a spoon from their high chair. When an adult asks, “Did you drop your spoon?” the child points down and says, “More.”

#### In-Practice Strategies

Talk to children throughout the day about what you are doing and things you observe, both initiating conversations and expanding on child communication in English and/or the home language (for example, “You ate some of your lunch using your G-tube [gastrostomy feeding tube], and you are also eating yogurt with a spoon. Who else has yogurt today?”).

## Standard L.CS.4 continued

### Older Toddlers around 36 months

Engages in conversations with multiple back and forth turns.

#### Examples

Says simple phrases like, “Look, the garbage truck” or, “What’s that?” over several conversational turns in a conversation with an adult about a garbage truck driving past the fence.

Lies down and pretends to sleep during play. A peer says, “Hey, wake up,” and the child replies, “No, I am sleeping.” The peer replies, “Oh, sleeping,” and the child stands up and says, “Hooray, I’m awake!”

#### In-Practice Strategies

Ask children to share their own experiences both in the early childhood program and with their family or community, using follow-up questions to model conversational turn taking in English and/or the home language (for example, “Can you tell me about the party your family had at the park? What did you do? You danced? After dancing, did you go down the slide?”).

### Pre-K3 around 48 months

Initiates, continues, or extends conversations with others, using meaningful and appropriate responses and questions.

#### Examples

Two children pretend to be soccer announcers in Spanish, their home language, while playing with a ball outside. One yells in Spanish, “*Ve a la derecha.*” [“Go to the right.”]. The other kicks the ball and yells in Spanish, “*¡Gol!*” (“Goal!”). The first child responds, “*¡Jugando así no hay quien nos gane!*” [“Playing like that, there’s no one who can beat us!”].

After a friend says, “Nico is a dragon,” Nico responds, “No, I don’t want to be a dragon!” The friend replies, “Oh, okay. What do you want to pretend?” Nico says, “I’m the builder. I made this whole castle.”

Uses a communication board to converse with an adult after staying home sick the previous day. When the adult says, “I heard you weren’t feeling well yesterday,” the child nods and points to the image for “sick.” The adult responds, “Oh, no. Did you have to stay in bed?” The child shakes their head, points to themselves, and then points to the image for “doctor.” The adult asks the child how they are feeling today, and the child points to the thumbs-up image on the communication board to indicate, “Good.”

#### In-Practice Strategies

Support children to take turns at group gatherings to engage in discussions with others in English and/or the home language, such as how they get to the early childhood program or what they help with at the grocery store (for example, “How did your family get to school today? What sounds did you hear on the bus?”).



## LANGUAGE AND LITERACY

**Strand** L.VO: Vocabulary

**Standard L.VO.1:** Understands an increasing number and variety of words heard in familiar environments, play, and routines.

### Infants *around 8 months*

Understands a small number of words or signs for familiar people or objects, demonstrating understanding by looking at the person or object when named.

#### Examples

Looks around for their bottle when an adult signs, “It’s time for a bottle.”

Looks in the direction of the door when an adult says, “Mommy is here!”

#### In-Practice Strategies

Connect words with real-life people or objects by naming them while pointing or bringing them into infants’ fields of vision (for example, by holding their bottle up to them and saying in English and/or the home language, “Here’s your bottle!”).

### Younger Toddlers *around 18 months*

Understands an increasing number of words that identify familiar people or objects used in conversation with others focused on the current place and time. Demonstrates understanding by looking, gesturing, or responding with an appropriate action, sign, or verbal response.

#### Examples

Picks up their cup and holds it out to an adult when an adult asks in Spanish, “¿Eso es tu vaso?” [“Is that your cup?”].

Hugs their blanket more tightly when an adult says, “It’s time for a nap, and you have your blanket!” in the child’s home language, patting the blanket.

Lifts their arms up to ask to be picked up when an adult says in the child’s home language, “Would you like to see out the window?”

#### In-Practice Strategies

Throughout the day, describe what is in the environment or what you are doing. Keep sentences relatively simple, but use a variety of vocabulary in English and/or the home language (for example, “*Estás usando una pala. Es divertido cavar en la arena, ¿no?*” [“You’re using a shovel. It’s fun to dig in the sand, isn’t it?”]).

## Standard L.VO.1 continued

### Older Toddlers *around 36 months*

Understands an increasing number of words used in simple sentences during conversation and play with others. Demonstrates understanding by looking, gesturing, or responding with an appropriate action, sign, or verbal response.

#### Examples

When an adult suggests, “Let’s do a puzzle,” a child responds by going to get a puzzle from the toy shelf.

Shakes their head to indicate “no” when an adult asks the child in the child’s home language, “Do you like spicy peppers?”

When a friend says, “I want to play with the clay,” the child responds, “Me, too” and runs to get the clay from the shelf.

#### In-Practice Strategies

Offer pretend play ideas that align with children’s interests and can increase their vocabularies in English and/or the home language (for example, “I see that you’re mixing something in that pot. Is it soup? What kind of noodles will you add? We have udon, spaghetti, and egg noodles.”).

### Pre-K3 *around 48 months*

Understands vocabulary words describing familiar actions, ideas, and emotions, as well as words used to categorize objects (such as fruits or animals).

Understands increasingly longer sentences containing a variety of words. Demonstrates understanding by looking, gesturing, or responding with an appropriate action, sign, or verbal response.

#### Examples

While making a craft, an adult asks, “Which color is the same as a ladybug?” The child looks at pieces of colored paper on the table, selects the red one, and holds it up.

When the child is playing with another child who is crying, an adult says, “I think he’s feeling upset because he lost his favorite toy.” The child nods and responds, “Yeah, he misses his toy.”

#### In-Practice Strategies

During play and daily routines, use a wide variety of words, including vocabulary to describe emotions, characteristics, objects, and actions. Talk about how objects or concepts fit into broader categories (for example, fruits, actions, feelings) so that children understand how the words relate to each other (for example, during mealtime, you might say, “My favorite kind of fruit is strawberries. Grapes are another fruit that I like. What are your favorite fruits?”).



## LANGUAGE AND LITERACY

**Strand** L.VO: Vocabulary

**Standard L.VO.2:** Uses an increasing number and variety of words when communicating with others.

### Infants *around 8 months*

Babbles with combinations of consonant and vowel sounds, mimicking the sounds of the language or languages the child experiences in the environment.

Note that a child who is deaf or hard of hearing may produce sounds during early vocal play, but may not produce clear syllables such as “*ba-ba-ba*” around 8 months of age. A child who is learning American Sign Language will also babble by moving their hands in sign-like shapes.

#### Examples

Sits in a crib saying, “*Baa baa baa daa*,” after waking up from a nap.

Says, “*Maa maa maa*” while getting their diaper changed.

#### In-Practice Strategies

Keep physically close to infants while you speak or sign so the infants can attend to and touch your mouth, face, and hands.

### Younger Toddlers *around 18 months*

Says or signs a few words to communicate about familiar objects or people.

#### Examples

Says, “Papa” when looking at their father.

Replies, “No” in their home language in response to a question.

#### In-Practice Strategies

Respond to and expand on children’s communication in English and/or the home language. For example, if a child signs, “Ball,” you might reply, “Yes, I see you have the ball!” to reinforce their vocabulary.



Standard L.VO.2 continued

**Older Toddlers**  
*around 36 months*

Uses an increasing number of words or signs to convey thoughts, feelings, or information, and occasionally speaks about personal past.

**Examples**

Says in Spanish, “*No quiero* carrots.” [“I don’t want carrots.”].

Communicates about a visit to the park that morning, telling the adult, “There was geese.”

After falling on the playground, cries and tells an adult in their home language, “I hurt my knee.”

**In-Practice Strategies**

Read books together with children in English and/or the home language, pausing to ask questions about the book.

**Pre-K3**  
*around 48 months*

Speaks or signs in multi-word phrases or sentences, using nouns, verbs, and adjectives.

**Examples**

A child learning Spanish and English says, “*Me gusta* yellow cake. *Voy a hacer* a cake. It’s yummy. *Uso una cuchara enorme*. You need eggs.” [“I like yellow cake. I’m going to make a cake. It’s yummy. I use a big spoon. You need eggs.”].

Tells an adult in their home language, “My little sister got scared. One of the dogs was really big, like a wolf. But I wasn’t scared. I always help her.”

**In-Practice Strategies**

Use a variety of descriptive words in English and/or the home language to model vocabulary (for example, expand on a statement such as “You’re doing great!” by saying, “You’re painting very carefully!”).



## LANGUAGE AND LITERACY

**Strand** L.VO: Vocabulary

**Standard** **L.VO.3:** Uses an increasing number of words to describe people and objects in the environment.

### Infants around 8 months

Babbles with combinations of consonant and vowel sounds, mimicking the sounds of the language or languages the child experiences in the environment.

Note that both hearing and Deaf children typically produce sounds during early vocal play. However, by 8 months of age, many hearing children will produce clear syllables such as “*ba-ba-ba*,” while this indicator appears later, or not at all, in children who are Deaf or hard of hearing.

#### Examples

Sits in a crib saying, “*Baa baa baa daa*,” after waking up from a nap.

Says, “*Maa maa maa*” while getting their diaper changed.

#### In-Practice Strategies

Use a variety of words in English and/or the home language to describe characteristics of an object that infants can explore with their senses (such as what it looks like, how it sounds, or how it feels). Communicate about the object in English and/or the home language and make sure the infant can attend to the items and can choose to hold them (for example, “This koala has such soft gray fur. See how soft the koala feels?”).

### Younger Toddlers around 18 months

Uses single words to refer to objects or people in the environment, often using a word they already know to refer to a similar object.

#### Examples

Refers to all plants as “flower” (or an approximation of the word, such as “*wawa*”).

Says, “*Bibi*” while drinking a bottle, using the word their family calls a bottle in Spanish.

#### In-Practice Strategies

Point to objects in the environment and their characteristics (for example, “*Llevas una camisa azul hoy*.” [“You’re wearing a blue shirt today.”]).

## Standard L.VO.3 continued

### Older Toddlers around 36 months

Uses simple descriptive words to talk about the characteristics of people or objects, such as size or color.

#### Examples

A child learning Spanish and English points at a German Shepherd and says, “*Es un big dog.*” [“It’s a big dog.”].

Communicates, “I want blue,” while reaching for a blue crayon from a pile in the middle of the table.

#### In-Practice Strategies

Describe similarities and differences between people or objects in English and/or the home language to reinforce descriptive language. For example, describe the plates on the lunch table (“*Tenemos un plato rojo, un plato azul, y un plato verde.*” [“We have a red plate, a blue plate, and a green plate.”]), or point out characteristics of flowers while outside (“This sunflower is so big! It looks really different from the small flowers over here, don’t you think?”).

### Pre-K3 around 48 months

Uses an increasingly wide variety of words to describe, with greater specificity, different characteristics of people or objects (for example, tall, long, hard, soft, fast, slow).

#### Examples

A child who is sensitive to noise covers their ears and then uses a communication board to communicate “loud” when the group is banging on drums together.

Rolls a piece of modeling clay and says, “*Hice una culebra muy larga.*” [“I made a really long snake.”].

Communicates, “Watch me! I’m really really fast!” before running as fast as they can.

#### In-Practice Strategies

Provide a variety of materials with different characteristics (for example, art materials, toys of various shapes, sizes, and purposes). Throughout the day, communicate in English and/or the home language about the materials, and invite children to communicate about what they notice.



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.1:** Interacts with books, developing an understanding of book-handling behaviors and print conventions.

### Infants *around 8 months*

Demonstrates interest in exploring and looking at picture books with an adult.

#### Examples

Touches or chews books during story time.

Pats the page of a book while an adult turns the page.

Attends while an adult reads to them in their home language.

#### In-Practice Strategies

Read books with texture, flaps, or other interactive and tactile features children can explore.

### Younger Toddlers *around 18 months*

Interacts with books or pictures by touching them or turning pages, or naming or pointing to familiar objects and people.

#### Examples

Turns the pages of a book during reading time with an adult. Turns multiple pages at once, both front to back and back to front.

Points to a picture of a dog in a book and says, “Dog” in their home language.

Lifts the flap of an interactive book.

#### In-Practice Strategies

Encourage children to “help” while you read a book together in English and/or the home language (for example, “Would you like to turn the page?”).

## Standard L.EL.1 continued

### Older Toddlers *around 36 months*

Demonstrates an understanding of book-handling behaviors such as speaking or signing while turning pages as if reading.

#### Examples

Pretends to read a book by turning pages and saying or signing words in their home language, even if those words are not on the printed pages.

Lies on a cot during nap time, turning and looking at the pages of a book.

#### In-Practice Strategies

Have a small, comfortable reading area where children can explore books on their own.

### Pre-K3 *around 48 months*

Demonstrates an understanding of basic print conventions and book-handling behaviors, such as looking at the title of a book, orienting a book, and turning the pages in a single direction.

#### Examples

Orients a book right-side up, then turns the pages while pretending to read.

Says in their home language the title of a familiar book while pointing to the title on the front cover.

Turns pages front to back while pretending to read. The orientation of the pages and the direction of the page turning may differ based on the child's home language.

#### In-Practice Strategies

Point to title of a book on the front cover (for example, "*Este libro se llama...*" ["This book is called..."]) before reading aloud in English and/or the home language.



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.2:** Demonstrates interest and attention to language and structure used in books, rhymes, and storytelling.

### Infants *around 8 months*

Attends to books, pictures, or rhymes recited by an adult.

#### Examples

Touches pictures in a book when being read to by an adult.

Watches an adult's face while the adult recites nursery rhymes in the child's home language.

#### In-Practice Strategies

Read, rhyme, or tell stories that have a simple repeating structure and predictable, exciting moments, such as "Open, shut them" in English and/or the home language. Vary your speed and pitch and pause between lines to observe infants' responses.

### Younger Toddlers *around 18 months*

Participates actively in storytelling, reading, or singing by pointing at pictures and saying, signing, or repeating one or two of the words.

#### Examples

Pats a picture of a nose on a person's face in a book about body parts when the adult reads "nose" in the child's home language.

Communicates one or two familiar words in their home language, such as "ball" or "flower," when they see pictures of those objects in a board book.

Touches a photo of their family at the beach, prompting an adult to tell a story describing the event in the photo.

#### In-Practice Strategies

Invite children to participate in story time in English and/or the home language by asking them to point to a picture, answer questions, or do actions shown in the book (for example, "*¿Que dice el león?*" ["What does the lion say?"] while reading a page about a lion).

## Standard L.EL.2 continued

### Older Toddlers around 36 months

Says or signs, with modeling and support, repetitive phrases or refrains from favorite stories, songs, or rhymes.

#### Examples

Sings with an adult in Spanish, “*¡Ay, que vaca tan salada! Tolón, tolón, tolón, tolón,*” the words of a Spanish-language nursery rhyme.

A child with a speech delay makes “shh shh” sounds and swishes their hands during the “swish-swash” verse in “Going on a Bear Hunt.”

When an adult sings “The Wheels on the Bus,” a child who is familiar with the song sings, “Round and round, round and round,” at the appropriate time.

#### In-Practice Strategies

Read books, tell stories, or sing rhymes that have a predictable, repetitive structure in English and/or the home language. Use pauses and gestures to encourage children to join in. For example, when singing “Old McDonald,” pause to allow children fill in phrases like “E-I-E-I-O.”

### Pre-K3 around 48 months

Says or signs a few familiar words, phrases, or repetitive refrains from favorite stories, songs, or rhymes, often imitating the intonation of adult readers or speakers.

#### Examples

Sings along as an adult repeats the phrases in a nursery rhyme in the child’s home language.

Crawls into the space under a small table and communicates in Spanish, “*Esto debe ser una cueva,*” [“This must be a cave,”], a line from the book *Un Bolsillo Para Corduroy* [*A Pocket for Corduroy*], which is one of the child’s favorite books.

Pretends to read a few pages of a familiar book to a younger child, reciting, “I do not like green eggs and ham. I do not like them, Sam I Am,” using the same “angry” intonation they have heard an adult use when reading that book.

#### In-Practice Strategies

As you read, rhyme, sing, or tell stories in English and/or the home language, pause at predictable places and ask children to fill in the words or lyrics. Ask children for plot ideas as you tell stories. Use the tune of children’s favorite songs and create new versions of the songs by switching out some or all of the words.





## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.3:** Understands meaning communicated through stories, pictures, and informational books.

### Infants *around 8 months*

Attends to pictures and drawings while being read to by an adult.

#### Examples

Looks at a picture book of animals while an adult says or signs the names of the animals in the child's home language.

Rubs the textured picture in a touch-and-feel book while an adult reads in the child's home language.

#### In-Practice Strategies

As you read, rhyme, or tell simple stories to infants in English and/or the home language, add exaggerated sounds effects, facial expressions, gestures, and movements. You might bounce the infant on your knee to demonstrate a "horse ride," tap their feet quickly to show "running fast," or make your hand "crawl" on their belly like a ladybug.

### Younger Toddlers *around 18 months*

Participates actively in storytelling, reading, or singing by pointing at pictures and saying, signing, or repeating one or two words.

#### Examples

Points to a picture of a cat in a book when the adult reads the word "cat" in the child's home language.

Communicates one or two familiar words in their home language, such as "coche" ["car"] in Spanish or "flower," from a simple board book.

Extends their fingers and "crawls" them up the adult's arm like a spider when an adult tells a folk tale about a spider, mimicking a motion the adult has done when telling the story previously.

#### In-Practice Strategies

Use props to enrich storytelling, singing, and book reading, such as puppets or crafts related to the book (for example, felt cut-outs of ducks that children can remove from a sticky board during the song "Five Little Ducks").

## Standard L.EL.3 continued

### Older Toddlers around 36 months

Demonstrates understanding of a book's meaning after reading. (May relate the book to something in their own life or use the new vocabulary learned from a book.)

#### Examples

Walks to a pretend play area and picks up a fire helmet and vest while experiencing a storybook about firefighters.

After reading a book about emotions, when an adult asks in the child's home language, "How does your heart feel today?" uses a card communication system to communicate "brave," which is one of the feelings named in the book.

After experiencing a storybook set in a castle, walks up to a structure of blocks a friend has built and communicates in their home language that the blocks look like a castle.

#### In-Practice Strategies

As you read, ask questions in English and/or the home language that children can answer with a few words or gestures (for example, "What swims in the ocean?")

### Pre-K3 around 48 months

Retells, reenacts, or draws events from a story. Names, describes, plays, or creates art to demonstrate something learned in an informational text.

#### Examples

After an adult reads a book about bears, the child engages in pretend play with friends pretending to be a bear in the forest.

After an adult has read a familiar story aloud in the child's home language, the child pretends to read the story to a group of stuffed animals, retelling some of the events out of order.

After the group has read a book about kindness, they take turns naming ways to be kind. A child communicates in their home language, "Share with a friend" when it is their turn, echoing a page from the book.

#### In-Practice Strategies

Create play spaces and activities related to children's favorite books, stories, and songs. You can design specific learning experiences around books you have read together (for example, after reading a book about a whale, create a giant whale together out of paper).



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard L.EL.4:** Understands that printed words, symbols, or pictures convey meaning and develops an increasing understanding of the meaning carried by each.

### Infants *around 8 months*

Attends to pictures and drawings in books while being read to by an adult.

#### Examples

Looks at a picture book of animals while an adult says or signs the names of the animals in the child's home language.

Rubs the textured picture of a touch-and-feel book while an adult reads.

#### In-Practice Strategies

While looking at a picture book together, point to the pictures and describe them in English and/or the home language.

### Younger Toddlers *around 18 months*

Points at, says, or signs the names of familiar people, animals, or objects in a picture.

#### Examples

Says, "Cocoa!" when seeing a picture of their dog, Cocoa.

Points to a family member's face in a photo, then turns and points to that family member standing beside them.

Communicates, "Duck" in their home language when seeing a picture of a duck in a book.

#### In-Practice Strategies

Communicate about what you see in the picture and how it relates to the story or information being read in English and/or the home language.

Standard L.EL.4 continued

**Older Toddlers**  
*around 36 months*

Shows some understanding of the distinction between pictures and text, words, or letters.

**Examples**

Groups alphabet refrigerator magnets together, separate from magnets with pictures, and identifies the letters as “ABCs” or “letters,” even if they don’t yet say the names of the letters.

Communicates in their home language, “You’re writing,” when they see an adult writing.

Points to words in a book and begins singing the alphabet song in their home language.

**In-Practice Strategies**

Create labels for areas, drawers, shelves, and objects in English and/or the home language that contain both writing and pictures.

**Pre-K3**  
*around 48 months*

Demonstrates understanding that letters or other linguistic characters (for example, Chinese hanzi) are a distinct kind of symbol that can be read to convey meaning.

**Examples**

Points to the text in a book about animals and communicates in their home language, “That says ‘tiger,’” even if they are incorrect.

Asks in their home language, “What does this say?” while gesturing to text written on a sign.

Using their home language, asks an adult to write “car” under a picture of a car they have just drawn.

**In-Practice Strategies**

Support children in creating their own stories in English and/or the home language by encouraging them to dictate a short story to you while you write it down. Allow the child to add their own drawings or writing to the “book.”



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.5:** Develops ability to recognize highly familiar text and a few letters.

### **Infants** *around 8 months*

(No indicator)

### **Younger Toddlers** *around 18 months*

(No indicator)

Standard L.EL.5 continued

**Older Toddlers**  
*around 36 months*

Recognizes, with modeling and support, highly familiar print in the environment (for example, their own name, product logos, STOP signs).

**Examples**  
  
Recognizes their own name printed inside their lunch box, with adult support.  
  
Points out a stop sign on a walk outside.

**In-Practice Strategies**  
  
Label items (such as cups, carpet squares, cubbies, or artwork) with children’s names whenever possible, and point out their name when handing them the item.

**Pre-K3**  
*around 48 months*

Names a few letters of the alphabet with adult modeling and support.

**Examples**  
  
Points to their name and calls out the first letter after an adult has said the letters of their name out loud.  
  
While reading a book together, an adult points to the title and names one of the letters, then asks in the child’s home language, “What letters do you see?” The child points to one or two letters they are familiar with and names them in their home language.  
  
While opening a drawer labeled “SCISSORS,” they point to each “S” and say, “S. S. S.,” in Spanish, their home language (pronouncing the letter “ese, ese, ese, ese”).

**In-Practice Strategies**  
  
Name in English and/or the home language the letters that you see in short pieces of text, such as signs, book titles, name tags, or labels.



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.6:** Develops an understanding of the sounds that make up words (phonological awareness).

### **Infants** *around 8 months*

(No indicator)

### **Younger Toddlers** *around 18 months*

(No indicator)



Standard L.EL.6 continued

Older Toddlers around 36 months	Pre-K3 around 48 months
(No indicator)	<p>Recognizes similarities in the sounds of words, such as noticing rhyming sounds or matching words that have the same first sound, with adult support.</p>
	<p><b>Examples</b></p> <p>Points to a cup after an adult holds up a toy car and asks, “Can you find something that starts with the same sound as ‘car’?”</p> <p>Participates in reciting the rhymes along with a group when an adult reads a familiar book with rhyming verses in English and/or the home language.</p> <p>Stomps on the ground at the end of each rhyming verse while an adult emphasizes the rhyming words as they sing or chant along with a group in English and/or the home language.</p>
	<p><b>In-Practice Strategies</b></p> <p>When teaching children about the sounds that make up words, exaggerate the sounds so that children can recognize their components (for example, you might say, “Mmmateo and Mmmiranda both start with an ‘mmm’ sound!”). Use gesture and movement to emphasize word sounds, such as bouncing when rhyming sounds occur.</p>



## LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.7:** Draws or writes marks with increasing control.

### Infants *around 8 months*

(No indicator)

### Younger Toddlers *around 18 months*

Makes marks or uncontrolled scribbles on paper using a full-fist grasp.

#### Examples

Scribbles with a large palm-grasp crayon.

Experiments with dots and lines by banging a crayon on a piece of paper and then making wide scribbles on top of the dotted marks.

Holds a paintbrush in their fist, flattening the bristles on a piece of paper as they make uncontrolled movements across the paper.

#### In-Practice Strategies

Provide materials such as large sheets of paper, easels with paper, thick crayons, markers, and washable paint. Support children in experimenting with art as they use big movements and hold writing utensils.

## Standard L.EL.7 continued

### Older Toddlers *around 36 months*

Scribbles with greater control and draws lines, circle-like shapes, or other deliberate marks. The child grasps the writing tool using all five fingers pointed downward toward the tip of the utensil and uses whole-arm movements.

#### Examples

Draws a wobbly approximation of a circle.

Uses a marker with an adaptive grip assist to draw lines going across an easel.

Holds a stick with all five fingers and uses it to make spirals in sand.

#### In-Practice Strategies

Provide a variety of materials and spaces for writing and drawing (for example, children can use crayons and paper on a table, draw with chalk on a sidewalk, trace with chopsticks in shaving foam, or use dot markers at an upright easel).

Modify drawing and writing tools with grip assists when needed to enable all children to participate.

### Pre-K3 *around 48 months*

Produces or copies lines or approximations of letters or characters. Their letters or characters may not be recognizable (for example, may appear as squiggles). With adult support, the child uses a modified three- or four-finger grasp near the tip of the writing tool and uses forearm movements.

#### Examples

Uses sidewalk chalk to produce writing-like marks and explains that it is their name.

Looks at a friend's name printed over their cubby and attempts to copy the letters one by one, producing one or two letters recognizable to an adult who is familiar with the child's name.

Produces blocky shapes resembling approximations of Chinese characters, then points to them and says words in Mandarin.

#### In-Practice Strategies

Encourage children to try to write their own names on their artwork. Provide additional support by writing their names on top for them to copy, spelling their names letter by letter, or demonstrating how to write certain letters. Be aware that many children will only produce approximate shapes.



# LANGUAGE AND LITERACY

**Strand** L.EL: Early Literacy

**Standard** **L.EL.8:** Makes marks or scribbles on paper with the intention to convey meaning.

## Infants *around 8 months*

(No indicator)

## Younger Toddlers *around 18 months*

(No indicator)

## Standard L.EL.8 continued

### Older Toddlers *around 36 months*

Makes marks intended to represent a person, object, concept, or letters/numbers, even if the image produced is not recognizable to an adult.

#### Examples

Produces strokes of paint and communicates that it is a dog.

Makes unrecognizable squiggles with a piece of chalk. Points to the marks and says their own name, indicating that the marks are meant to be their name.

When an adult asks, “Will you draw me a picture of a flower?” the child nods, then picks up a crayon and draws a series of lines on a piece of paper.

#### In-Practice Strategies

Model writing for children as part of your daily activities so they begin to understand how their thoughts and ideas can be represented in writing. For example, while children watch, write the title of a group artwork (for example, “OUR FAMILIES”) at the top of a large scroll of paper at the start of the project, or write down children’s descriptions of their own artwork to share with their families at pickup time.

### Pre-K3 *around 48 months*

Uses drawings and early attempts at writing alphabet letters along with an explanation to convey meaning, demonstrating an understanding of the difference between the drawings and letters.

#### Examples

Produces writing-like marks on an easel and explains that it is their name.

Draws a picture resembling a tree, then writes a series of letter-like marks underneath and communicates in their home language, “Tree” while pointing to the marks.

Writes lines resembling letters across a page and communicates in their home language that they are writing a card for their grandmother.

#### In-Practice Strategies

Provide materials for children to incorporate writing into their pretend play, such as clipboards with paper that can be used to “write” restaurant menus or doctor’s office charts.



## EARLY COGNITION AND STEAM

Early Cognition and Science, Technology, Engineering, Arts, and Mathematics (STEAM) describes the knowledge and skills children develop as they explore, reason, and express their understanding of the world. From the moment they are born, children use their senses to learn about their environment. As they develop, young children learn to rely on their memory to understand new information and make connections to past experiences.<sup>46</sup> They also imitate what they experience and explore ideas through symbolic activities like pretend play.<sup>47</sup> Through their explorations, young children also increasingly understand the characteristics of objects and people.<sup>48</sup> For example, children observe and experiment with objects in their environment, like dropping a ball to see how it bounces or turning a light switch on and off. They also learn about cause and effect and about spatial and mathematical relationships.<sup>49</sup> Young children explore their creativity and communicate and represent their discoveries and insights through various means of arts expression. These cognitive skills are the building blocks for increasingly complex skills in STEAM in preschool and elementary school.

Children may differ in how they develop the cognitive skills, behaviors, and concepts described in this domain. Many factors affect children's cognitive development. These factors include their early experiences; cultures; language backgrounds; and individual characteristics, such as temperament. To design high-quality learning experiences that recognize every child's strengths, it is important to consider children's diverse experiences and prior knowledge.

# EARLY COGNITION AND STEAM STRANDS

The Early Cognition and STEAM domain includes the following strands:

- General Cognitive Development
- Science, Technology, and Engineering
- Mathematics
- Arts

## GENERAL COGNITIVE DEVELOPMENT

This strand describes general cognitive skills and includes two important components: children's memory development and their capacity for symbolic representation.

Memory is important for children's ability to think, learn language, develop a sense of self, and solve problems. The standards on memory describe children's ability to remember information over a longer period of time with more detail.<sup>50</sup> They also describe children's ability to recognize familiar people and objects, to remember how to perform multiple steps in a routine, and to anticipate familiar actions or routines.<sup>51</sup>

Symbolic representation describes a person's ability to use a symbol (for example, an object, word, drawing, or gesture) to represent something else (for example, another object, an idea, or an action). Imitation and symbolic representation are important for children's learning, creativity, and imagination. In the first year of life, infants imitate the actions of others.<sup>52</sup> As children grow older, they begin to engage in symbolic play using objects, sounds, and gestures to represent other objects.<sup>53</sup> For example, children may pretend that a block is a phone. The standards on imitation and symbolic representation describe how children imitate other people's actions. They also describe children's developing understanding that certain objects or actions can represent other objects or actions.<sup>54</sup>

## SCIENCE, TECHNOLOGY, AND ENGINEERING

Children are born curious to discover the world around them. Through exploration and discovery, they learn about people, objects, and events.<sup>55</sup> They begin to understand how living and nonliving things work. The Science, Technology, and Engineering strand describes how children seek information through asking questions and investigate physical objects and materials using trial and error.<sup>56</sup> It includes children's developing understanding of cause and effect and their ability to predict the results of actions and events.<sup>57</sup> This strand also describes how children learn about the characteristics of plants and animals; earth materials; the weather; and objects in the sky, such as the sun, moon, stars, and clouds.

As soon as children start interacting with objects and people, they also develop the ability to reason about situations and

solve problems.<sup>58</sup> Infants perform simple actions to reach immediate goals and solve simple problems.<sup>59</sup> As children grow older, they persist to solve increasingly complex problems or achieve goals that consist of multiple steps.<sup>60</sup> The Science, Technology, and Engineering strand describes how children engage in intentional actions using different approaches and tools to achieve goals or solve problems.

## MATHEMATICS

From the moment they are born, infants begin to explore math concepts through everyday experiences and play. For example, infants will notice the number, shape, and size of different objects they are playing with.<sup>61</sup> As children grow older, they use words to describe the numbers, shapes, and sizes of objects.<sup>62</sup> They also develop skills such as comparing, ordering, and patterning.<sup>63</sup> The Mathematics strand includes children's developing understanding of numerical and spatial relationships. This strand also describes children's ability to recognize shapes; to compare, sort, and create patterns; and to understand basic measurement concepts.<sup>64</sup>

## ARTS

Children explore their creativity and expression by engaging with the arts through play.<sup>65</sup> Visual art (such as creating drawings, paintings, collages, and sculptures), music (such as singing, instrumental music, and dance), and dramatic art (such as role-play) also support children's development in other domains and help children communicate their ideas through different modalities. For example, participating in the arts helps children learn to manage their emotions and develop executive functioning skills.<sup>66</sup> Children can use their arts skills to represent their science and mathematics understanding. Young infants observe colors, textures, and sounds. As they grow older, they develop the ability to engage in the arts in basic ways, such as finger painting, scribbling, singing, making sounds with instruments and instrument-like objects, responding to music through movement, and role-playing. Toddlers and preschoolers continue to explore the arts as their fine motor skills and social and emotional abilities become more advanced. This strand describes how children engage with visual art, music, and role-play. It emphasizes the importance of focusing on the process of engaging with art rather than the end result.





## EARLY COGNITION AND STEAM

# INCLUSIVE STANDARDS FOR ALL CHILDREN

## CHILDREN WITH DISABILITIES

In supporting children with disabilities in the Early Cognition and STEAM domain, educators need to keep in mind that each child learns at a different pace and in a different way. Children with disabilities may require extra support as they use their senses and bodies to explore or as they describe their scientific investigations. The instruction and learning opportunities young children experience set the stage for their cognitive development and success. For instance, children with speech and language delays may benefit from opportunities to show rather than tell what they observe during scientific investigations. Children with sensory disabilities may engage with the arts differently, experiencing the vibrations of music instead of the sound, or the texture of artwork instead of the colors. Children with physical disabilities impacting their motor skills may need adult support to actively explore their environment, such as bringing materials to them or providing adaptive equipment. Deaf or hard of hearing children may not have the same access and opportunities for experience with language as their peers, resulting in delays in developing math skills such as counting, patterning, and measuring. Engaging families of Deaf children and encouraging communication focused on math exploration in the children's home environment may strengthen their developing language and foster early math skill development. Some children may benefit from specific accommodations or adaptations to fully participate in all learning. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high-quality, individualized education for children with disabilities.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing information, and expressing knowledge.<sup>67</sup> Universal design does not replace individualized support and instruction for children with disabilities, but UDL is a strengths-based approach to supporting the characteristics and abilities of diverse learners. To provide children with diverse ways to practice their early cognition skills and explore STEAM concepts, educators can offer materials that children can explore with different senses; facilitate activities where children participate and represent their knowledge in varied ways, including drawing, building, and moving; and provide children choices about where, what, and for how long they engage with activities and explorations.



## IN-PRACTICE STRATEGIES

Educators, families, and other adults can support children's development and learning in early cognition and STEAM through everyday interactions, routines, and planned learning experiences. Each standard includes one in-practice strategy per age group describing how educators can support children to develop the knowledge and skills described in the standard. Below are some examples of in-practice strategies educators can use to support children's development and learning across the standards in cognition and STEAM:

- Offer objects that vary in quantity, shape, texture, sound, color, and size. Vary the objects children are exposed to frequently and provide these objects in various contexts (for example, inside and outside).
- Invite children to explore and notice objects and living things in their indoor and outdoor environments. Use language to describe what the child is exploring and, if it is age appropriate, encourage children to communicate what they are noticing in English and/or the home language.
- Provide opportunities for children to problem-solve, make predictions, and talk about their observations. Ask open-ended questions, in English and/or the home language, that allow children to express their reasoning.
- Encourage children to notice concepts and practice skills related to STEAM in everyday routines and interactions, such as noticing shapes on a walk outside or counting the number of plates as they are setting up the table for lunch.
- Offer different materials, tools, and opportunities for children to explore ideas, make meaning, and express their understanding through the arts.



## EARLY COGNITION AND STEAM

**Strand** C.GCD: General Cognitive Development

**Standard** **C.GCD.1:** Develops the ability to store, recall, and share information about people, objects, and previous experiences.

### Infants *around 8 months*

Recognizes differences between familiar and unfamiliar people and objects. Shows emerging awareness that familiar people and objects exist even when they are no longer physically present.

#### Examples

Smiles and lifts their hands when they see a familiar adult walk into the room.

Looks for a long time at a new person who walks into the room.

#### In-Practice Strategies

Offer a variety of familiar and unfamiliar objects, and name and describe objects and people in English and/or the home language as children interact with them (for example, “I see you are very excited to see teacher Alejandra this morning! Why don’t we go say hello?”).

### Younger Toddlers *around 18 months*

Remembers information about recent events or interactions with people. Remembers how to use objects from a previous experience.

#### Examples

Remembers how to play peekaboo the day after an adult first played the game with them.

Looks at a photo of their dad hanging on the wall and says “Dada.”

When playing with a familiar pop-up toy, the child alternates between pushing the button for the animal to pop out, then closing the lid again so it disappears.

#### In-Practice Strategies

Present children with familiar and new objects, activities, or routines through pictures, songs, or by modeling behavior so children can become familiar with the content and how to do things (for example, as children are exploring how to open and close doors, you can demonstrate how to safely close the door and sing the song “Open Shut Them.”).

## Standard C.GCD.1 continued

### Older Toddlers around 36 months

Remembers information over an extended period of time with more detail.

#### Examples

Remembers the words to a song they learned the day before and sings the song during outdoor playtime.

Says, “Daddy took Felix to the vet when he was sick,” while pretending to be a vet taking care of a stuffed animal.

Retrieves their artwork from where the adult stored it the previous day and grabs a box of crayons to continue working on it.

#### In-Practice Strategies

Ask children questions in English and/or the home language about recent events, and invite them to share memories in different ways like drawing, role-playing, and dictating stories (for example, “¿Puedes hacer un dibujo de tu fiesta de cumpleaños?” [“Can you draw a picture of your birthday party?”], or “What animals did you see at the zoo yesterday?”).

### Pre-K3 around 48 months

Communicates about past experiences. Uses time-related vocabulary (for example, before, yesterday, morning) when trying to describe when things happen.

#### Examples

Uses their communication board to indicate that last weekend they went to the aquarium with their uncle.

Retells the story of the time they lost their basketball game.

#### In-Practice Strategies

Ask children to communicate stories about past events in English and/or the home language, such as what they did on the weekend, what they did for their birthday, or how they celebrated important family holidays (for example, “Your tío [uncle] told me you did something fun this weekend. Can you tell me about it?”).



## EARLY COGNITION AND STEAM

**Strand** C.GCD: General Cognitive Development

**Standard** **C.GCD.2:** Uses memories to anticipate what will happen and engages in more complex actions.

### Infants *around 8 months*

Anticipates simple and familiar actions or routines.

#### Examples

Opens their mouth when an adult approaches with food.

Kicks their feet and lifts their hands when an adult bends down to pick them up.

Tries to turn over the pages of a familiar book as the adult is reading it to them.

#### In-Practice Strategies

Provide a consistent, predictable schedule so children can anticipate parts of a routine, providing flexibility when needed. In English and/or the home language, describe what you are doing and what will happen next (for example, “*Ahora es el momento de tu siesta.*” [“Now it’s time for your nap.”]).

### Younger Toddlers *around 18 months*

Anticipates parts of more complicated routines (and may take action that follows the routine).

#### Examples

Helps the adult by independently extending their arms through the sleeves of their jacket when getting ready to play outside.

Tries to pull one of the baby wipes out of the baby wipe box during diapering, as the adult is removing their diaper.

#### In-Practice Strategies

Describe what you are doing and what will happen next in English and/or the home language as you engage children in familiar routines. Provide opportunities for children to help with routines (for example, during handwashing you might say, “First we put soap, then we turn on the water, and then we rub, rub, rub! Why don’t you try?”).

## Standard C.GCD.2 continued

**Older Toddlers**  
*around 36 months*

Anticipates a series of steps in a routine and remembers how to complete all steps of the routine.

**Examples**

Signs that it is time to brush their teeth, using American Sign Language, after eating breakfast and scraping leftovers into the compost receptacle.

Takes off their shoes and hangs up their coat without being asked to do so after coming home.

Grabs their favorite stuffed animal and lies down on their cot as the adult dims the lights for naptime.

**In-Practice Strategies**

Sing songs in English and/or the home language and hang up pictures around the classroom of important routines to support children in successfully engaging in these routines (for example, during cleanup time, sing, “Clean up, clean up, everybody everywhere, clean up, clean up, everybody do your share.”).

**Pre-K3**  
*around 48 months*

Recreates a series of steps from a familiar activity or routine, or even from books or stories.

**Examples**

Reenacts going to the grocery store during pretend play by driving the car to the store, putting items in the cart, and then checking out at the cash register.

Looks at the pictures of the class schedule on the wall and tells their friend in Spanish, “*Después del recreo nos lavamos las manos y leemos un libro.*” [“After recess we wash our hands and read a book.”].

**In-Practice Strategies**

Ask children to predict what will happen next in familiar routines, encouraging them to look at the class schedule for cues (for example, “Can someone remind me what happens after lunch today?”).



## EARLY COGNITION AND STEAM

**Strand** C.GCD: General Cognitive Development

**Standard** **C.GCD.3:** Observes people and imitates their behaviors, sounds, or words.

### Infants *around 8 months*

Observes people and occasionally mimics their emotional expressions, simple gestures, and other subtle behaviors.

#### Examples

Smiles in response to a familiar adult smiling at them.

Imitates sounds an adult makes such as “gaa gaa gaa” or “aaahh.”

Sticks out their tongue in response to an adult sticking out their tongue in play.

#### In-Practice Strategies

Engage in “conversations” in English and/or the home language by imitating the cooing and babbling sounds the child makes and adding new sounds (for example, if the infant says “maa maa maa,” respond by saying “maa maa maa, baa baa baa”).

### Younger Toddlers *around 18 months*

Attends to the actions of other people and imitates some simple actions, words, or sounds.

#### Examples

While reading a Spanish book about animal sounds with an adult, imitates the adult to make the sound of a dog in Spanish, “guau guau.” [“woof woof.”].

After finishing a meal, mimics an adult gesturing “all done.”

#### In-Practice Strategies

Sing action songs together with children that involve moves and gestures in English and/or the home language (for example, “La Araña Pequeñita” [“The Itsy-Bitsy Spider”] or “Wheels on the Bus”), encouraging children to copy your movements.

## Standard C.GCD.3 continued

### Older Toddlers around 36 months

Imitates actions involving multiple parts. Imitates words or gestures in order to communicate.

#### Examples

Plays a clapping game that involves imitating an adult who claps their hands and pats their legs in a pat-pat-clap pattern.

During pretend play, after an adult picks up a pretend phone and says, “Hello? Who is this?” the child picks up the same toy phone, holds it near their face, and says, “Hello!”

Pretends to make a cake, wrap gifts, and decorate the room, “Like *abuelita* [grandma] for my birthday party.”

#### In-Practice Strategies

Read books, play games, and model activities where children can follow and imitate actions, patterns, and skills (for example, when reading a book about frogs, ask the child to leap like a frog and to say “ribbit,” or “*croá*” in Spanish).

### Pre-K3 around 48 months

Imitates complex actions and behaviors involving multiple steps to solve problems and achieve goals.

#### Examples

Imitates an adult’s actions to wind and open a music box.

Watches as an adult draws a snowman made of three circles and two lines for arms, then approximately copies the drawing on their own sheet of paper.

#### In-Practice Strategies

Engage children in imitation games such as “Follow the Leader” where you ask children to take turns making up moves that the rest of their peers must copy (for example, the leader might jump over the rug and crawl under the table).





## EARLY COGNITION AND STEAM

**Strand** C.GCD: General Cognitive Development

**Standard C.GCD.4:** Develops an understanding that certain objects, actions, or symbols can represent other objects or actions.

### Infants *around 8 months*

Becomes familiar with objects and actions through exploration.

#### Examples

Drops a ball onto the ground to watch it bounce.

While sitting and playing on the rug, brushes their hands back and forth on the rug, feeling its texture.

#### In-Practice Strategies

Explore objects with infants in various ways (for example, squeeze a ball, bounce it on the floor, or roll it down a ramp).

### Younger Toddlers *around 18 months*

Uses objects to represent actions with other objects.

#### Examples

Holds a block and pretends to brush their own hair.

Moves their toy car back and forth while saying “vroom vroom.”

Grabs a chapter book and pretends to read the text, occasionally turning over the page. When the adult asks, “Are you reading?” the child nods “yes.”

#### In-Practice Strategies

Model symbolic play by using a variety of objects to represent other objects common in children’s routines and environment (for example, pick up a banana during snack time and pretend to use it as a phone, or use a pencil to pretend to brush your teeth).

## Standard C.GCD.4 continued

### Older Toddlers around 36 months

Engages in pretend play involving several ordered steps and assigned roles. Uses objects flexibly so that one object can represent multiple other objects (for example, a block becomes a car, then a cookie). Engages in pretend play by imagining an object without needing any concrete object present (for example, pretending to hold an invisible phone).

#### Examples

Sits inside a big cardboard box with a peer and starts “driving” the pretend car. The child, who is learning English and Spanish, says, “Let’s go eat *galletas* [cookies] with *abuela* [grandmother].”

Pretends to make a cake by stirring the batter with an imaginary spoon. The child assigns another child to be the “customer” buying the cake and a third child to be the “store clerk.”

#### In-Practice Strategies

Use children’s interests to set up a culturally relevant dramatic play area that allows children to reenact activities and routines from their home environment and culture. Add labels in English and/or the home language, and add pictures reflective of children’s cultures (for example, if children have talked about going to the *panadería* [bakery] with family, set up a *panadería* in the dramatic play area, where you might include a family recipe for a *tres leches* cake [popular cake in Latin America]).

### Pre-K3 around 48 months

Develops an understanding of symbols and how they can be used to represent objects, actions, or ideas.

#### Examples

Draws stick figures and points to each one, naming family members.

Makes a restaurant “menu” by scribbling lines and drawing pictures of food items. Uses the “menu” to order food at a pretend restaurant while playing with a peer.

While on a neighborhood walk, points to the crosswalk light that has a raised red hand and says, “We have to stop.”

#### In-Practice Strategies

Encourage children to notice symbols when on walks outside and decorate the classroom with these symbols (for example, hang a stop sign on the door that leads outside, or include road signs in the building area for children to use when building roads and train tracks).



## EARLY COGNITION AND STEAM

**Strand** C.MT: Mathematics

**Standard C.MT.1:** Develops a sense of numbers and demonstrates some basic knowledge of counting.

### Infants *around 8 months*

Explores objects and attends to quantity.

#### Examples

When holding one toy in each hand, drops one of the toys when offered another.

Puts their hands in a bowl of pasta and moves the pasta pieces around, occasionally picking up individual pieces.

One by one, reaches for blocks that are spread across the floor.

#### In-Practice Strategies

Offer objects that come in multiples (for example, blocks, balls, toy animals) and count out these objects with children.

### Younger Toddlers *around 18 months*

Attends to changes in quantity when interacting with objects and uses gestures and/or basic words to refer to quantity (for example, more, all gone).

#### Examples

While observing another child playing with a pile of blocks, points to the blocks and says, in Spanish, “*Mucho*” [“A lot.”].

Looks for the third dinosaur toy in their set of three, when noticing that one is missing.

Communicates “all gone” using American Sign Language after finishing a bowl of cereal.

#### In-Practice Strategies

Use words that refer to quantity during everyday routines and interactions in English and/or the home language (for example, “*Mira, dos amigos están jugando en los columpios,*” [“Look, two friends are playing on the swings,”], or “I see you grabbed three books. Which one shall we read first?”).

## Standard C.MT.1 continued

**Older Toddlers**  
*around 36 months*

Uses number words to refer to numbers or quantity. Recites part of the number list or count small sets of objects but frequently makes mistakes.

**Examples**

A child playing with two toy cars holds up both cars and says, “Two.”

After the adult asks the child how many children are sitting at the table, the child holds up four fingers.

Sings a number song to ten in their home language.

**In-Practice Strategies**

Sing songs and read books with numbers and counting in English and/or the home language, encouraging children to point and count with you (for example, “Can you count the ducks on this page?”).

**Pre-K3**  
*around 48 months*

Recites the number list to ten with increasing accuracy. Shows an emerging understanding that numbers represent “how many,” and uses one-to-one correspondence to count small sets.

**Examples**

While scavenging for leaves outside, looks over at their friend’s pile and communicates in their home language, “We have the same. I have five, and you have five.”

When asked, “How many grapes do you have?” a child counts while pointing to each grape, “One, two, three.”

Counts out eight plates when helping to set the table for lunchtime.

**In-Practice Strategies**

Point out numerals in the environment (for example, on house numbers or road signs) and ask “how many” questions in English and/or the home language (for example, “How many blocks did you use to build your tower? Can you count them?”).



## EARLY COGNITION AND STEAM

**Strand** C.MT: Mathematics

**Standard C.MT.2:** Develops spatial understanding and explores how objects and their own bodies move and fit in space.

### Infants *around 8 months*

Explores the movement of their own body and objects.

#### Examples

Kicks a mobile and notices how the objects move around and bump into each other.

Reaches for a ball and grasps it, bringing the ball to their mouth.

Shakes a rattle and looks at the little beads that swirl around inside the rattle.

#### In-Practice Strategies

Roll, bounce, or slide objects across the room, allowing children to notice how these objects move in the space (for example, gently bounce a ball on the floor or against another surface). Encourage children to join in by using relevant spatial vocabulary (for example, “Do you want to bounce the ball?”).

### Younger Toddlers *around 18 months*

Explores how objects fit together in space.

#### Examples

Tries to fit an object into the narrow opening of a container.

While crawling through a play tunnel, turns around and navigates back to the beginning when they realize the tunnel leads to a dead end.

Tries fitting multiple lids onto a container until they find the one that fits.

#### In-Practice Strategies

Provide containers of varying sizes that children can stack, open, close, and fill with other items (for example, plastic jars, cardboard boxes, recycled strawberry baskets).

## Standard C.MT.2 continued

### Older Toddlers around 36 months

Understands and uses some spatial vocabulary to describe the position (for example, under, in, on) or direction (for example, up, down) of an object. Predicts how objects interact or move through space.

#### Examples

Rotates a block to fit into a shape sorter and says, in their home language, “in.”

Completes a familiar puzzle by rotating each piece until it fits.

Looks under the table when the adult communicates, “I think your crayon fell under the table.”

#### In-Practice Strategies

Use spatial position and direction vocabulary, in English and/or the home language, as children are playing, building, and engaging in routines (for example, “*Veo que estás tratando de meter tu mochila dentro de tu cubículo*,” [“I see you’re trying to fit your backpack into your cubicle,”] or, “I see your cup fell under the table.”).

### Pre-K3 around 48 months

Demonstrates increased understanding of spatial vocabulary to describe the relative position of objects and people in space (for example, above, below, next to, behind). Follows spatial directions involving their own body.

#### Examples

Communicates to another peer in Spanish, “*Pon las empanadas en la sartén*,” [“Put the empanadas in the pan,”] during pretend play.

Follows an adult’s directions to sit down on the rug, next to the bookshelf.

Communicates, “I live next to the grocery store,” when describing where they live.

#### In-Practice Strategies

Plan activities that require children to follow directions or use spatial vocabulary in English and/or the home language (for example, create an obstacle course and give children directions for how to navigate the course).



## EARLY COGNITION AND STEAM

**Strand** C.MT: Mathematics

**Standard** **C.MT.3:** Identifies and recognizes a few basic shapes.

### Infants *around 8 months*

Explores the shape of objects.

#### Examples

Drops a ball to see how it rolls.

Puts a pyramid block into their mouth, exploring the edges of the shape.

#### In-Practice Strategies

Offer objects of various shapes and sizes.

### Younger Toddlers *around 18 months*

Explores how objects of different shapes fit or do not fit together.

#### Examples

Attempts to put a square block into a circle-shaped hole in a shape sorter.

Tries to stack a cube block on top of a pyramid block, but the cube slides off.

#### In-Practice Strategies

Offer toys that allow children to explore objects of various shapes (for example, shape sorters and shape puzzles) and name the shapes in English and/or the home language (for example, “I see you are holding a square block,” or “*Eso es un triángulo.*” [“That’s a triangle.”]).

## Standard C.MT.3 continued

**Older Toddlers**  
*around 36 months*

Recognizes and matches simple shapes (for example, circles, squares, triangles) especially if they are the same size.

**Examples**

Correctly places the circle and square in a simple shape puzzle.

While making a necklace out of differently shaped beads, a child learning English and Spanish points to the different shapes and names them: “*Es un triangle.*” [“It’s a triangle.”].

During pretend play, notices that the coins in the cash register are circles and the dollar bills are rectangles.

**In-Practice Strategies**

Play shape games such as “Shape Bingo” that allow children to find matching shapes. Encourage children to name the shapes as they match them in English and/or the home language.

**Pre-K3**  
*around 48 months*

Recognizes, matches, and names simple shapes varying in size (for example, circles, squares, triangles).

**Examples**

Points to triangles in a picture book and says, “Look a big triangle and a small triangle,” when reading with an adult.

While playing with a peer using a wheelchair, says to them “Look, your wheels are big circles!”

Traces around a square and triangle block to make a picture of a house.

**In-Practice Strategies**

Provide materials in multiple areas of the classroom that allow children to draw or build shapes (for example, shape cookie cutters to use with modeling clay, traceable paper shapes to use when drawing, and blocks to use for building).





## EARLY COGNITION AND STEAM

**Strand** C.MT: Mathematics

**Standard C.MT.4:** Explores the similarities and differences between objects and compares, sorts, and creates simple patterns with objects.

### Infants *around 8 months*

Explores objects and notices similarities and differences between objects.

#### Examples

Notices and shows interest in a new, unfamiliar toy.

Looks back and forth between two objects, comparing them.

Holds and shakes an unfamiliar rattle while observing it closely.

#### In-Practice Strategies

Offer objects that contrast on properties such as texture, color, or shape that children can explore using multiple senses (for example, sight, touch) and describe the differences in English and/or the home language (for example, “*Este es suave y este es duro*,” [“This one is soft and this one is hard,”] or “You are holding a red and purple block.”).

### Younger Toddlers *around 18 months*

Matches two objects that are the same and/or selects objects with similar visual properties (for example, shape, color, size, material).

#### Examples

Grabs two red plastic apples from a basket of toy food.

Removes all trains from a basket with a variety of toy vehicles and connects them to make one long train.

#### In-Practice Strategies

Describe the properties of objects children play with, such as the color, shape, texture, or size, in English and/or the home language (for example, “I see you have chosen only the big pom-poms for your art project.”).

## Standard C.MT.4 continued

**Older Toddlers**  
*around 36 months*

Sorts objects into two or more groups based on one property such as shape, color, size, or their function, though sometimes inaccurately.

**Examples**

A child who is blind sorts beads into two piles based on texture: smooth or bumpy.

Puts all white cars into one pile and all the blue cars into another pile.

Sorts blocks into piles based on shape: rectangles, triangles, and circles.

**In-Practice Strategies**

Offer collections of objects that vary on several properties such as color, shape, texture, and size (for example, beads, buttons, cars, blocks) that children can sort in multiple ways.

**Pre-K3**  
*around 48 months*

Sorts objects into two or more groups based on one property such as shape, color, size, or their function with increasing accuracy. Notices and creates simple patterns.

**Examples**

Copies the adult's drum pattern by clapping their hands "soft–soft–loud, soft–soft–loud" during music time.

Strings beads of various shapes on a necklace with a star–circle–star–circle pattern and tells a peer, "My necklace is star and circle all over."

Sorts toy animal figurines by whether they have wings or no wings.

**In-Practice Strategies**

Play a variety of pattern games, such as "Find the Pattern," where children are asked to find, describe, or make patterns.



## EARLY COGNITION AND STEAM

**Strand** C.MT: Mathematics

**Standard C.MT.5:** Demonstrates some knowledge of the measurable properties of objects such as size, length, and weight.

### Infants *around 8 months*

Explores objects and attends to the most noticeable properties of objects (for example, size).

#### Examples

Picks up a block and puts it in their mouth to explore, then picks up a bigger block and does the same action.

While sitting in a highchair, lets go of a spoon and watches it fall to the ground.

#### In-Practice Strategies

Explore objects of varying sizes together with infants, describing the properties of these objects in English and/or the home language (for example, while playing with a stuffed animal dog, you can say, “Look at this small dog! And look at this dog, so big!”).

### Younger Toddlers *around 18 months*

Explores objects and notices how they differ by size and other properties (for example, length, weight).

#### Examples

Tries to place a big ball in a basket that is too small and then picks up a smaller ball that does fit into the basket.

Picks up the big bouncy ball and shows it to an adult, saying, “Big.”

#### In-Practice Strategies

Offer a variety of three-dimensional objects that vary in size and capacity that children can use to explore how objects differ in size and fit together (for example, nesting cups, recycled containers).

## Standard C.MT.5 continued

### Older Toddlers around 36 months

Understands and uses some words to describe the measurable properties of objects such as size and length (for example, big, little, long).

#### Examples

A child learning American Sign Language makes a racetrack alongside their peer and signs “mine long” to express that their racetrack is longer.

While helping to set the table, grabs only small spoons from the cutlery basket after the adult asks, “Can you grab the small spoons so we can eat our yogurt?”

When playing with animal figurines, names the big elephant “*Papá*” [“Dad”] and the small animal elephant “*Bebé*” [“Baby”].

#### In-Practice Strategies

Read books about measuring in English and/or the home language and make connections to children’s own experiences (for example, when reading the book *Actual Size*, ask, “Is your tongue as long as the giant anteater’s tongue?”).

### Pre-K3 around 48 months

Understands and uses words to describe differences in size, length, or weight of objects (for example, bigger, longer, heavier). With adult support, compares and orders objects by size or length.

#### Examples

A child learning English and Spanish points to their train and says, “*Quiero hacer el tren more largo.*” [“I want to make the train longer.”].

Fills a bucket in the sensory area with sand and tries to lift it. Then communicates to their peer, “My bucket is a lot more heavy now.”

A child with a speech delay attempts to order nesting cups based on size. When the adult asks, “Which cup is next?” the child grabs the next biggest cup and adds it to the line.

#### In-Practice Strategies

Set up measurement activities that ask children to measure objects around the classroom using unit items (for example, connecting blocks). Encourage children to describe the length of these objects in English and/or the home language (for example, “Is the book longer or shorter than the stuffed teddy?”) and to order them from small to big.



## EARLY COGNITION AND STEAM

**Strand** C.STE: Science, Technology and Engineering

**Standard** **C.STE.1:** Demonstrates curiosity about the world through exploration and investigation of physical objects and materials.

### Infants *around 8 months*

Focuses attention on things that happen in the environment and explores objects through the senses and a variety of simple actions.

#### Examples

Mouths or touches an object and explores the object's shape, textures, colors, or sounds.

When playing on a mat, scoots to the edge and touches the soft rug underneath.

Discovers a new rattle in the play area and shakes it repeatedly.

#### In-Practice Strategies

Provide a variety of objects and indoor and outdoor play areas for children to explore on their own and with other children and adults. Describe the characteristics of objects and events as children explore them.

### Younger Toddlers *around 18 months*

Explores and learns about objects and events in their environment through repeated intentional actions.

#### Examples

Repeatedly places a ball at the top of an incline and watches it roll down when playing outside.

Picks natural objects from a basket on the shelf (for example, a pinecone, shells, rocks) and explores them by touching them, stacking them, and putting them in different containers.

#### In-Practice Strategies

Support children's exploration of indoor and outdoor environments and provide a variety of objects and materials that encourage active exploration. Observe children to identify activities and materials that build on their interests.

## Standard C.STE.1 continued

### Older Toddlers around 36 months

Seeks information through explorations with objects, observations, and by asking others. Uses trial and error to investigate objects and events.

#### Examples

Stacks blocks to create a tall structure, and when it falls, tries again by stacking the blocks in a different way.

While playing outside at the water table, children drop different objects into the water to watch them sink. One of them asks in their home language, “Why that one not going down so fast?” An adult asks, “What do you think?” and the children discuss explanations.

Repeatedly drops different marbles down a marble run to see which one will go farthest.

#### In-Practice Strategies

Encourage children’s curiosity by providing experiences for them to explore with objects. Ask questions and pose open-ended prompts in English and/or the home language to extend and support their explorations.

### Pre-K3 around 48 months

Asks simple questions, makes predictions, and engages in sustained explorations and investigations of objects and events. Explains or describes observations.

#### Examples

On a walk, when rolling different objects downhill, a child demonstrates how the red car is faster than the green truck and explains in Spanish, “*El verde es lento porque está tan grande.*” [“The green one is slower because it’s so big.”].

Using their communication cards, predicts that mixing blue and yellow paint will make green, and tests their prediction. Then adds other paints to see how the color continues to change.

#### In-Practice Strategies

Provide materials and experiences that children can control and manipulate and then predict what will happen as a result of their actions. Allow children to test their predictions independently and collaboratively while providing support and asking open-ended questions. Help children document their findings.



## EARLY COGNITION AND STEAM

**Strand** C.STE: Science, Technology and Engineering

**Standard** **C.STE.2:** Develops an understanding of the causes and effects of actions and events.

### Infants *around 8 months*

Focuses attention on the effects of their actions on objects and repeats simple actions to make things happen.

#### Examples

Repeatedly drops an object and waits for an adult to pick it up.

Pulls at the string of a musical pull toy until they are able to make the music play.

#### In-Practice Strategies

Offer materials and objects with different characteristics (for example, textures, sounds, colors) that children can use to make things happen (for example, ball of different sizes and textures, rattles). Describe in English and/or the home language the causes and effects that the children explore (for example, “*Cuando tiras de la cuerda, hace música*,” [“When you pull the string, it makes music.”]).

### Younger Toddlers *around 18 months*

Interacts purposefully with objects to explore cause and effect.

#### Examples

Hits a puddle of water with their hand repeatedly and watches the splashes this causes.

Pushes a button repeatedly to make the music on an interactive toy turn on and off.

Plays with stacking cups and observes as they balance and sometimes topple over.

#### In-Practice Strategies

Offer materials and objects with different characteristics (for example, textures, sounds, colors) that children can use to make things happen (for example, music boxes, wind-up toys, balls). Describe in English and/or the home language the causes and effects that the children explore (for example, “That button makes the music turn on. This button makes the light turn on.”).

## Standard C.STE.2 continued

### Older Toddlers around 36 months

Predicts outcomes of actions or events and identifies what caused something to happen.

#### Examples

While stacking rocks, stops and communicates in English and Spanish, “*No más* [No more]. It falls down.”

Explains that the slide is wet while playing outside because, “It was raining in the morning.”

#### In-Practice Strategies

Encourage children to make predictions about their actions and offer opportunities and materials for them to test their predictions. Make observations of the causes and effects that children explore and ask them to explain why things happen (for example, “What do you think will happen?” or “Why do you think it happened?”).

### Pre-K3 around 48 months

Asks questions about why things happen. Explains the impact of specific actions on objects and events.

#### Examples

Explains that you need to push an object harder to make it go farther.

Asks an adult why the class plant looks yellow. The adult facilitates a conversation with other children about what might make the plant's leaves yellow.

Explains in a mix of English and their home language that the crayons melted because they were left out in the hot sun.

#### In-Practice Strategies

Provide extended opportunities for children to test predictions about causes and effects independently. Ask open-ended questions, in English and/or the home language, about what they think might happen and ask them to explain their reasoning based on their prior knowledge (for example, “Why do you think this structure balanced and this one did not?” or “¿Por qué se deslizó por la rampa?” [“Why did it slide on down the ramp?”]).





## EARLY COGNITION AND STEAM

**Strand** C.STE: Science, Technology and Engineering

**Standard** **C.STE.3:** Explores the characteristics of the natural world, including living things, earth materials, the weather, and objects in the sky.

### Infants *around 8 months*

Focuses attention on the sounds, light, movements, and earth materials in their environment. Notices and explores their own body.

#### Examples

Taps their hand on a window that is full of raindrops. The adult holding them communicates, “Yes, it’s raining outside.”

Follows the moving sunlight coming through a suncatcher hanging by the window.

When given a container with water and river rocks, splashes the water and touches and plays with the rocks.

#### In-Practice Strategies

Provide opportunities for children to experience the outdoors, living things (including plants and animals), natural materials, and varied types of weather. Describe in English and/or the home language the objects, materials, and events children experience in everyday interactions (for example, “Look, it’s raining. Everything is getting wet!” or “*El caracol se desliza muy despacio.*” [“The snail slides very slowly.”]).

### Younger Toddlers *around 18 months*

Explores the characteristics of living things (plants and animals) and the physical properties of materials.

#### Examples

While playing in a sandbox, makes a pile of sand and then pats it to make the sand spread out.

On a nature walk, shuffles through a pile of leaves and steps on some of them to hear them crunch.

#### In-Practice Strategies

Draw children’s attention to plants and animals in the local environment; name plants and animals in English and/or the home language. Include books, images, or other items in the classroom that represent living things realistically. Provide collections of materials with different properties (for example, balls that are big, small, smooth, bumpy, heavy, or light) and describe the characteristics of the materials in English and/or the home language.

## Standard C.STE.3 continued

**Older Toddlers**  
*around 36 months*

Explores and makes observations about familiar objects, living things (plants and animals), and materials. Makes observations about the weather and about objects in the sky (sun, moon, stars, and clouds).

**Examples**

Points to a cloud in the sky and uses American Sign Language to communicate that it looks like a heart.

Explores different objects at the light table and points to the objects that let the light through and the objects that block the light.

Watches the classroom turtle and comments that the turtle likes to sleep under the heated light.

**In-Practice Strategies**

Encourage children's noticing and exploration of living things, physical materials, and objects in the sky (for example, moon, sun, clouds). Share books and replicas that represent living things and their habitats, different kinds of objects and materials, and different types of weather, seasons, and objects in the sky.

**Pre-K3**  
*around 48 months*

Describes the needs of living things and how living things (plants and animals) change over time, the properties of materials and objects, and how the weather and objects in the sky (sun, moon, stars, and clouds) appear to move and change.

**Examples**

Sorts pictures of animals into groups according to which animals live in water, which live on land, and which can live in either place.

Communicates to an adult in their home language, "Sometimes the moon is a circle, and sometimes it's only part of a circle."

**In-Practice Strategies**

Have available books and materials that represent the needs of animals and plants and their habitats (for example, book about ocean animals). Discuss and identify the changes in living things, materials, the weather, and objects in the sky and ask children to represent these changes through drawing, modeling, role-playing, and dictation in English and/or their home language.



## EARLY COGNITION AND STEAM

**Strand** C.STE: Science, Technology and Engineering

**Standard C.STE.4:** Takes action, uses tools, and carries out solutions to achieve goals or solve problems.

### Infants *around 8 months*

Uses own actions and movements to achieve an immediate goal or solve simple problems that involve their body or objects.

#### Examples

Rolls to their side to reach an object that is slightly out of reach.

Uses their legs to bring a ball closer to them.

#### In-Practice Strategies

Offer objects or toys that generate children's interest and create opportunities for children to solve simple problems (for example, reaching something that is out of reach).

### Younger Toddlers *around 18 months*

Uses repeated, intentional actions to achieve goals or solve everyday problems. Uses objects as tools, watches others for possible solutions, or gestures or vocalizes for others to help.

#### Examples

Tries several ways to reach a ball that is stuck under the bed.

Observes an adult matching a shape to its corresponding slot in a shape sorter before attempting to do the same.

Points to a squeaky toy, signaling to an adult to bring it closer.

#### In-Practice Strategies

Model problem-solving strategies and describe in English and/or the home language as children engage in problem-solving actions (for example, "This shape is a square. See, it fits in the square-shaped hole.").

## Standard C.STE.4 continued

### Older Toddlers around 36 months

Uses prior experience with a situation to reach goals or solve problems that are increasingly challenging. Uses tools and asks for help when needed.

#### Examples

Two children who are putting together a train track, try matching different train track pieces until finding the ones that fit together.

Uses a plastic bucket to carry water to the sandbox. Asks a friend in Spanish to help them carry the bucket.

#### In-Practice Strategies

Step back and allow children to problem-solve and try different solutions independently. Ask open-ended questions to support children in generating possible solutions, make different tools readily available, and offer help as needed.

### Pre-K3 around 48 months

With adult support, designs and tests solutions for solving a problem or reaching a goal using a sequence of multiple steps and a variety of tools. Collaborates with peers and adults to plan and carry out solutions.

#### Examples

With adult support, a group of children brainstorm and gather materials (for example, blankets, cardboard, tape) to create a playhouse.

Uses wooden blocks and cardboard rolls to create a track for toy cars.

With adult support, a group of children use recycled materials to build an airplane in the dramatic play area.

#### In-Practice Strategies

Facilitate brainstorming conversations among children and support children as they create a plan to solve a problem or reach a goal. Offer tools, books, photos, or informational materials as prompts for children's designs.



## EARLY COGNITION AND STEAM

**Strand** C.A: Arts

**Standard C.A.1:** Demonstrates interest in and increasing capacity to create visual art.

### Infants around 8 months

Shows interest in visual art such as pictures, photographs, or sculptures. Explores sensory materials related to visual art.

#### Examples

Attends to pictures in a book read by an adult.

Touches paint that has been dabbed onto a paper plate.

Turns a multicolored toy in their hands to examine the colors.

#### In-Practice Strategies

Communicate with infants about the colors, textures, and forms in their everyday environment in English and/or the home language (for example, “This stone is so rough! Would you like to touch it?” or “¿Ves este árbol alto? Mira sus agujas largas y verdes y su tronco café. ¿Cómo se sienten las agujas? Son filosas, ¿verdad?” [“Do you see this tall tree? Look at its long, green needles and its brown trunk. How do the needles feel? They’re very sharp, aren’t they?”])

### Younger Toddlers around 18 months

Creates marks and textures\* through experimentation with a variety of visual art materials.

#### Examples

Paints with a variety of colors using fingers or sponges.

Bangs a large palm-grasp crayon repeatedly on a piece of paper, making dots on the paper.

Paints using a homemade “ice pop” made from dyed water. Glides the ice across a sheet of thick paper and observes how the color runs across the paper.

#### In-Practice Strategies

Provide children a variety of materials to experiment with for creating visual art. For example, in addition to painting with paintbrushes, consider using objects such as leaves, flowers, rags, or toothbrushes to apply paint in different ways. Encourage children to explore the different textures and colors.

\* Children can create different textures in visual art by using a variety materials and actions. For example, using a sponge to dab acrylic paint will produce a different texture than using fingers to spread colorful shaving foam.

## Standard C.A.1 continued

### Older Toddlers around 36 months

Creates drawings and paintings and experiments with three-dimensional art (for example, collages, sculptures) using a variety of materials. Sometimes creates with the intention to represent objects, people, or scenes, although their representations may not be recognizable.

#### Examples

Paints with dark blue paint, then runs a plastic fork through the paint and inspects the lines made by the fork.

Flattens a piece of clay with their hand and uses cookie cutters to add shapes to the clay.

Makes a series of uneven lines with crayon on a piece of paper, then points to the paper and communicates, “*Es un caballo.*” [“It’s a horse.”].

#### In-Practice Strategies

Provide materials for drawing, painting, collaging, and sculpting. When planning art activities, focus on introducing new materials and techniques, developing children’s fine motor skills, and encouraging creative expression rather than trying to produce a specific final product.

### Pre-K3 around 48 months

Creates drawings and paintings using controlled lines and three-dimensional forms using a variety of materials. Demonstrates the ability to create a few basic representations of objects, people, or scenes.

#### Examples

Draws an oval shape with two dots to resemble a simple face with eyes.

Creates a collage using beads, leaves, and pom-poms.

Paints a long vertical line with scribbled circles above it to represent a flower during a class activity creating pictures of gardens.

#### In-Practice Strategies

Encourage children to communicate about the art they are creating in English and/or the home language. Ask questions about their creative choices (for example, “You’re putting a lot of paint in that corner over there. What made you decide to do that?”). If the child is creating art that they intend to represent something, such as a person or scene, ask open-ended questions or prompts about their art (for example, “*Cuéntame de tu dibujo.*” [“Tell me about your drawing.”]).



## EARLY COGNITION AND STEAM

**Strand** C.A: Arts

**Standard C.A.2:** Demonstrates interest in and increased capacity to explore, create, and respond to vocal and instrumental music.

### Infants *around 8 months*

Attends to a variety of sounds, vocalizations, and vibrations.

#### Examples

Smiles while an adult sings a song.

Moves their arms and legs or rocks back and forth in response to music.

Hits the strings of a guitar with the palm of their hand, then rests their hand briefly on the strings when they feel the vibrations.

#### In-Practice Strategies

Play songs or sing chants during everyday routines or interactions, adding movement when appropriate (for example, sing songs that include movement, such as “The Itsy-Bitsy Spider” or “Pat-a-Cake”).

### Younger Toddlers *around 18 months*

Experiments with a variety of sounds, vocalizations, and vibrations using objects, instruments, or voices.

#### Examples

Shakes a plastic bottle filled with lentils while music is playing, although not to the beat of the music.

Sings “oh-oh-oh” during part of a favorite song.

Uses hands or an object to bang on an empty coffee container like a drum.

#### In-Practice Strategies

Provide a variety of instruments or homemade “noisemakers” (for example, shaker toys, drums) to allow children to experiment with the different kinds of sounds they can make.

Standard C.A.2 continued

**Older Toddlers**  
*around 36 months*

Engages in extended exploration of vocal and instrumental music, responding to tempo (speed) and dynamics (loudness).

**Examples**

Hits the keys of a xylophone with a mallet, jumping irregularly from note to note and playing in an irregular rhythm.

Sings a few lines of the chorus of their favorite song.

Moves their body to a song, using fast movements during a fast part of the song and slower movements during a slow part of the song.

**In-Practice Strategies**

When singing songs that children know, introduce different tempos and dynamics (for example, sing a verse very quietly and then again very loudly, or sing very slowly and then very quickly). Accompany these changes with body movements. For example, crouch down and use very small hand motions when singing quietly, then jump up and make large, sweeping arm motions when singing loudly.

**Pre-K3**  
*around 48 months*

Demonstrates increased vocal and physical control when exploring and responding to rhythm, tempo (speed), and dynamics (loudness). Produce simple rhythms and short tunes using objects, instruments, or voices.

**Examples**

Finds two long paper towel tubes and taps them together in a rhythm, although not always in a steady beat.

Sings and dances to a variety of familiar songs in a group.

Raises their arms high in the air during the high notes of a song, following a teacher's movements, then moves low to the ground as the notes get lower.

**In-Practice Strategies**

Encourage children to share songs from their home languages and cultures. If the song is in a language that other children in the group do not understand, facilitate collaboration by having some children play along with the singing (for example, tapping on a drum) or by learning a few repetitive words or syllables from the chorus of the song.





## EARLY COGNITION AND STEAM

**Strand** C.A: Arts

**Standard C.A.3:** Develops the ability to engage in role-play.

### **Infants** *around 8 months*

(No indicator)

### **Younger Toddlers** *around 18 months*

(No indicator)

## Standard C.A.3 continued

### Older Toddlers around 36 months

Engages in simple pretend play by themselves or with others.

#### Examples

“Cooks” pretend food in a toy kitchen.

Joins another child jumping on the grass pretending to be a frog, jumping and shouting, “ribbit, ribbit.”

Turns a play steering wheel back and forth on the playground, making noises resembling a car or bus.

#### In-Practice Strategies

Play along with children’s pretend scenarios (for example, “Oh, you’re calling me on the phone. I’ll answer. Hello! Who is this?”). Suggest prompts to begin or extend pretend play in English and/or the home language, such as, “I’m really hungry. Would you make some soup for me to eat?” or “We’re on a train! Where are we going?”

### Pre-K3 around 48 months

Engages in role-play\*, acting out characters or scenes by themselves or with others using a few simple gestures, expressions, and props to convey emotions or characteristics.

#### Examples

Pretends to be the scary monster from a story they have experienced by stomping and using a loud, deep voice.

Acts as their favorite superhero, asking a teacher for help tying a scarf around their neck to use as a cape. Uses a high-pitched voice to represent a person in danger calling, “Help, help!” then deepens their voice to represent the superhero, shouting, “I’m coming to save you!” before spreading their arms out and pretending to fly.

Together with another child, plays “grandmas” during outdoor playtime. Using a stick they have found on the ground, the child pretends to hobble using a cane and speaks in a high, creaky voice.

#### In-Practice Strategies

Have a dramatic play area filled with materials such as clothing, scarves, writing materials, puppets, and toys representing everyday materials (for example, food). Open-ended materials, or materials that can serve more than one specific purpose, can encourage imaginative play. For example, children can use scarves or fabric squares as clothing, capes, blankets, or forts. Something as simple as a paper towel roll can be used as a fishing pole, drumstick, or a telescope.

\* Children continue to engage in pretend play in Pre-K3 and beyond. However, they develop the more specific ability to engage in role-play, which involves changing voices, movements, or language to act out a real or imaginary character (which can be a person, animal, or other animate object).



# PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

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The Physical Well-Being and Motor Development domain describes how children learn to move their bodies, control their movements, and use their senses to learn about their environment. It also describes children's understanding of healthy behaviors and routines, such as healthy eating habits and self-care routines like washing their hands. Children's physical skills, their interest and involvement in physical activities, and their understanding of healthy habits are all important for children's health and development throughout their lives.

From birth, infants respond to their world using their senses.<sup>68</sup> For example, an infant may turn their head at the sound of a caregiver's voice. As children learn to control their muscles, their movements become increasingly coordinated. They learn to explore their environments by reaching, touching, and grasping objects.<sup>69</sup> As motor skills increase, children also become more involved in their own care and show greater interest in healthy eating habits.<sup>70</sup> Early in development, children learn to move their body throughout their environment. By crawling, walking, or climbing, young children can explore faraway places and become more autonomous.<sup>71</sup> Preschoolers continue to develop these skills as part of play and learning. Children's perceptual skills and motor development play an important role in their social and emotional development and cognitive development.

Children's physical well-being and motor development are influenced by their experiences, their environments, their cultural backgrounds, and their own bodies. Not all children reach motor milestones such as sitting, crawling, or walking at the same rate or in the same order. The examples illustrate just a few ways in which children may demonstrate their development of a concept or skill. Children with diverse needs and abilities may demonstrate their skills and knowledge in diverse ways. It is important to be thoughtful and sensitive when thinking about an individual child's physical development and well-being. When planning, consider each child's needs and abilities and how activities and schedules might be adapted to meet them. For example, if some children are best able to try new things early in the day, that might be the right time to introduce a new activity or toy, while after nap time might be a better time for familiar routines.

## PHYSICAL WELL-BEING AND MOTOR DEVELOPMENT STRANDS

The Physical Well-Being and Motor Development domain includes the following strands:

- Perception and Sensory Integration
- Gross Motor Development
- Fine Motor Development
- Daily Routines, Health, and Nutrition

### PERCEPTION AND SENSORY INTEGRATION

Infants and children use their senses to learn about the world around them. Coordinating and making sense of different information from various senses allows children to develop greater awareness of their bodies in space and to adapt their movements and actions.<sup>72</sup> This strand describes how children use information from their senses to explore and learn about objects, people, and experiences in their world.<sup>73</sup>

### GROSS MOTOR DEVELOPMENT

Gross motor skills allow children to explore their environment and interact with others by using their whole body.<sup>74</sup> An infant begins their gross motor development by gaining control over their head, neck, and torso.<sup>75</sup> As they gain control, they learn to sit unsupported.<sup>76</sup> As the child grows older, they learn to move in new ways by walking, throwing, and jumping.<sup>77</sup> They learn to coordinate whole-body movements together to ride a tricycle or dance.<sup>78</sup> This strand describes how children develop increased control and coordination of their large muscles, which allows them to expand ways they explore and interact with their social and physical environments.

### FINE MOTOR DEVELOPMENT

Fine motor skills refer to children's ability to hold and manipulate objects with their hands and fingers.<sup>79</sup> This strand describes how children learn to use their hands and fingers together to interact with toys and other objects.<sup>80</sup> It also describes how children learn to use tools such as chopsticks, forks, markers, scissors, or shovels to accomplish goals.

### DAILY ROUTINES, HEALTH, AND NUTRITION

It is important for young children to learn to follow daily routines and learn about healthy eating. Infants depend in large part on their caregivers for help with daily routines.<sup>81</sup> However, as children grow older, they become more autonomous in their self-care routines. For example, young children learn to put on a coat before going outside and to wash their hands after toileting or before eating.<sup>82</sup> With support, children learn how different foods help them grow.<sup>83</sup> This strand describes children's increasing autonomy around daily routines and self-care. It also describes how children learn about healthy eating and how to keep their bodies healthy.



## PHYSICAL WELL-BEING AND MOTOR DEVELOPMENT

### INCLUSIVE STANDARDS FOR ALL CHILDREN

#### CHILDREN WITH DISABILITIES

In supporting children with disabilities in the Physical Well-Being and Motor Development domain, educators need to keep in mind that each child learns at a different pace and in a different way. Children with physical disabilities may need adaptive equipment and adaptive tools to participate in motor activities in the classroom. For example, some children may use a mobility aid like a wheelchair or walker to navigate their environments. Children with physical disabilities or with sensory processing disorders may also need extra supports to interact with their environments, such as arranging time for a child to explore a new space when it is quiet or the opportunity to observe a new activity, such as a music class, several times before participating. Some children may benefit from specific accommodations or adaptations to fully participate in all learning. Collaboration with a child's family and caregivers, related service providers, and special educators is essential to ensure a high-quality, individualized education for the child with disabilities.

Educators can proactively reduce barriers to learning and include diverse learners by adopting a universal design approach. The Universal Design for Learning (UDL) Guidelines involve providing multiple means of engaging with materials, representing information, and expressing knowledge.<sup>84</sup> Universal design does not replace individualized support and instruction for children with disabilities, but UDL is a strengths-based approach to supporting the characteristics and abilities of diverse learners. Educators support children's physical and motor development by offering diverse ways to practice physical development skills and engage with and explore the environment. Using appropriate modifications and accommodations supports children's physical well-being and motor development.





## IN-PRACTICE STRATEGIES

Educators and families play a crucial role in fostering young children's understanding and growth in physical well-being and motor development. Each standard includes one in-practice strategy per age group describing how educators can support children to develop the knowledge and skills described in the standard. Below are some examples of in-practice strategies educators can use to support children's development and learning across the standards in physical well-being and motor development:

- Offer opportunities for children to touch, explore, and manipulate objects and materials varying in texture (cardboard boxes, different fabrics, wooden and foam blocks). Throughout the day, set up safe and clean areas both indoors and outdoors for children to engage in gross motor activities. For example, provide children with platforms, uneven surfaces, and opportunities to climb.
- Set up activities using a variety of tools, toys, or other materials to support children's fine motor skills. For example, set up a pretend kitchen area with different tools for children to manipulate through play or set up boxes of different sizes that children can use in different ways, such as putting things in the boxes and taking them out or making stacks of boxes.
- Involve children in mealtimes by talking about the foods, offering choices, and, when developmentally appropriate, including them in food preparation.
- Support children to learn daily routines by talking through the routines, offering visual supports, and encouraging children to participate in their own personal care as developmentally appropriate.



## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.PS: Perception and Sensory Integration

**Standard P.PS.1:** Uses and integrates information from the senses to explore and learn about objects, people, and experiences and to navigate own movement and actions.

### Infants *around 8 months*

Uses the senses to learn about objects and people in the environment.

#### Examples

Explores a block by looking at and touch it, and then puts it into their mouth.

Shakes a small rain stick.

#### In-Practice Strategies

Provide objects with a variety of textures, colors, smells, and sounds (for example, let children explore fruits like bananas that they can touch, squeeze, smell, and taste).

### Younger Toddlers *around 18 months*

Uses sensory and perceptual information to adapt their movement and actions.

#### Examples

Spends a long time at the top of a slide, using touch and visual information to decide if it is safe to slide down.

Takes slow and careful steps while transitioning from walking on a carpet to a tiled area.

Touches modeling clay with one finger and later squishes it with their whole hand.

#### In-Practice Strategies

Offer opportunities to crawl, climb, or slide on different surfaces varying in texture, incline level, or height, occasionally with adult encouragement when needed (for example, crawl over bubble wrap, walk through a maze, climb on playground equipment).

## Standard P.PS.1 continued

**Older Toddlers**  
*around 36 months*

Coordinates information across senses and adjusts their interactions with objects and materials to successfully accomplish a goal in play or daily routines.

**Examples**

Easily coordinates visual and touch information to correctly fit a shape into a shape sorter.

Picks up damp sand and squeezes it to form a ball, then rubs their hand in dry sand.

Lies on the floor while pushing a big bouncy ball against a wall with their feet.

**In-Practice Strategies**

Provide children with time and space to play and build with objects varying in shape, size, and texture (for example, pulling a wagon outside across a variety of surfaces like grass, concrete, or sand).

**Pre-K3**  
*around 48 months*

Integrates information across all the senses and uses perceptual information about objects and their own body in space to problem-solve and accomplish increasingly complex behaviors.

**Examples**

Navigates through an obstacle course in the yard, by moving their body over and under the obstacles.

Steers a tricycle around cones on the playground.

Runs their hand along a fence as they walk and observes, “The bumps make my hand bounce.”

**In-Practice Strategies**

Set up sensory stations like a sand pit or a water table, where children can explore by moving objects or their own bodies through the different materials (for example, set up a sand pit with toy cars and water so children can see what it is like to roll cars in wet and dry sand).





## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.GM: Gross Motor

**Standard** **P.GM.1:** Demonstrates increased control and movement of the body using large muscles (involving the use of head, trunk, legs, and arms).

### Infants *around 8 months*

Controls head, arms, trunk, and legs, and maintains or changes their physical position.

#### Examples

Moves from sitting to being on hands and knees.

Transitions from sitting to standing by pulling themselves up using a couch or table.

Sits upright and maintains balance when reaching out for a toy hanging in front of them.

#### In-Practice Strategies

Place children in a sitting position, providing support if needed. Scatter toys just within reach for children to grab so they develop strength and control in their head, trunk, arms, and legs.

### Younger Toddlers *around 18 months*

Coordinates whole body movement to locomote (for example, crawling through a fabric tunnel, walking).

#### Examples

Uses a table to pull themselves into a standing position and cruises along using the table for support.

Jumps on a pile of cushions and rolls around, then needs help to stand up.

Walks to a toy without holding on to anything for support.

#### In-Practice Strategies

Provide opportunities for children to engage in whole body movements using a variety of toys (for example, a push toy that children can use for support while walking, or a fabric tunnel to crawl through).

## Standard P.GM.1 continued

**Older Toddlers**  
*around 36 months*

Coordinates and controls large muscles to move and explore in a greater variety of ways.

**Examples**

Goes down a short set of stairs without help from nearby adult.

Jumps over sticks and drains on the ground or moves around obstacles, using a walker as a mobility aid, during a walk outside.

**In-Practice Strategies**

Spend time outside, or in large indoor spaces, that allow children to engage in active play (for example, a playground with a play structure where they can climb stairs, slide down the slide or try a seesaw).

**Pre-K3**  
*around 48 months*

Moves with ease and has greater balance and coordination of large muscles to accomplish complex movements.

**Examples**

Throws and kicks a ball when playing outside.

Walks along a wide beam around the edge of a sandbox.

**In-Practice Strategies**

Play games asking children to move and balance their bodies (for example, ask children to move like “roll your body down a hill like a log,” or “jump over the rope like a rabbit,” or play games with a ball).



## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.GM: Gross Motor

**Standard P.GM.2:** Use large muscles and whole-body movements to explore their environment and interact with others.

### Infants *around 8 months*

Controls their head, arms, trunk, and legs to interact with objects and people.

#### Examples

Reaches out for a nearby object to play with while sitting.

Uses their arms to pull their body closer to an exciting toy.

Reaches into a container to pull out soft objects as an adult tosses them in.

#### In-Practice Strategies

Provide large, safe spaces for children to explore, placing objects just out of reach so children can practice moving their body in new ways to reach the objects (for example, crawling, rolling, stretching).

### Younger Toddlers *around 18 months*

Coordinates their whole body to move to and from people, places, and objects.

#### Examples

Cruises or walks to and from adults during playtime and moves around the room to pick up and play with different toys.

Bends over from a standing position, placing their hands on the floor, and looks at others while upside-down.

Crawls under a table to retrieve a toy that fell.

Hits air-filled balloons with hands, arms, head, or feet.

#### In-Practice Strategies

Provide opportunities for children to move freely across the room, or outside, as they play with peers or adults (for example, blow bubbles for children to chase around the room, create an obstacle course that travels across the space).

## Standard P.GM.2 continued

**Older Toddlers**  
*around 36 months*

Combines a variety of whole-body movements to initiate play with others.

**Examples**

Uses a small rake to reach leaves and sticks outdoors while using a wheelchair.

Runs and jumps around the room as part of playing with others.

Bounces on a hopper ball alongside a peer.

**In-Practice Strategies**

Provide children with many opportunities to engage in active play with peers. Set up activities that allow children to take turns throwing safe objects (for example, beanbags, soft foam balls, balloons) at targets (for example, basketball hoop, hula-hoops placed on the floor, cardboard boxes of various sizes).

**Pre-K3**  
*around 48 months*

Coordinates a variety of complex whole-body movements as part of play and interactions with others (for example, dancing) and in navigating more challenging environments.

**Examples**

Climbs up a rope climbing net, plays hopscotch, and walks on the balance beam as part of active play on a playground.

Digs with a small shovel in sand or garden soil for dinosaur bones and fills a bucket with what they dug.

Holds hands with a friend and dances in a circle singing a song in their home language.

**In-Practice Strategies**

Provide opportunities for children to coordinate playful movements, such as playing music that encourages children to move their body in a variety of ways (for example, jumping, hopping, waving arms). Encourage children to dance together or imitate one another's dance moves (for example, "Can you wiggle up and down like Carlos?").



## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.FM: Fine Motor

**Standard P.FM.1:** Demonstrates increased control and coordination of small muscles in the hands and fingers to allow for more precise actions on objects.

### Infants *around 8 months*

Grasps and holds onto objects to explore their properties.

#### Examples

Reaches out and grasps a block in their hand, and explores the block by turning it, banging it, and mouthing it.

Grabs a part of a mobile with their hands and shakes it back and forth.

Pulls off their own sock and moves it to their mouth.

#### In-Practice Strategies

Provide infants with objects that they can grasp, hold, squeeze, and shake (for example, a rattle to shake or a stuffed toy they can squeeze).

### Younger Toddlers *around 18 months*

Manipulates objects with increased precision and coordinates both hands at the same time to perform various simple actions on an object.

#### Examples

Holds a container in one hand and removes a small toy stuck inside it with their other hand.

Grabs marker with whole fist and presses it to a paper to scribble.

Turns the pages of a board book, sometimes turning more than one page at a time.

#### In-Practice Strategies

Place a variety of child-safe objects inside containers. Encourage children to retrieve the objects from the containers by shaking, prying them open, or removing a lid.

Standard P.FM.1 continued

**Older Toddlers**  
*around 36 months*

Coordinates both hands to act on objects in complex ways to accomplish a variety of everyday activities (for example, eating, building, painting, or making crafts).

**Examples**

- Stacks and balances small blocks on top of each other to build a tower.
- Uses an adaptive paintbrush to paint a banner with other children.
- Builds with blocks and manipulatives that connect and snap together.

**In-Practice Strategies**

Provide a variety of art materials and activities that require fine motor movements (for example, folding paper, ripping masking tape into pieces, or pulling the tops off markers).

**Pre-K3**  
*around 48 months*

Demonstrates highly precise, refined, and coordinated use of fingers to accomplish everyday activities.

**Examples**

- Unbuttons a button on their clothes.
- A child who is visually impaired uses glue sticks to make a paper bag puppet out of textured material, such as fabric and sequins.

**In-Practice Strategies**

Involve children in everyday tasks that require fine motor movements (for example, helping to stir with a spoon during meal preparation, or zipping up their coat when getting dressed to go outside).



## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.FM: Fine Motor

**Standard P.FM.2:** Uses tools as a way to extend the abilities of their body and accomplish goals more efficiently.

### Infants *around 8 months*

Explores objects and learns about their properties.

#### Examples

Plays with blocks by banging them against the table.

Holds a rain shaker, and when it makes a sound, looks at the shaker.

#### In-Practice Strategies

Encourage children to manipulate a variety of objects and explore how they feel, sound, and move (for example, encourage children to turn the pages of a book during story time or hold a bottle with two hands).

### Younger Toddlers *around 18 months*

Explores using objects as a way to more efficiently complete tasks.

#### Examples

Uses a stick to pull closer to them a toy that is out of reach.

Uses a mallet to hammer pegs into a Pound-A-Peg toy.

Uses an adaptive spoon with a handle to eat applesauce.

#### In-Practice Strategies

Allow children to self-feed using their hands and culturally appropriate utensils, such as spoons or chopsticks. Provide adaptive utensils based on children's needs and skill level.

Standard P.FM.2 continued

**Older Toddlers**  
*around 36 months*

Adapts to using a wider variety of tools (for example, a fork, a bucket, a shovel) to complete tasks with more precision.

**Examples**

Pours water onto plants using a watering can but spills some water onto the floor.

Tries to fix things such as musical toys with pretend play tools like a plastic screwdriver, turning over the toy to locate the screw.

Uses a fork to eat macaroni, stabbing the pasta and moving it to their mouth with the fork.

**In-Practice Strategies**

Provide a variety of tools for children to explore during different activities (for example, shovels, rakes, sifters in the sandbox).

**Pre-K3**  
*around 48 months*

Uses tools to attempt to accomplish tasks that require careful attention to detail.

**Examples**

Uses a hammer and screwdriver to put pegs and screws into a pegboard.

Uses a big wooden spoon while helping make pancakes for snack time.

**In-Practice Strategies**

Offer a variety of materials and tools for making and tinkering (for example, child-safe hammer, pegs, string, scissors, popsicle sticks, clothespins, tweezers). Model how to use new tools safely and what they can be used for.





## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.RH: Daily Routines, Health & Nutrition

**Standard** **P.RH.1:** Develops increasing independence around daily routines and self-care.

### Infants *around 8 months*

Depends on adults for help with the majority of daily activities but is responsive during personal care routines.

#### Examples

Adjusts their posture or lifts their arms in response to an adult coming over to pick them up.

Grabs onto a bottle as an adult is giving them milk.

#### In-Practice Strategies

Create simple, consistent, and safe routines based on children's needs and family preferences (for example, ask families for favorite songs or nursery rhymes to sing in preparation for naptime).

### Younger Toddlers *around 18 months*

Occasionally shows signs of autonomy and ability to cooperate during daily routines and wants to help others.

#### Examples

During handwashing, a child extends their arms as the adult puts soap into their hands.

Pulls at their coat after coming back indoors, then says “off” in their home language.

Gets another child's hat out of their cubby when getting ready for outside play.

#### In-Practice Strategies

Provide opportunities for children to perform self-care tasks (for example, during handwashing, allow the child to try and push down the soap pump to add soap to their hands, before helping them). Children's familiarity with self-care tasks may vary depending on their family and cultural practices around these routines.

Standard P.RH.1 continued

**Older Toddlers**  
*around 36 months*

Consistently demonstrates some autonomy and ability to cooperate during self-care and needs less help during daily routines.

**Examples**

- Pulls off their coat, hat, and mittens when coming in from outside play.
- Turns on the water and rinses their hands, one after another.
- Finds their own water bottle when thirsty to get a drink.

**In-Practice Strategies**

Display a visual schedule on the wall so children can successfully navigate routines and talk to children about next steps in the routine (for example, “Let’s take a look at our schedule to see what we will do next,” or “Now that we have finished snack time, we are going to read a story.”).

**Pre-K3**  
*around 48 months*

Engages in routine self-care, such as trips to the bathroom, dressing and undressing, and toothbrushing, with limited help.

**Examples**

- Asks adults for their weighted vest (a tool to help children with sensory needs self-regulate) to wear during snack time.
- Goes to the bathroom without prompting and pulls down their own pants.

**In-Practice Strategies**

Encourage children to perform self-care routines on their own and acknowledge their efforts (for example, “Wow, you zipped up your coat all by yourself!”)



## PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

**Strand** P.RH: Daily Routines, Health & Nutrition

**Standard P.RH.2:** Shows an interest in healthy eating habits and nutritious food.

### Infants *around 8 months*

Eats a variety of solid foods, including self-feeding small, soft finger foods.

#### Examples

Picks up small pieces of avocado off a highchair tray and puts some into their mouth.

Bangs utensil or hands excitedly on highchair table at the start of a mealtime.

#### In-Practice Strategies

Show infants food items and talk about them while preparing, cutting, or cooking the items. Let infants hold and taste the items if possible.

### Younger Toddlers *around 18 months*

Shows increased ability to feed self, using a spoon to bring food to their mouth, and chewing foods of a variety of textures.

#### Examples

Uses a spoon to eat yogurt from a bowl, getting most of the yogurt in their mouth.

Tries, sniffs, and/or touches an increasing variety of foods that include many colors, textures, and consistencies.

#### In-Practice Strategies

Offer children a variety of foods and the same foods prepared in a new way, or discuss food options for self-feeding with families (for example, offer soft whole beans for one meal and mashed beans for another meal).

## Standard P.RH.2 continued

**Older Toddlers**  
*around 36 months*

Shows food preferences, including favorite foods, and picks between two foods when offered.

Note that children may refuse to eat certain foods, even if they have eaten those foods in the past.

**Examples**

Points out familiar food in a book, then says in Spanish “*Abuela hace esto*” (Grandma makes this).

Picks apple slices when offered a choice between apples and bananas for a snack.

Expresses excitement when joining children for a short meal or snack.

**In-Practice Strategies**

Offer two or more options at snack and mealtimes so children can decide what they want to eat and how much they want to eat (for example, at snack time offer banana and cheese, allowing children to have both or pick one option).

**Pre-K3**  
*around 48 months*

Eats a variety of foods and demonstrates understanding that eating different types of food will help their body grow and be healthy.

**Examples**

Comments while drinking milk, “Milk makes my bones strong.”

Pretends to make soup, adding kale, potatoes, bok choy, and carrots, saying, “Papa makes vegetable soup.”

Child with Type 1 Diabetes asks an adult to help them check their blood sugar before eating applesauce.

**In-Practice Strategies**

Engage children in conversations about where foods come from and the benefits of certain foods (for example, “I like carrots because they give me energy,” or, “Does anyone know where milk comes from?”).

# ENDNOTES

- 1 Michael Yogman, Andrew Garner, Jeffery Hutchinson, Kathy Hirsh-Pasek, Roberta Michnick Golinkoff, Committee on Psychosocial Aspects of Child and Family Health, and Council on Communications and Media, "The Power of Play: A Pediatric Role in Enhancing Development in Young Children," *Pediatrics* 142, no. 3 (September 2018); Jennifer M. Zosh, Kathy Hirsh-Pasek, Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, S. Lynne Solis, and David Whitebread, "Accessing the Inaccessible: Redefining Play as a Spectrum," *Frontiers in Psychology* 9 (August 2018): 1124.
- 2 CAST, *Universal Design for Learning Guidelines version 2.2*. (2018). Retrieved from <http://udlguidelines.cast.org>.
- 3 CAST, *Universal Design for Learning Guidelines*.
- 4 Yogman et al., "The Power of Play"; Zosh et al., "Accessing the Inaccessible," 1124.
- 5 Damon E. Jones, Mark Greenberg, and Max Crowley, "Early Social-Emotional Functioning and Public Health: The Relationship Between Kindergarten Social Competence and Future Wellness," *American Journal of Public Health* 105 (November 2015): 2283–2290.
- 6 Richard A. Fabes, Bridget M. Gaertner, and Tierney K. Popp, "Getting Along With Others: Social Competence in Early Childhood," in *Blackwell Handbook of Early Childhood Development*, eds. Kathleen McCartney and Deborah Phillips (Oxford: Blackwell, 2006), 297–316.
- 7 Mary Salter Ainsworth, "The Development of Infant-Mother Attachment," in *Review of Child Development Research Vol. 3*, eds. B. Caldwell, and H. Ricciuti (University of Chicago Press, 1973): 1–94; Alejandra Cortazar, and Francisca Herreros, "Early Attachment Relationships and the Early Childhood Curriculum," *Contemporary Issues in Early Childhood* 11, no. 2 (June 2010): 192–202; Patricia McKinsey Crittenden, "A Dynamic-Maturational Approach to Continuity and Change in Patterns of Attachment," in *The Organization of Attachment Relationships*, eds. Patricia McKinsey Crittenden and Angelika Hartl Claussen (Cambridge University Press, 2000): 343–358.
- 8 Fabes et al., "Getting Along With Others"; C. Cybele Raver, "Emotions Matter: Making the Case for the Role of Young Children's Emotional Development for Early School Readiness," *Social Policy Report* 16 (2002): 3–18.
- 9 Vanessa L. Castro, Yanhua Cheng, Amy G. Halberstadt, and Daniel Grühn, "EUREKA! A Conceptual Model of Emotion Understanding," *Emotion Review* 8 (July 2016): 258–268; Ashley L. Ruba, and Seth D. Pollak, "The Development of Emotion Reasoning in Infancy and Early Childhood," *Annual Review of Developmental Psychology* 2 (December 2020): 503–531; Shauna L. Tominey, Elisabeth C. O'Bryon, Susan E. Rivers, and Sharon Shapses, "Teaching Emotional Intelligence in Early Childhood," *YC Young Children* 72 (March 2017): 6–14.
- 10 Carroll E. Izard, "Emotion Knowledge and Emotion Utilization Facilitate School Readiness," *Social Policy Report* 16 (2002): 7; Carroll E. Izard, "Basic Emotions, Natural Kinds, Emotion Schemas, and a New Paradigm," *Perspectives on Psychological Science* 2 (September 2007): 260–280; Kateri McRae, and James J. Gross, "Emotion Regulation," *Emotion* 20 (December 2020): 1; Ross A. Thompson, Marc D. Lewis, and Susan D. Calkins, "Reassessing Emotion Regulation," *Child Development Perspectives* 2 (December 2008): 124–131.
- 11 CAST, *Universal Design for Learning Guidelines*.
- 12 Christine P. Li-Grining, Elizabeth Votruba-Drzal, Carolina Maldonado-Carreño, and Kelly Haas, "Children's Early Approaches to Learning and Academic Trajectories Through Fifth Grade," *Developmental Psychology* 46 (September 2010): 1062–1077.
- 13 Adele Diamond, "The Early Development of Executive Functions," in *Lifespan Cognition: Mechanisms of Change*, eds. E. Bialystok and F. I. M. Craik (Oxford University Press, 2006): 70–95; Jamie A. Spiegel, J. Marc Goodrich, Brittany M. Morris, Colleen M. Osborne, and Christopher J. Lonigan, "Relations Between Executive Functions and Academic Outcomes in Elementary School Children: A Meta-Analysis," *Psychological Bulletin* 147 (April 2021): 329–351; Akira Miyake, and Naomi P. Friedman, "The Nature and Organization of Individual Differences in Executive Functions: Four General Conclusions," *Current Directions in Psychological Science* 21 (February 2012): 8–14.
- 14 Spiegel et al., "Relations Between Executive Functions and Academic Outcomes in Elementary School Children"; Virginia E. Vitiello, and Daryl B. Greenfield, "Executive Functions and Approaches to Learning in Predicting School Readiness," *Journal of Applied Developmental Psychology* 53 (November 2017): 1–9.

## ENDNOTES

- 15 John H. Gilmore, Weili Lin, Marcel W. Prasatwa, Christopher B. Looney, Y. Sampath K. Vesta, Rebecca C. Knickmeyer, Dianne D. Evans, J. Keith Smith, Robert M. Hamer, Jeffrey A. Lieberman, and Guido Gerig, "Regional Gray Matter Growth, Sexual Dimorphism, and Cerebral Asymmetry in the Neonatal Brain," *Journal of Neuroscience* 27 (February 2007): 1255–1260; Richard S. Nowakowski, "Stable Neuron Numbers From Cradle to Grave," *Proceedings of the National Academy of Sciences of the United States of America* 103 (August 2006): 12219–12220; Pasko Rakic, "No More Cortical Neurons For You," *Science* 313 (August 2006): 928–929; Center on the Developing Child, InBrief: The Science of Early Childhood Development (Harvard University, 2007), video, <http://www.developingchild.harvard.edu>.
- 16 Crystal D. Tran, Maria M. Arredondo, and Hanako Yoshida, "Early Executive Function: The Influence of Culture and Bilingualism," *Bilingualism* 22 (August 2019): 714–732.
- 17 Jaipaul L. Roopnarine, and Kimberly L. Davidson, "Parent–Child Play Across Cultures: Advancing Play Research," *American Journal of Play* 7 (Winter 2015): 228–252; David F. Lancy, "Learning 'From Nobody': The Limited Role of Teaching in Folk Models of Children's Development," *Childhood in the Past* 3 (July 2010): 79–106; Catherine S. Tamis-LeMonda, Irene Nga-Lam Sze, Florrie Fei-Yei Ng, Ronit Kahana-Kalman, and Hirokazu Yoshikawa, "Maternal Teaching During Play With Four-Year-Olds: Variation by Ethnicity and Family Resources," *Merrill-Palmer Quarterly* 59 (July 2013): 361–398.
- 18 Katherine E. Twomey, and Gert Westermann, "Curiosity-Based Learning in Infants: A Neurocomputational Approach," *Developmental Science* 21 (July 2018): e12629; Linda B. Smith, Swapna Jayaraman, Elizabeth Clerkin, and Chen Yu, "The Developing Infant Creates a Curriculum for Statistical Learning," *Trends in Cognitive Sciences* 22 (April 2018): 325–336; Xiaoyun Chen, Katherine E. Twomey, and Gert Westermann, "Curiosity Enhances Incidental Object Encoding in 8-Month-Old Infants," *Journal of Experimental Child Psychology* 223 (November 2022): 105508.
- 19 Twomey and Westermann, "Curiosity-Based Learning in Infants".
- 20 Center on the Developing Child, *Enhancing and Practicing Executive Function Skills With Children From Infancy to Adolescence* (Harvard University, 2014); Ji Young Choi, Sherri Castle, Amy C. Williamson, Emisha Young, Lauren Worley, Melissa Long, and Diane M. Horm, "Teacher–Child Interactions and the Development of Executive Function in Preschool-Age Children Attending Head Start," *Early Education and Development* 27, no. 6 (January 2016): 751–769.
- 21 CAST, *Universal Design for Learning Guidelines*.
- 22 Anthony J. DeCasper, and William P. Fifer, "Of Human Bonding: Newborns Prefer Their Mothers' Voices," *Science* 208, no. 4448 (June 1980): 1174–1176; Barbara S. Kisilevsky, Sylvia M. J. Hains, Kang Lee, Xing Xie, Hefeng Huang, Hai Hui Ye, Ke Zhang, and Zengping Wang, "Effects of Experience on Fetal Voice Recognition," *Psychological Science* 14, no. 3 (May 2003): 220–224; Lillian May, Krista Byers-Heinlein, Judit Gervain, and Janet F. Werker, "Language and the Newborn Brain: Does Prenatal Language Experience Shape the Neonate Neural Response to Speech?" *Frontiers in Psychology* 2 (September 2011): 222.
- 23 Megan M. Burkhardt-Reed, Helen L. Long, Dale D. Bowman, Edina R. Bene, and D. Kimbrough Oller, "The Origin of Language and Relative Roles of Voice and Gesture in Early Communication Development," *Infant Behavior and Development* 65 (November 2021): 101648; Jana M. Iverson, and Esther Thelen, "Hand, Mouth and Brain. The Dynamic Emergence of Speech and Gesture," *Journal of Consciousness Studies* 6, no. 11–12 (November 1999): 19–40; Barry M. Lester, and Philip Sanford Zeskind, "A Biobehavioral Perspective on Crying in Early Infancy," in *Theory and Research in Behavioral Pediatrics: Vol. 1*, eds. H. E. Fitzgerald, B. M. Lester, and M. W. Yogman (Springer, October 1984): 133–180; Şeyda Özçalışkan, Dedre Gentner, and Susan Goldin-Meadow, "Do Iconic Gestures Pave the Way for Children's Early Verbs?" *Applied Psycholinguistics* 35, no. 6 (November 2014): 1143–1162; Sheena Reilly, Patricia Eadie, Edith L. Bavin, Melissa Wake, Margot Prior, Joanne Williams, Lesley Bretherton, Yin Barrett, and Obioha C. Ukoumunne, "Growth of Infant Communication Between 8 and 12 Months: A Population Study," *Journal of Paediatrics and Child Health* 42, no. 12 (December 2006): 764–770.
- 24 Roberta M. Golinkoff, and Kathy Hirsh-Pasek, *How Babies Talk: The Magic and Mystery of Language in the First Three Years of Life* (Plume, July 2000).
- 25 Gary E. Bingham, "Maternal Literacy Beliefs and the Quality of Mother-Child Book Reading Interactions: Associations With Children's Early Literacy Development," *Early Education and Development* 18, no. 1 (December 2007): 23–49; Judy S. DeLoache, Sophia L. Pierroutsakos, David H. Uttal, Karl S. Rosengren, and Alma Gottlieb, "Grasping the Nature of Pictures," *Psychological Science* 9, no. 3 (May 1998): 205–210.
- 26 DeCasper and Fifer, "Of Human Bonding"; May et al., "Language and the Newborn Brain"; Kisilevsky et al., "Effects of Experience on Fetal Voice Recognition".

# ENDNOTES

- 27 Pauline Frizelle, Paul A. Thompson, Mihaela Duta, and Dorothy V. M. Bishop, "Assessing Children's Understanding of Complex Syntax: A Comparison of Two Methods," *Language Learning* 69, no. 2 (January 2019): 255–291; Gisela Håkansson, and Kristina Hansson, "Comprehension and Production of Relative Clauses: A Comparison Between Swedish Impaired and Unimpaired Children," *Journal of Child Language* 27, no. 2 (October 2000): 313–333; Ruth Tincoff, and Peter W. Jusczyk, "Some Beginnings of Word Comprehension in 6-Month-Olds," *Psychological Science* 10, no. 2 (March 1999): 172–175.
- 28 Gemma Stephens, and Danielle Matthews, "The Communicative Infant," in *Pragmatic Development in First Language Acquisition*, ed. D. Matthews (Amsterdam: John Benjamins, June 2014): 13–36.
- 29 Valerie Corkum, and Chris Moore, "The Origins of Joint Visual Attention in Infants," *Developmental Psychology* 34, no. 1 (February 1998): 28–38. <https://doi.org/10.1037/0012-1649.34.1.28>.
- 30 Nameera Akhtar, and Morton Ann Gernsbacher, "Joint Attention and Vocabulary Development: A Critical Look," *Language and Linguistics Compass* 1, no. 3 (May 2007): 195–207.
- 31 Jo Ann M. Farver, "Communicating Shared Meaning in Social Pretend Play," *Early Childhood Research Quarterly* 7, no. 4 (December 1992): 501–516. [https://doi.org/10.1016/0885-2006\(92\)90047-3](https://doi.org/10.1016/0885-2006(92)90047-3); Isabelle Kalkusch, Ann-Kathrin Jaggy, Carine Burkhardt Bossi, Barbara Weiss, Fabio Sticca, and Sonja Perren, "Promoting Social Pretend Play in Preschool Age: Is Providing Roleplay Material Enough?" *Early Education and Development* 32, no. 8 (2021): 1136–1152; M. B. Parten, "Social Play Among Preschool Children," *The Journal of Abnormal and Social Psychology* 28, no. 2 (July 1933): 136–147. <https://doi.org/10.1037/h0073939>.
- 32 Reilly et al., "Growth of Infant Communication Between 8 and 12 Months"; Lester and Zeskind, *A Biobehavioral Perspective on Crying in Early Infancy*.
- 33 Reilly et al., "Growth of Infant Communication Between 8 and 12 Months"; Mabel L. Rice, Filip Smolik, Denise Perpich, Travis Thompson, Nathan Rytting, and Megan Blossom, "Mean Length of Utterance Levels in 6-Month Intervals for Children 3 to 9 Years With and Without Language Impairments," *Journal of Speech, Language, and Hearing Research* 53, no. 2 (April 2010): 333–349. [https://doi.org/10.1044/1092-4388\(2009\)08-0183](https://doi.org/10.1044/1092-4388(2009)08-0183).
- 34 Katherine C. Hustad, Tristan Mahr, Phoebe E. M. Natzke, and Paul J. Rathouz, "Development of Speech Intelligibility Between 30 and 47 Months in Typically Developing Children: A Cross-Sectional Study of Growth," *Journal of Speech, Language, and Hearing Research* 63, no. 6 (June 2020): 1675–1687. [https://doi.org/10.1044/2020\\_JSLHR-20-00008](https://doi.org/10.1044/2020_JSLHR-20-00008).
- 35 Golinkoff and Hirsh-Pasek, *How Babies Talk*.
- 36 Elizabeth Bates, Philip S. Dale, and Donna Thal, "Individual Differences and Their Implications for Theories of Language Development," in *Handbook of Child Language*, eds. P. Fletcher and B. MacWhinney (Oxford: Basil Blackwell, January 1995): 49–65; Helen Benedict, "Early Lexical Development: Comprehension and Production," *Journal of Child Language* 6, no. 2 (January 1979): 183–200; Susan Goldin-Meadow, Martin E. Seligman, and Rochel Gelman, "Language in the Two-Year Old," *Cognition* 4, no. 2 (1976): 189–202.
- 37 Justin Harris, Roberta Michnick Golinkoff, and Kathy Hirsh-Pasek, "Lessons From the Crib for the Classroom: How Children Really Learn Vocabulary," in *Handbook of Early Literacy Research*, Vol. 3, eds. S. B. Neuman and D. K. Dickinson (New York: The Guildford Press, October 2011): 49–65; Twila Tardif, Paul Fletcher, Weilan Liang, Zhixiang Zhang, Niko Kaciroti, and Virginia A. Marchman, "Baby's First 10 Words," *Developmental Psychology* 44, no. 4 (March 2008): 929.
- 38 Carole Peterson, and Allyssa McCabe, "A Social Interactionist Account of Developing Decontextualized Narrative Skill," *Developmental Psychology* 30, no. 6 (November 1994): 937–948; Meredith L. Rowe, "Decontextualized Language Input and Preschoolers' Vocabulary Development," *Seminars in Speech and Language* 34, no. 4 (November 2013): 260–266.
- 39 Toben H. Mintz, and Lila R. Gleitman, "Adjectives Really Do Modify Nouns: The Incremental and Restricted Nature of Early Adjective Acquisition," *Cognition* 84 (July 2002): 267–293; Melissa Bowerman, and Soonja Choi, "Shaping Meanings for Language: Universal and Language-Specific in the Acquisition of Spatial Semantic Categories," in *Language Acquisition and Conceptual Development*, eds. M. Bowerman and S. Levinson (Cambridge University Press, 2001): 475–511; Katherine Nelson, "Some Attributes of Adjectives Used by Young Children," *Cognition* 4, no. 1 (January 1976): 13–30; Sandra R. Waxman, and Raquel S. Klibanoff, "The Role of Comparison in the Extension of Novel Adjectives," *Developmental Psychology* 36, no. 5 (September 2000): 571; Chen Yu, "The Emergence of Links Between Lexical Acquisition and Object Categorization: A Computational Study," *Connection Science* 17, no. 3–4 (2005): 381–397.
- 40 DeLoache et al., "Grasping the Nature of Pictures".
- 41 Elisabeth Duursma, Marilyn Augustyn, and Barry Zuckerman, "Reading Aloud to Children: The Evidence," *Archives of Disease in Childhood* 93, no. 7 (August 2008): 554–557; Sojung Kim, Haesung Im, and Kyong-Ah Kwon, "The Role of Home Literacy Environment in Toddlerhood in Development of Vocabulary and Decoding Skills," *Child Youth Care Forum* 44 (February 2015): 835–852; Stacey A. Storch, and Grover J. Whitehurst, "Oral Language and Code-Related Precursors to Reading: Evidence From a Longitudinal Structural Model," *Developmental Psychology* 38, no. 6 (December 2002) 934–947.



## ENDNOTES

- 42 Jason L. Anthony, and David J. Francis, "Development of Phonological Awareness," *Current Directions in Psychological Science* 14, no. 5 (October 2005): 255–259; Jason L. Anthony, and Christopher J. Lonigan, "The Nature of Phonological Awareness: Converging Evidence From Four Studies of Preschool and Early Grade School Children," *Journal of Educational Psychology* 96, no. 1 (March 2004): 43; Bingham, "Maternal Literacy Beliefs and the Quality of Mother-Child Book Reading Interactions"; Laura M. Justice, and Amy E. Sofka, *Engaging Children With Print: Building Early Literacy Skills Through Quality Read-Alouds* (New York: The Guildford Press, February 2010); Lesley Lancaster, "Moving Into Literacy: How It All Begins," in *Handbook of Early Childhood Literacy*, eds. N. Hall, J. Larson, and J. Marsh (New York: SAGE, 2003): 145–153; Beth M. Phillips, Shayne B. Piasta, Jason L. Anthony, Christopher Lonigan, and David J. Francis, "IRTs of the ABCs: Children's Letter Name Acquisition," *Journal of School Psychology* 50, no. 4 (May 2012): 461–481; Timothy Shanahan, and Christopher J. Lonigan, "The National Early Literacy Panel: A Summary of the Process and the Report," *Educational Researcher* 39, no. 4 (May 2010): 279–285; Tara M. Strang, and Shayne B. Piasta, "Socioeconomic Differences in Code-Focused Emergent Literacy Skills," *Reading and Writing* 29, no. 7 (March 2016): 1337–1362; Paul van den Broek, Panayiota Kendeou, Sandra Lousberg, and Gootje Visser, "Preparing for Reading Comprehension: Fostering Text Comprehension Skills in Preschool and Early Elementary School Children," *International Electronic Journal of Elementary Education* 4, no. 1 (October 2011): 259–268.
- 43 Elizabeth Sulzby, and William H. Teale, "Writing Development in Early Childhood," *Educational Horizons* 64, no. 1 (Fall 1985): 8–12.
- 44 Anne Dyson, "The Role of Oral Language in Early Writing Processes," *Research in the Teaching of English* 17, no. 1 (February 1983): 1–30; Anne Dyson, "Negotiating Among Multiple Worlds: The Space/Time Dimensions of Young Children's Composing," *Research in the Teaching of English* 22, no. 4 (May 1988): 355–390; Deborah Wells Rowe, and Carin Neitzel, "Interest and Agency in 2- and 3-Year-Olds' Participation in Emergent Writing," *Reading Research Quarterly* 45, no. 2 (April/May/June 2010): 169–195.
- 45 CAST, *Universal Design for Learning Guidelines*
- 46 Robyn Fivush, "The Development of Autobiographical Memory," *Annual Review of Psychology* 62 (July 2011): 559–582.
- 47 Susan S. Jones, "Imitation in Infancy: The Development of Mimicry," *Psychological Science* 18, no. 7 (July 2007): 593; Angeline Lillard, Ashley M. Pinkham, and Eric Smith, "Pretend Play and Cognitive Development," in *The Wiley-Blackwell Handbook of Childhood Cognitive Development*, ed. U. Goswami (New York: Wiley-Blackwell, July 2011): 285–311.
- 48 Laura Schulz, "Finding New Facts; Thinking New Thoughts," *Advances in Child Development and Behavior* 43 (January 2012a): 269–294; Laura Schulz, "The Origins of Inquiry: Inductive Inference and Exploration in Early Childhood," *Trends in Cognitive Sciences* 16, no. 7 (July 2012b): 382–389.
- 49 Douglas H. Clements, and Julie Sarama, *Learning and Teaching Early Math: The Learning Trajectories Approach*. (Routledge, 2014); Paul Muentener, and Elizabeth Bonawitz, "The Development of Causal Reasoning," in *Oxford Handbook of Causal Reasoning*, ed. M. Waldmann (Oxford University Press, 2018): 677–698; David M. Sobel, and Cristine H. Legare, "Causal Learning in Children," *WIREs Cognitive Science* 5, no. 4 (July 2014): 413–427.
- 50 Fivush, "The Development of Autobiographical Memory"; Peter A. Ornstein, and Catherine A. Haden, "Memory Development or Development of Memory?" *Current Directions in Psychological Science* 10 (December 2001): 202–205.
- 51 Judith A. Hudson, Lauren R. Shapiro, and Brandi B. Sosa, "Planning in the Real World: Preschool Children's Scripts and Plans for Familiar Events," *Child Development* 66, no. 4 (August 1995): 984–998; Judith A. Hudson, Brandi B. Sosa, and Lauren R. Shapiro, "Scripts and Plans: The Development of Preschool Children's Event Knowledge and Event Planning," in *The Developmental Psychology of Planning: Why, How, and When Do We Plan?* eds. S. L. Friedman and E. K. Scholnick (Psychology Press, 2014): 77; Isabel A. Vöhringer, Thorsten Kolling, Frauke Graf, Sonja Poloczek, Ina Fassbender, Claudia Freitag, Bettina Lamm, Janina Suhrke, Johanna Teiser, Manuel Teubert, Heidi Keller, Arnold Lohaus, Gudrun Schwarzer, and Monika Knopf, "The Development of Implicit Memory From Infancy to Childhood: On Average Performance Levels and Interindividual Differences," *Child Development* 89, no. 2 (March 2018): 370–382.
- 52 Jones, S., "Imitation in Infancy"; Frauke Graf, Sonja Borchert, Bettina Lamm, Claudia Goertz, Thorsten Kolling, Ina Fassbender, Manuel Teubert, Marc Vierhaus, Claudia Freitag, Sibylle Spangler, Heidi Keller, Arnold Lohaus, Gudrun Schwarzer, and Monika Knopf, "Imitative Learning of Nso and German Infants at 6 and 9 Months of Age: Evidence for a Cross-Cultural Learning Tool," *Journal of Cross-Cultural Psychology* 45, no. 1 (January 2014): 47–61.
- 53 Lillard et al., 2011; Chris J. Boyatzis, and Malcolm W. Watson, "Preschool Children's Symbolic Representation of Objects Through Gestures," *Child Development* 64, no. 3 (June 1993): 729–735; Joy L. Elder, and David R. Pederson, "Preschool Children's Use of Objects in Symbolic Play," *Child Development* 49, no. 2 (June 1978): 500–504.
- 54 Judy S. DeLoache, "Dual Representation and Young Children's Use of Scale Models," *Child Development* 71, no. 2 (March 2000): 329–338.
- 55 Schulz, "Finding New Facts; Thinking New Thoughts"; Schulz, "The Origins of Inquiry".



# ENDNOTES

- 56 Sobel and Legare, "Causal Learning in Children"; Cristine H. Legare, "The Contributions of Explanation and Exploration to Children's Scientific Reasoning," *Child Development Perspectives* 8, no. 2 (July 2014): 101–106; Candice M. Mills, Cristine H. Legare, Megan Bills, and Caroline Mejias, "Preschoolers Use Questions as a Tool to Acquire Knowledge From Different Sources," *Journal of Cognition and Development* 11, no. 4 (October 2010): 533–560.
- 57 Muentener and Bonawitz, "The Development of Causal Reasoning"; Anne K. Hickling, and Henry M. Wellman, "The Emergence of Children's Causal Explanations and Theories: Evidence From Everyday Conversation," *Developmental Psychology* 37, no. 5 (September 2001): 668–683.
- 58 Shari Ellis, and Robert S. Siegler, "Development of Problem Solving," in *Thinking and Problem Solving*, ed. R. J. Sternberg (Academic Press, 1994): 333–367.
- 59 David A. Caruso, "Dimensions of Quality in Infants' Exploratory Behavior: Relationships to Problem-Solving Ability," *Infant Behavior and Development* 16, no. 4 (October 1993): 441–454; Rachel Keen, "The Development of Problem Solving in Young Children: A Critical Cognitive Skill," *Annual Review of Psychology* 62 (January 2011): 1–21.
- 60 Jennifer Ashley, and Michael Tomasello, "Cooperative Problem-Solving and Teaching in Preschoolers," *Social Development* 7, no. 2 (December 2001): 143–163; Maria Fusaro, and Maureen C. Smith, "Preschoolers' Inquisitiveness and Science-Relevant Problem Solving," *Early Childhood Research Quarterly* 42 (March 2018): 119–127; Christoph P. Kaller, Benjamin Rahm, Joachim Spreer, Irina Mader, and Josef M. Unterrainer, "Thinking Around the Corner: The Development of Planning Abilities," *Brain and Cognition* 67 (August 2008): 360–370; Felix Warneken, Jasmin Steinwender, Katharina Hamann, and Michael Tomasello, "Young Children's Planning in a Collaborative Problem-Solving Task," *Cognitive Development* 31 (July 2014): 48–58.
- 61 Elizabeth M. Brannon, Donna Lutz, and Sara Cordes, "The Development of Area Discrimination and Its Implications for Number Representation in Infancy," *Developmental Science* 9, no. 6 (November 2006): F59–F64; Fei Xu, and Elizabeth S. Spelke, "Large Number Discrimination in 6-Month-Old Infants," *Cognition* 74, no. 1 (January 2000): B1–B11.
- 62 Barbara W. Sarnecka, and Susan Carey, "How Counting Represents Number: What Children Must Learn and When They Learn It," *Cognition* 108, no. 3 (September 2008): 662–674; Elena Tribushinina, "Adjective Semantics, World Knowledge and Visual Context: Comprehension of Size Terms by 2- to 7-Year-Old Dutch-Speaking Children," *Journal of Psycholinguistic Research* 42, no. 3 (June 2013): 205–225.
- 63 Marina Papic, and Joanne Mulligan, "The Growth of Early Mathematical Patterning: An Intervention Study," in *Proceedings of the 30th Annual Conference of the Mathematics Education Research Group of Australasia. Mathematics: Essential Research, Essential Practice Vol. 2*, eds. J. Watson and K. Beswick (MERGA, 2007): 591–600; Bethany Rittle-Johnson, Erica L. Zippert, and Katherine L. Boice, "The Roles of Patterning and Spatial Skills in Early Mathematics Development," *Early Childhood Research Quarterly* 46 (1st Quarter 2019): 166–178. <https://doi.org/10.1016/j.ecresq.2018.03.006>.
- 64 Douglas H. Clements, and Michelle Stephan, "Measurement in Pre-K to Grade 2 Mathematics," in *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education*, eds. D. H. Clements and J. Sarama (Routledge, 2004): 299–317; Douglas H. Clements, Sudha Swaminathan, Mary Anne Zeiter Hannibal, and Julie Sarama, "Young Children's Concepts of Shape," *Journal for Research in Mathematics Education* 30, no. 2 (March 1999): 192–212; Clements and Sarama, *Learning and Teaching Early Math*.
- 65 Vivian Gussin Paley, *A Child's Work: The Importance of Fantasy Play* (University of Chicago Press, 2009).
- 66 Thalia R. Goldstein, and Matthew D. Lerner, "Dramatic Pretend Play Games Uniquely Improve Emotional Control in Young Children," *Developmental Science* 21, no. 4 (July 2018): e12603.
- 67 CAST, *Universal Design for Learning Guidelines*.
- 68 Karen E. Adolph, Marion A. Eppler, Eleanor J. Gibson, "Crawling Versus Walking Infants' Perception of Affordances for Locomotion Over Sloping Surfaces," *Child Development* 64, no. 4 (August 1993): 1158–1174. <https://doi.org/10.2307/1131332>.
- 69 Philippe Rochat, "Mouthing and Grasping in Neonates: Evidence for the Early Detection of What Hard or Soft Substances Afford for Action," *Infant Behavior and Development* 10, no. 4 (October–December 1987): 435–449. [https://doi.org/10.1016/0163-6383\(87\)90041-5](https://doi.org/10.1016/0163-6383(87)90041-5).
- 70 Lisette d'Entremont, Megan Gregor, Evangelia Kirou, Lindsay Nelligan, and Donna Dennis, "Developmental Milestones for Productivity Occupations in Children and Youth: An Integrative Review," *Work* 56, no. 1 (February 2017): 75–89. <https://doi.org/10.3233/WOR-162466>.
- 71 Adolph et al., "Crawling Versus Walking Infants' Perception of Affordances for Locomotion Over Sloping Surfaces".

## ENDNOTES

- 72 Adolph et al., “Crawling Versus Walking Infants’ Perception of Affordances for Locomotion Over Sloping Surfaces”.
- 73 Rochat, “Mouthing and Grasping in Neonates”; Greg D. Reynolds, and Kelly C. Roth, “The Development of Attentional Biases for Faces in Infancy: A Developmental Systems Perspective,” *Frontiers in Psychology* 9, no. 222 (February 2018): 1–16. <https://doi.org/10.3389/fpsyg.2018.00222>.
- 74 Jan P. Piek, *Infant Motor Development*, Vol. 10 (Champaign, IL: Human Kinetics, 2006).
- 75 WHO Multicentre Growth Reference Study Group and M. de Onis, “WHO Motor Development Study: Windows of Achievement for Six Gross Motor Development Milestones,” *Acta Paediatrica* 95, (2006): 86–95.
- 76 Piek, *Infant Motor Development*, Vol. 10.
- 77 M. Rhonda Folio, and Rebecca R. Fewell, *Peabody Developmental Motor Scales (PDMS-2): Examiner’s Manual*, 2nd ed. (Pro-Ed, 2000).
- 78 David Sexton, Marcia Lobman, and Jeff Oremland, “Learning Accomplishment Profile-Diagnostic Standardized Assessment (LAP-D),” *Diagnostique* 24, no. 1–4 (March 1999): 183–196. <https://doi.org/10.1177/153450849902401-416>.
- 79 Joseph F. Hagan, Judith S. Shaw, and Paula M. Duncan, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents Pocket Guide*, 4th ed. (Elk Grove Village, IL: American Academy of Pediatrics, 2017).
- 80 Marliese Kimmerle, Claudio L. Ferre, Kathleen A. Kotwica, and George F. Michel, “Development of Role-Differentiated Bimanual Manipulation During the Infant’s First Year,” *Developmental Psychobiology* 52, no. 2 (March 2010): 168–180. <https://doi.org/10.1002/dev.20428>.
- 81 Nathan J. Blum, Bruce Taubman, and Nicole Nemeth, “Relationship Between Age at Initiation of Toilet Training and Duration of Training: A Prospective Study,” *Pediatrics* 111, no. 4 (April 2003): 810–814. <https://doi.org/10.1542/peds.111.4.810>.
- 82 d’Entremont et al., “Developmental Milestones for Productivity Occupations in Children and Youth”.
- 83 Courtney E. Byrd-Williams, Elizabeth J. Camp, Patricia D. Mullen, Margaret E. Briley, and Deanna M. Hoelscher, “How Local and State Regulations Affect the Child Care Food Environment: A Qualitative Study of Child Care Center Directors’ Perspectives,” *ICAN: Infant Child Adolescent Nutrition* 7, no. 2 (2015): 99–106.
- 84 CAST, *Universal Design for Learning Guidelines*.

# BIBLIOGRAPHY

- Adolph, Karen E., Marion A. Eppler, and Eleanor J. Gibson. "Crawling Versus Walking Infants' Perception of Affordances for Locomotion Over Sloping Surfaces." *Child Development* 64, no. 4 (August 1993): 1158–1174. <https://doi.org/10.2307/1131332>.
- Ainsworth, Mary Salter. "The Development of Infant-Mother Attachment." Vol. 3 of *Review of Child Development Research*, edited by B. Caldwell and H. Ricciuti, 1–94. University of Chicago Press, 1973.
- Akhtar, Nameera, and Morton Ann Gernsbacher. "Joint Attention and Vocabulary Development: A Critical Look." *Language and Linguistics Compass* 1, no. 3 (May 2007): 195–207.
- Anthony, Jason L., and Christopher J. Lonigan. "The Nature of Phonological Awareness: Converging Evidence From Four Studies of Preschool and Early Grade School Children." *Journal of Educational Psychology* 96, no. 1 (March 2004): 43.
- Anthony, Jason L., and David J. Francis. "Development of Phonological Awareness." *Current Directions in Psychological Science* 14, no. 5 (October 2005): 255–259.
- Ashley, Jennifer, and Michael Tomasello. "Cooperative Problem-Solving and Teaching in Preschoolers." *Social Development* 7, no. 2 (December 2001): 143–163.
- Bates, Elizabeth, Philip S. Dale, and Donna Thal. "Individual Differences and Their Implications for Theories of Language Development." In *Handbook of Child Language*, edited by P. Fletcher and B. MacWhinney, 49–65. Oxford: Basil Blackwell, January 1995.
- Benedict, Helen. "Early Lexical Development: Comprehension and Production." *Journal of Child Language* 6, no. 2 (January 1979): 183–200.
- Bingham, Gary E. "Maternal Literacy Beliefs and the Quality of Mother-Child Book Reading Interactions: Associations With Children's Early Literacy Development." *Early Education and Development* 18, no. 1 (December 2007): 23–49.
- Blum, Nathan J., Bruce Taubman, and Nicole Nemeth. "Relationship Between Age at Initiation of Toilet Training and Duration of Training: A Prospective Study." *Pediatrics* 111, no. 4 (April 2003): 810–814. <https://doi.org/10.1542/peds.111.4.810>.
- Bowerman, Melissa, and Soonja Choi. "Shaping Meanings for Language: Universal and Language-Specific in the Acquisition of Spatial Semantic Categories." In *Language Acquisition and Conceptual Development*, edited by M. Bowerman and S. Levinson, 475–511. Cambridge University Press, 2001.
- Boyatzis, Chris J., and Malcolm W. Watson. "Preschool Children's Symbolic Representation of Objects Through Gestures." *Child Development* 64, no. 3 (June 1993): 729–735.
- Brannon, Elizabeth M., Donna Lutz, and Sara Cordes. "The Development of Area Discrimination and Its Implications for Number Representation in Infancy." *Developmental Science* 9, no. 6 (November 2006): F59–F64.
- Burkhardt-Reed, Megan M., Helen L. Long, Dale D. Bowman, Edina R. Bene, and D. Kimbrough Oller. "The Origin of Language and Relative Roles of Voice and Gesture in Early Communication Development." *Infant Behavior and Development* 65 (November 2021): 101648.
- Byrd-Williams, Courtney E., Elizabeth J. Camp, Patricia D. Mullen, Margaret E. Briley, and Deanna M. Hoelscher. "How Local and State Regulations Affect the Child Care Food Environment: A Qualitative Study of Child Care Center Directors' Perspectives." *ICAN: Infant Child Adolescent Nutrition* 7, no. 2 (April 2015): 99–106.
- Caruso, David A. "Dimensions of Quality in Infants' Exploratory Behavior: Relationships to Problem-Solving Ability." *Infant Behavior and Development* 16, no. 4 (October-December 1993): 441–454.
- CAST. Universal Design for Learning Guidelines version 2.2. 2018. <http://udlguidelines.cast.org>.
- Castro, Vanessa L., Yanhua Cheng, Amy G. Halberstadt, and Daniel Grühn. "EUREKA! A Conceptual Model of Emotion Understanding." *Emotion Review* 8 (July 2016): 258–268.
- Center on the Developing Child. *Enhancing and Practicing Executive Function Skills With Children From Infancy to Adolescence*. Harvard University, 2014.
- Center on the Developing Child. *InBrief: The Science of Early Childhood Development* (video). Harvard University, 2007. <http://www.developingchild.harvard.edu>.
- Chen, Xiaoyun, Katherine E. Twomey, and Gert Westermann. "Curiosity Enhances Incidental Object Encoding in 8-Month-Old Infants." *Journal of Experimental Child Psychology* 223 (November 2022): 105508.

## BIBLIOGRAPHY

- Choi, Ji Young, Sherri Castle, Amy C. Williamson, Emisha Young, Lauren Worley, Melissa Long, and Diane M. Horm. "Teacher–Child Interactions and the Development of Executive Function in Preschool-Age Children Attending Head Start." *Early Education and Development* 27, no. 6 (January 2016): 751–769.
- Clements, Douglas H., and Julie Sarama. *Learning and Teaching Early Math: The Learning Trajectories Approach*. Routledge, 2014.
- Clements, Douglas H., and Michelle Stephan. "Measurement in Pre-K to Grade 2 Mathematics." In *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education*, edited by D. H. Clements and J. Sarama, 299–317. Routledge, 2004.
- Clements, Douglas H., Sudha Swaminathan, Mary Anne Zeiter Hannibal, and Julie Sarama. "Young Children's Concepts of Shape." *Journal for Research in Mathematics Education* 30, no. 2 (March 1999): 192–212.
- Corkum, Valerie, and Chris Moore. "The Origins of Joint Visual Attention in Infants." *Developmental Psychology* 34, no. 1 (February 1998): 28–38. <https://doi.org/10.1037/0012-1649.34.1.28>.
- Cortazar, Alejandra, and Francisca Herreros. "Early Attachment Relationships and the Early Childhood Curriculum." *Contemporary Issues in Early Childhood* 11, no. 2 (June 2010): 192–202.
- DeCasper, Anthony J., and William P. Fifer. "Of Human Bonding: Newborns Prefer Their Mothers' Voices." *Science* 208, no. 4448 (June 1980): 1174–1176.
- DeLoache, Judy S. "Dual Representation and Young Children's Use of Scale Models." *Child Development* 71, no. 2 (March 2000): 329–338.
- DeLoache, Judy S., Sophia L. Pierroustakos, David H. Uttal, Karl S. Rosengren, and Alma Gottlieb. "Grasping the Nature of Pictures." *Psychological Science* 9, no. 3 (May 1998): 205–210.
- Diamond, Adele. "The Early Development of Executive Functions." In *Lifespan Cognition: Mechanisms of Change*, edited by E. Bialystok and F. I. M. Craik, 70–95. Oxford University Press, 2006.
- Duursma, Elisabeth, Marilyn Augustyn, and Barry Zuckerman. "Reading Aloud to Children: The Evidence." *Archives of Disease in Childhood* 93, no. 7 (August 2008): 554–557.
- Dyson, Anne. "Negotiating Among Multiple Worlds: The Space/Time Dimensions of Young Children's Composing." *Research in the Teaching of English* 22, no. 4 (May 1988): 355–390.
- Dyson, Anne. "The Role of Oral Language in Early Writing Processes." *Research in the Teaching of English* 17, no. 1 (February 1983): 1–30.
- Ehri, Linnea C., Simone R. Nunes, Dale M. Willows, Barbara Valeska Schuster, Zohreh Yaghoub-Zadeh, and Timothy Shanahan. "Phonemic Awareness Instruction Helps Children Learn to Read: Evidence From the National Reading Panel's Meta-Analysis." *Reading Research Quarterly* 36, no. 3 (November 2001): 250–287.
- Elder, Joy L., and David R. Pederson. "Preschool Children's Use of Objects in Symbolic Play." *Child Development* 49, no. 2 (June 1978): 500–504.
- Ellis, Shari, and Robert S. Siegler. "Development of Problem Solving." In *Thinking and Problem Solving*, edited by R. J. Sternberg, 333–367. Academic Press, 1994.
- Fabes, Richard A., Bridget M. Gaertner, and Tierney K. Popp. "Getting Along With Others: Social Competence in Early Childhood." In *Blackwell Handbook of Early Childhood Development*, edited by Kathleen McCartney and Deborah Phillips, 297–316. Oxford: Blackwell, 2006.
- Farver, Jo Ann M. "Communicating Shared Meaning in Social Pretend Play." *Early Childhood Research Quarterly* 7, no. 4 (December 1992): 501–516. [https://doi.org/10.1016/0885-2006\(92\)90047-3](https://doi.org/10.1016/0885-2006(92)90047-3).
- Fivush, Robyn. "The Development of Autobiographical Memory." *Annual Review of Psychology* 62 (July 2011): 559–582.
- Folio, M. Rhonda, and Rebecca R. Fewell. *Peabody Developmental Motor Scales (PDMS-2): Examiner's Manual*. 2nd ed. Pro-Ed, 2000.
- Frizelle, Pauline, Paul A. Thompson, Mihaela Duta, and Dorothy V. M. Bishop. "Assessing Children's Understanding of Complex Syntax: A Comparison of Two Methods." *Language Learning* 69, no. 2 (January 2019): 255–291.

## BIBLIOGRAPHY

- Fusaro, Maria, and Maureen C. Smith. "Preschoolers' Inquisitiveness and Science-Relevant Problem Solving." *Early Childhood Research Quarterly* 42 (March 2018): 119–127.
- Gilmore, John H., Weili Lin, Marcel W. Prasatwa, Christopher B. Looney, Y. Sampath K. Vesta, Rebecca C. Knickmeyer, Dianne D. Evans, J. Keith Smith, Robert M. Hamer, Jeffrey A. Lieberman, and Guido Gerig. "Regional Gray Matter Growth, Sexual Dimorphism, and Cerebral Asymmetry in the Neonatal Brain." *Journal of Neuroscience* 27 (February 2007): 1255–1260.
- Goldin-Meadow, Susan, Martin E. Seligman, and Rochel Gelman. "Language in the Two-Year Old." *Cognition* 4, no. 2 (1976): 189–202.
- Goldstein, Thalia R., and Matthew D. Lerner. "Dramatic Pretend Play Games Uniquely Improve Emotional Control in Young Children." *Developmental Science* 21, no. 4 (July 2018): e12603.
- Golinkoff, Roberta M., and Kathy Hirsh-Pasek. *How Babies Talk: The Magic and Mystery of Language in the First Three Years of Life*. New York: Plume, July 2000.
- Graf, Frauke, Sonja Borchert, Bettina Lamm, Claudia Goertz, Thorsten Kolling, Ina Fassbender, Manuel Teubert, Marc Vierhaus, Claudia Freitag, Sibylle Spangler, Heidi Keller, Arnold Lohaus, Gudrun Schwarzer, and Monika Knopf. "Imitative Learning of Nso and German Infants at 6 and 9 Months of Age: Evidence for a Cross-Cultural Learning Tool." *Journal of Cross-Cultural Psychology* 45, no. 1 (January 2014): 47–61.
- Gussin Paley, Vivian. *A Child's Work: The Importance of Fantasy Play*. University of Chicago Press, 2009.
- Hagan, Joseph F., Judith S. Shaw, and Paula M. Duncan, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents Pocket Guide*. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2017.
- Håkansson, Gisela, and Kristina Hansson. "Comprehension and Production of Relative Clauses: A Comparison Between Swedish Impaired and Unimpaired Children." *Journal of Child Language* 27, no. 2 (October 2000): 313–333.
- Harris, Justin, Roberta Michnick Golinkoff, and Kathy Hirsh-Pasek. "Lessons From the Crib for the Classroom: How Children Really Learn Vocabulary." In *Handbook of Early Literacy Research*, Vol. 3, edited by S. B. Neuman and D. K. Dickinson, 49–65. New York: The Guildford Press, October 2011.
- Hickling, Anne K., and Henry M. Wellman. "The Emergence of Children's Causal Explanations and Theories: Evidence From Everyday Conversation." *Developmental Psychology* 37, no. 5 (September 2001): 668–683.
- Hudson, Judith A., Lauren R. Shapiro, and Brandi B. Sosa. "Planning in the Real World: Preschool Children's Scripts and Plans for Familiar Events." *Child Development* 66, no. 4 (August 1995): 984–998.
- Hudson, Judith A., Brandi B. Sosa, and Lauren R. Shapiro. "Scripts and Plans: The Development of Preschool Children's Event Knowledge and Event Planning." In *The Developmental Psychology of Planning: Why, How, and When Do We Plan?* edited by S. L. Friedman and E. K. Scholnick, 77. Psychology Press, 2014.
- Hustad, Katherine C., Tristan Mahr, Phoebe E. M. Natzke, and Paul J. Rathouz. "Development of Speech Intelligibility Between 30 and 47 Months in Typically Developing Children: A Cross-Sectional Study of Growth." *Journal of Speech, Language, and Hearing Research* 63, no. 6 (June 2020): 1675–1687. [https://doi.org/10.1044/2020\\_JSLHR-20-00008](https://doi.org/10.1044/2020_JSLHR-20-00008).
- Iverson, Jana M., and Esther Thelen. "Hand, Mouth and Brain. The Dynamic Emergence of Speech and Gesture." *Journal of Consciousness Studies* 6, no. 11–12 (November 1999): 19–40.
- Izard, Carroll E. "Basic Emotions, Natural Kinds, Emotion Schemas, and a New Paradigm." *Perspectives on Psychological Science* 2 (September 2007): 260–280.
- Izard, Carroll E. "Emotion Knowledge and Emotion Utilization Facilitate School Readiness." *Social Policy Report* 16 (2002): 7.
- Jones, Damon E., Mark Greenberg, and Max Crowley. "Early Social-Emotional Functioning and Public Health: The Relationship Between Kindergarten Social Competence and Future Wellness." *American Journal of Public Health* 105 (February 2015): 2283–2290.
- Jones, Susan S. "Imitation in Infancy: The Development of Mimicry." *Psychological Science* 18, no. 7 (July 2007): 593–599.
- Justice, Laura M., and Amy E. Sofka. *Engaging Children With Print: Building Early Literacy Skills Through Quality Read-Alouds*. New York: The Guildford Press, February 2010.

## BIBLIOGRAPHY

- Kalkusch, Isabelle, Ann-Kathrin Jaggy, Carine Burkhardt Bossi, Barbara Weiss, Fabio Sticca, and Sonja Perren. "Promoting Social Pretend Play in Preschool Age: Is Providing Roleplay Material Enough?" *Early Education and Development* 32, no. 8 (November 2021): 1136–1152.
- Kaller, Christoph P., Benjamin Rahm, Joachim Spreer, Irina Mader, and Josef M. Unterrainer. "Thinking Around the Corner: The Development of Planning Abilities." *Brain and Cognition* 67 (August 2008): 360–370.
- Keen, Rachel. "The Development of Problem Solving in Young Children: A Critical Cognitive Skill." *Annual Review of Psychology* 62 (January 2011): 1–21.
- Kim, Sojung, Haesung Im, and Kyong-Ah Kwon. "The Role of Home Literacy Environment in Toddlerhood in Development of Vocabulary and Decoding Skills." *Child Youth Care Forum* 44 (February 2015): 835–852.
- Kimmerle, Marliese, Claudio L. Ferre, Kathleen A. Kotwica, and George F. Michel. "Development of Role-Differentiated Bimanual Manipulation During the Infant's First Year." *Developmental Psychobiology* 52, no. 2 (February 2010): 168–180.  
<https://doi.org/10.1002/dev.20428>.
- Kisilevsky, Barbara S., Sylvia M. J. Hains, Kang Lee, Xing Xie, Hefeng Huang, Hai Hui Ye, Ke Zhang, and Zengping Wang. "Effects of Experience on Fetal Voice Recognition." *Psychological Science* 14, no. 3 (May 2003): 220–224.
- Lancaster, Lesley. "Moving Into Literacy: How It All Begins." In *Handbook of Early Childhood Literacy*, edited by N. Hall, J. Larson, and J. Marsh, 145–153. New York: SAGE, 2003.
- Lancy, David F. "Learning 'From Nobody': The Limited Role of Teaching in Folk Models of Children's Development." *Childhood in the Past* 3 (July 2010): 79–106.
- Legare, Cristine H. "The Contributions of Explanation and Exploration to Children's Scientific Reasoning." *Child Development Perspectives* 8, no. 2 (July 2014): 101–106.
- Lester, Barry M., and Philip Sanford Zeskind. "A Biobehavioral Perspective on Crying in Early Infancy." In *Theory and Research in Behavioral Pediatrics: Vol. 1*, edited by H. E. Fitzgerald, B. M. Lester, and M. W. Yogman, 133–180. New York: Springer, October 1984.
- Li-Grining, Christine P., Elizabeth Votruba-Drzal, Carolina Maldonado-Carreño, and Kelly Haas. "Children's Early Approaches to Learning and Academic Trajectories Through Fifth Grade." *Developmental Psychology* 46 (September 2010): 1062–1077.
- Lillard, Angeline, Ashley M. Pinkham, and Eric Smith. "Pretend Play and Cognitive Development." In *The Wiley-Blackwell Handbook of Childhood Cognitive Development*, edited by U. Goswami, 285–311. New York: Wiley-Blackwell, 2011.
- May, Lillian, Krista Byers-Heinlein, Judit Gervain, and Janet F. Werker. "Language and the Newborn Brain: Does Prenatal Language Experience Shape the Neonate Neural Response to Speech?" *Frontiers in Psychology* 2 (September 2011): 222.
- McKinsey Crittenden, Patricia. "A Dynamic-Maturational Approach to Continuity and Change in Patterns of Attachment." In *The Organization of Attachment Relationships*, edited by Patricia McKinsey Crittenden and Angelika Hartl Claussen, 343–358. Cambridge University Press, 2000.
- McRae, Kateri, and James J. Gross. "Emotion Regulation." *Emotion* 20 (February 2020): 1.
- Mills, Candice M., Cristine H. Legare, Megan Bills, and Caroline Mejias. "Preschoolers Use Questions as a Tool to Acquire Knowledge From Different Sources." *Journal of Cognition and Development* 11, no. 4 (October 2010): 533–560.
- Mintz, Toben H., and Lila R. Gleitman. "Adjectives Really Do Modify Nouns: The Incremental and Restricted Nature of Early Adjective Acquisition." *Cognition* 84 (July 2002): 267–293.
- Miyake, Akira, and Naomi P. Friedman. "The Nature and Organization of Individual Differences in Executive Functions: Four General Conclusions." *Current Directions in Psychological Science* 21 (February 2012): 8–14.
- Muentener, Paul, and Elizabeth Bonawitz. "The Development of Causal Reasoning." In *Oxford Handbook of Causal Reasoning*, edited by M. Waldmann, 677–698. Oxford University Press, 2018.
- Nelson, Katherine. "Some Attributes of Adjectives Used by Young Children." *Cognition* 4, no. 1 (January 1976): 13–30.



## BIBLIOGRAPHY

- Nowakowski, Richard S. "Stable Neuron Numbers From Cradle to Grave." *Proceedings of the National Academy of Sciences of the United States of America* 103 (August 2006): 12219–12220.
- Ornstein, Peter A., and Catherine A. Haden. "Memory Development or Development of Memory?" *Current Directions in Psychological Science* 10 (December 2001): 202–205.
- Özçalışkan, Şeyda, Dedre Gentner, and Susan Goldin-Meadow. "Do Iconic Gestures Pave the Way for Children's Early Verbs?" *Applied Psycholinguistics* 35, no. 6 (November 2014): 1143–1162.
- Papic, Marina, and Joanne Mulligan. "The Growth of Early Mathematical Patterning: An Intervention Study." In *Vol. 2 of Proceedings of the 30th Annual Conference of the Mathematics Education Research Group of Australasia. Mathematics: Essential Research, Essential Practice*, edited by J. Watson and K. Beswick, 591–600. MERGA, 2007.
- Parten, M. B. "Social Play Among Preschool Children." *The Journal of Abnormal and Social Psychology* 28, no. 2 (July 1933): 136–147. <https://doi.org/10.1037/h0073939>.
- Peterson, Carole, and Allyssa McCabe. "A Social Interactionist Account of Developing Decontextualized Narrative Skill." *Developmental Psychology* 30, no. 6 (November 1994): 937–948.
- Phillips, Beth M., Shayne B. Piasta, Jason L. Anthony, Christopher Lonigan, and David J. Francis. "IRTs of the ABCs: Children's Letter Name Acquisition." *Journal of School Psychology* 50, no. 4 (May 2012): 461–481.
- Piek, Jan P., *Infant Motor Development*. Vol. 10. Champaign, IL: Human Kinetics, 2006.
- Rakic, Pasko. "No More Cortical Neurons For You." *Science* 313 (August 2006): 928–929.
- Raver, C. Cybele. "Emotions Matter: Making the Case for the Role of Young Children's Emotional Development for Early School Readiness." *Social Policy Report* 16 (September 2002): 3–18.
- Reilly, Sheena, Patricia Eadie, Edith L. Bavin, Melissa Wake, Margot Prior, Joanne Williams, Lesley Bretherton, Yin Barrett, and Obioha C. Ukoumunne. "Growth of Infant Communication Between 8 and 12 Months: A Population Study." *Journal of Paediatrics and Child Health* 42, no. 12 (December 2006): 764–770.
- Reynolds, Greg D., and Kelly C. Roth. "The Development of Attentional Biases for Faces in Infancy: A Developmental Systems Perspective." *Frontiers in Psychology* 9, no. 222 (February 2018): 1–16. <https://doi.org/10.3389/fpsyg.2018.00222>.
- Rice, Mabel L., Filip Smolik, Denise Perpich, Travis Thompson, Nathan Rytting, and Megan Blossom. "Mean Length of Utterance Levels in 6-Month Intervals for Children 3 to 9 Years With and Without Language Impairments." *Journal of Speech, Language, and Hearing Research* 53, no. 2 (April 2010): 333–349. [https://doi.org/10.1044/1092-4388\(2009/08-0183\)](https://doi.org/10.1044/1092-4388(2009/08-0183)).
- Rittle-Johnson, Bethany, Erica L. Zippert, and Katherine L. Boice. "The Roles of Patterning and Spatial Skills in Early Mathematics Development." *Early Childhood Research Quarterly* 46 (1st Quarter 2019): 166–178. <https://doi.org/10.1016/j.jecresq.2018.03.006>.
- Rochat, Philippe. "Mouthing and Grasping in Neonates: Evidence for the Early Detection of What Hard or Soft Substances Afford for Action." *Infant Behavior and Development* 10, no. 4 (October–December 1987): 435–449. [https://doi.org/10.1016/0163-6383\(87\)90041-5](https://doi.org/10.1016/0163-6383(87)90041-5).
- Roopnarine, Jaipaul L., and Kimberly L. Davidson. "Parent–Child Play Across Cultures: Advancing Play Research." *American Journal of Play* 7 (Winter 2015): 228–252.
- Rowe, Meredith L. "Decontextualized Language Input and Preschoolers' Vocabulary Development." *Seminars in Speech and Language* 34, no. 4 (November 2013): 260–266.
- Rowe, Deborah Wells, and Carin Neitzel. "Interest and Agency in 2- and 3-Year-Olds' Participation in Emergent Writing." *Reading Research Quarterly* 45, no. 2 (April/May/June 2010): 169–195.
- Ruba, Ashley L., and Seth D. Pollak. "The Development of Emotion Reasoning in Infancy and Early Childhood." *Annual Review of Developmental Psychology* 2 (December 2020): 503–531.
- Sarnecka, Barbara W., and Susan Carey. "How Counting Represents Number: What Children Must Learn and When They Learn It." *Cognition* 108, no. 3 (September 2008): 662–674.

## BIBLIOGRAPHY

- Schulz, Laura. "Finding New Facts; Thinking New Thoughts." *Advances in Child Development and Behavior* 43 (January 2012a): 269–294.
- Schulz, Laura. "The Origins of Inquiry: Inductive Inference and Exploration in Early Childhood." *Trends in Cognitive Sciences* 16, no. 7 (July 2012b): 382–389.
- Sexton, David, Marcia Lobman, and Jeff Oremland. "Learning Accomplishment Profile-Diagnostic Standardized Assessment (LAP-D)." *Diagnostique* 24, no. 1–4 (March 1999): 183–196. <https://doi.org/10.1177/153450849902401-416>.
- Shanahan, Timothy, and Christopher J. Lonigan. "The National Early Literacy Panel: A Summary of the Process and the Report." *Educational Researcher* 39, no. 4 (May 2010): 279–285.
- Smith, Linda B., Swapnaa Jayaraman, Elizabeth Clerkin, and Chen Yu. "The Developing Infant Creates a Curriculum for Statistical Learning." *Trends in Cognitive Sciences* 22 (April 2018): 325–336.
- Sobel, David M., and Cristine H. Legare. "Causal Learning in Children." *WIREs Cognitive Science* 5, no. 4 (July 2014): 413–427.
- Spiegel, Jamie A., J. Marc Goodrich, Brittany M. Morris, Colleen M. Osborne, and Christopher J. Lonigan. "Relations Between Executive Functions and Academic Outcomes in Elementary School Children: A Meta-Analysis." *Psychological Bulletin* 147 (April 2021): 329–351.
- Stephens, Gemma, and Danielle Matthews. "The Communicative Infant." In *Pragmatic Development in First Language Acquisition*, edited by D. Matthews, 13–36. Amsterdam: John Benjamins, June 2014.
- Storch, Stacey A., and Grover J. Whitehurst. "Oral Language and Code-Related Precursors to Reading: Evidence From a Longitudinal Structural Model." *Developmental Psychology* 38, no. 6 (December 2002): 934–947.
- Strang, Tara M., and Shayne B. Piasta. "Socioeconomic Differences in Code-Focused Emergent Literacy Skills." *Reading and Writing* 29, no. 7 (March 2016): 1337–1362.
- Sulzby, Elizabeth, and William H. Teale. "Writing Development in Early Childhood." *Educational Horizons* 64, no. 1 (Fall 1985): 8–12.
- Tamis-LeMonda, Catherine S., Irene Nga-Lam Sze, Florrie Fei-Yei Ng, Ronit Kahana-Kalman, and Hirokazu Yoshikawa. "Maternal Teaching During Play With Four-Year-Olds: Variation by Ethnicity and Family Resources." *Merrill-Palmer Quarterly* 59 (July 2013): 361–398.
- Tardif, Twila, Paul Fletcher, Weilan Liang, Zhixiang Zhang, Niko Kaciroti, and Virginia A. Marchman. "Baby's First 10 Words." *Developmental Psychology* 44, no. 4 (March 2008): 929.
- Thompson, Ross A., Marc D. Lewis, and Susan D. Calkins. "Reassessing Emotion Regulation." *Child Development Perspectives* 2 (December 2008): 124–131.
- Tincoff, Ruth, and Peter W. Jusczyk. "Some Beginnings of Word Comprehension in 6-Month-Olds." *Psychological Science* 10, no. 2 (March 1999): 172–175.
- Tominey, Shauna L., Elisabeth C. O'Bryon, Susan E. Rivers, and Sharon Shapses. "Teaching Emotional Intelligence in Early Childhood." *YC Young Children* 72 (March 2017): 6–14.
- Tran, Crystal D., Maria M. Arredondo, and Hanako Yoshida. "Early Executive Function: The Influence of Culture and Bilingualism." *Bilingualism* 22 (August 2019): 714–732.
- Tribushinina, Elena. "Adjective Semantics, World Knowledge and Visual Context: Comprehension of Size Terms by 2- to 7-Year-Old Dutch-Speaking Children." *Journal of Psycholinguistic Research* 42, no. 3 (June 2013): 205–225.
- Twomey, Katherine E., and Gert Westermann. "Curiosity-Based Learning in Infants: A Neurocomputational Approach." *Developmental Science* 21 (July 2018): e12629.
- van den Broek, Paul, Panayiota Kendeou, Sandra Lousberg, and Gootje Visser. "Preparing for Reading Comprehension: Fostering Text Comprehension Skills in Preschool and Early Elementary School Children." *International Electronic Journal of Elementary Education* 4, no. 1 (October 2011): 259–268.



# BIBLIOGRAPHY

- Vitiello, Virginia E., and Daryl B. Greenfield. "Executive Functions and Approaches to Learning in Predicting School Readiness." *Journal of Applied Developmental Psychology* 53 (November 2017): 1–9.
- Vöhringer, Isabel A., Thorsten Kolling, Frauke Graf, Sonja Poloczek, Ina Fassbender, Claudia Freitag, Bettina Lamm, Janina Suhrke, Johanna Teiser, Manuel Teubert, Heidi Keller, Arnold Lohaus, Gudrun Schwarzer, and Monika Knopf. "The Development of Implicit Memory From Infancy to Childhood: On Average Performance Levels and Interindividual Differences." *Child Development* 89, no. 2 (March 2018): 370–382.
- Warneken, Felix, Jasmin Steinwender, Katharina Hamann, and Michael Tomasello. "Young Children's Planning in a Collaborative Problem-Solving Task." *Cognitive Development* 31 (September 2014): 48–58.
- Waxman, Sandra R., and Raquel S. Klibanoff. "The Role of Comparison in the Extension of Novel Adjectives." *Developmental Psychology* 36, no. 5 (September 2000): 571.
- WHO Multicentre Growth Reference Study Group and M. de Onis. "WHO Motor Development Study: Windows of Achievement for Six Gross Motor Development Milestones." *Acta Paediatrica* 95, (April 2006): 86–95.
- Xu, Fei, and Elizabeth S. Spelke. "Large Number Discrimination in 6-Month-Old Infants." *Cognition* 74, no. 1 (January 2000): B1–B11.
- Yogman, Michael, Andrew Garner, Jeffery Hutchinson, Kathy Hirsh-Pasek, Roberta Michnick Golinkoff, Committee on Psychosocial Aspects of Child and Family Health, and Council on Communications and Media. "The Power of Play: A Pediatric Role in Enhancing Development in Young Children." *Pediatrics* 142, no. 3 (September 2018).
- Yu, Chen. "The Emergence of Links Between Lexical Acquisition and Object Categorization: A Computational Study." *Connection Science* 17, no. 3–4 (January 2005): 381–397.
- Zosh, Jennifer M., Kathy Hirsh-Pasek, Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, S. Lynne Solis, and David Whitebread. "Accessing the Inaccessible: Redefining Play as a Spectrum." *Frontiers in Psychology* 9 (August 2018): 1124.

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