

### **PREVIEW KIT**

## THE HIGHSCOPE infant-toddler curriculum

# Ready for school Since 1970

For 50 years we have helped children achieve school readiness in all areas of academic and social learning using the renowned HighScope approach and curriculum. We help early educators take the learning process beyond traditional academic subjects to foster child creativity, confidence, and independence to prepare children for success in school and in life. This approach to early education has been proven to achieve powerful, positive results.

Play based, child centered, and grounded in research: Take a closer look at how HighScope can help you make sure that every child enters school ready and eager to learn.

#### **THE HIGHSCOPE**

# Infant-Toddler Curriculum

A comprehensive curriculum grounded in current research. The HighScope Infant-Toddler Curriculum is designed to support and guide you to build trusting relationships with your youngest learners so they feel confident to explore and exercise their creative imagination through purposeful play.

Infant -Toddler Curriculum includes:

- The Essentials
- 2 The Learning Environment
- **3 Intentional Planning**

Infant-Toddler | F2107SET | \$315

# Three steps to successful implementation

We realize that choosing the right curriculum for your program is an important decision. This is why we've made it easier than ever to get started using the HighScope Infant-Toddler Curriculum.

This collection of curriculum resources has been thoughtfully created to support early childhood educators and ensure that the transition to the HighScope Curriculum is successful and effective.

We've taken the best of our resources and put them in a simple step-by-step approach so your program can immediately begin creating a child-centered learning environment with a high level of engagement, exploration, and enthusiasm.

## The HighScope Curriculum is filled with everything teachers love.



curriculum resources



Engaging classroom materials and supports

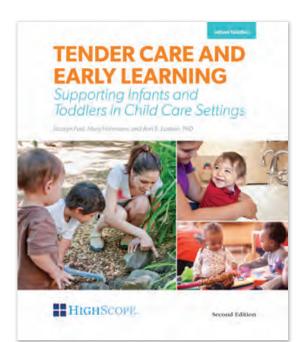


Detailed activities with practical guidance

### INFANT-TODDLER CURRICULUM THE ESSENTIALS

These resources guide teachers through the process of creating high-quality experiences for infants and toddlers, using HighScope's active learning approach and six curriculum content areas of early learning. This comprehensive curriculum offers specific strategies for nurturing and supporting infant and toddler development in an active learning, child-centered environment.

- Tender Care and Early Learning: Supporting Infants and Toddlers in Child Care Settings, 2nd Ed.
- Infant-Toddler Wheel of Learning/Key Developmental Indicators Card
- Lesson Plans for a Strong Start: The First 30 Days for Infants
- Lesson Plans for a Strong Start: The First 30 Days for Toddlers



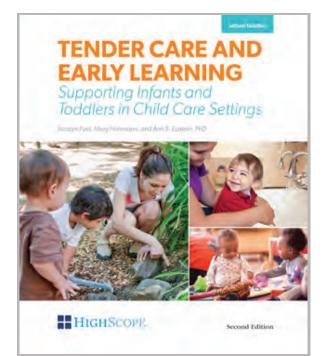




"HighScope's approach to teaching the whole child through active learning and understanding how children use their bodies as their first learning tool has changed the way I work with children."

Program Director, WY

### Tender Care and Early Learning: Supporting Infants and Toddlers in Child Care Settings, 2nd Ed.



This comprehensive book guides you through curriculum content for HighScope's six curriculum content areas and offers specific strategies for HighScope's approach to nurturing and supporting infant and toddler development in an active learning, child-centered environment. **PREVIEW** Tender Care and Early Learning

## Introduction: The HighScope Infant-Toddler Curriculum

Two principles are central to the HighScope Curriculum. The first is that children construct their understanding of the world from their active involvement with people, materials, and ideas. The second principle...is that the role of adults who teach and care for children is to support children's construction of their own understanding of the world.

- Powell (1991, p. 26)

ince the 1960s, early childhood professionals around the nation have been using the HighScope Curriculum with preschool children (three- and four-yearolds) (Epstein, 2014; Hohmann, Weikart, & Epstein, 2008). Although HighScope's work with infants and toddlers (ages birth to three) also began in the 1960s, questions about how to support active learning with very young children multiplied in the 1990s. Searching for and finding answers to these questions resulted in the first edition of this book, Tender Care and Early Learning: Supporting Infants and Toddlers in Child Care Settings (Post & Hohmann, 2000). That book represented what we knew to date about implementing the HighScope Infant-Toddler Curriculum in child care settings.

In the decade since the publication of Tender Care and Early Learning, the field's knowledge about the earliest years of life has grown enormously. Discoveries in brain research, for example, empirically support what caregivers and teachers intuitively sensed about the role of early experience in later development. Systematic program evaluations have provided new insights into how the quality of care can affect young children's socialemotional growth and intellectual progress. In addition, group care for infants and toddlers has become a fact of life in today's world, in which increasing numbers of employed parents must find out-of-home care for their young children.

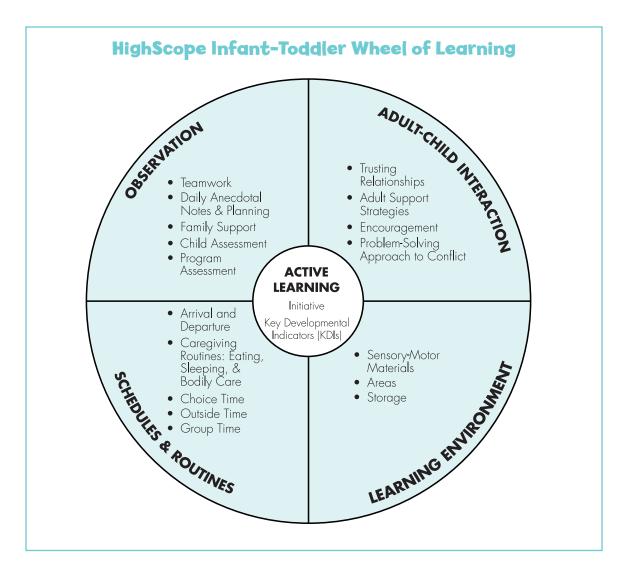
This second edition of *Tender Care and Early Learning* updates the theoretical and research information on infant and toddler development. Since the first book was written, HighScope itself has actively contributed to the ongoing transformation of the field as a whole. Our early childhood specialists now deliver a systematic and comprehensive course of training workshops for caregivers and supervisors, observe in and consult with a wide variety of program settings, and train others to use the validated child and program assessment tools we have developed. We publish print and audiovisual materials to support the implementation of high-quality programs in the United States and abroad.

In sum, the HighScope Infant-Toddler Curriculum has reaffirmed its core principles while simultaneously refining its content as a result of this engagement. We have learned a great deal by reflecting on our interactions with home visitors and with the many practitioners who are effectively nurturing and educating infants and toddlers in centers and family child care homes. (See the Appendix for a historical overview of HighScope and its work with infants and toddlers.)

This book captures the lessons learned by researchers and practitioners everywhere and from HighScope's direct involvement in the growing and vital field of infant and toddler programs.

#### Principles Guiding the HighScope Infant-Toddler Curriculum

The HighScope infant-toddler wheel of learning (p. 3) graphically represents the major ideas that guide the HighScope



Infant-Toddler Curriculum: active learning for children; warm, supportive adult-child interaction; a welcoming, child-oriented learning environment; schedules and routines that flow with the children; daily child observation that guides caregivers' interactions with children, caregivers' teamwork, caregiver-parent partnerships, and program planning; and ongoing and valid assessment of children and programs to ensure that program goals to support early learning and deliver high-quality services are being met.

#### **Active learning**

Infants and toddlers are active learners from birth. Through their ongoing relationships with people and their explorations of the materials in their immediate world, they figure out how to move at will; how to hold and act on objects; and how to communicate and interact with parents,







In HighScope infant-toddler programs, active learning flows from children's trusting relationships with adults. Tender care and support for early learning are provided by adult teamwork, an engaging environment, and child-centered schedules and routines.

family members, peers, and caregivers. As active learners, infants and toddlers watch, reach for, and grasp people and materials that particularly attract their attention. They choose objects and people to play with and explore, initiate actions that particularly interest them, and respond to various events in their environment. Through their own unique combination of gestures, facial expressions, noises, and (eventually) words, they communicate their feelings and ideas. Throughout their explorations, they rely on parents and caregivers to attend to, support, and build on their actions, choices, and ways of communicating.

When surrounded by adults - parents, other family members, teachers — who understand the very young child's need to explore and thus build understanding, infants and toddlers develop a sense of trust in themselves and others that enables them to become curious, autonomous learners. They initiate their own "voyages of discovery" off the blanket and into the next room, driven by the desire to see what interesting people and things might lie around the corner. Even the most adventurous active learners, however, return from time to time to "home base," that trusting and trusted adult, to assure themselves that comfort and safety are well within their reach.

The *key developmental indicators* (*KDIs*) represent what infants and toddlers discover in their daily learning adventures. Individual **approaches to learning** begin to emerge as they encounter and

solve problems in play (Maybe I can reach that rattle if I roll over onto my stomach). Children's social and emotional development proceeds as they gain a sense of self (a realization that they are separate from others) and form relationships (This is my mom; Sara is my friend). In the area of physical development and health, young children move their bodies for sheer pleasure and also to serve their purposes (I can crawl to that other baby). Initiating and responding to verbal interactions and exploring picture books are early signs of emerging abilities in communication, language, and literacy.

Cognitive development involves exploration to discover how the world works. For example, children signal their understanding of the concept "more" (with words, gestures, or sign language), discover similarities and differences between objects (*These roll away*; those do not), and observe cause and effect (*When I poke the bubble, it bursts*).

In the **creative arts**, children work with building and collage materials, begin to engage in pretend play, and sway to different types of music.

Active learning is the axle on which the HighScope wheel of learning turns. In active learning settings, adults support children's initiatives and desire to explore with all their senses. They understand that children's self-motivated explorations, supported by knowledgeable caregivers, lead to meaningful learning experiences in all the content areas that are key to healthy human growth and development.



Developing trusting relationships with adults is critical for young children at child care settings.

#### Adult-child interaction

Infants and toddlers are explorers. To gather the strength and courage they need to go forth each day, they rely on the support of their parents and teachers. Their interactions with trusted adults at home and away from home provide the emotional fuel infants and toddlers need to puzzle out the mysteries of the social and physical world.

Because *trusting relationships* are so important, programs strive to ensure that each infant or toddler in a child care center or home has the same primary caregiver or teacher throughout enrollment, whether that be for six months or three years. (See "Caregivers and Teachers" on p. 7 for a discussion of the terms used in this book.) In settings with multiple caregivers, each one is the "primary" for only a small group of children, and the staff form a stable team that provides long-term continuity of care for children and families.

Caregivers strive to form positive, reciprocal relationships with children relationships in which *encouragement* is the key. They cuddle, hold, play, and talk with children in a warm, unhurried, give-and-take manner. They establish a psychologically safe environment, where children's initiatives are regarded as purposeful rather than naughty or bothersome for adults.

Guided by practical theories of child development, teachers and caregivers attempt to see things from the child's point of view, encourage rather than thwart children's efforts and communications, take cues from children rather than impose their own ideas, and assume a *problem-solving approach* to children's interpersonal conflicts rather than punish children or solve their problems for them.

Very young children are just formulating a sense of themselves and an understanding of what the rest of the world is all about. As they are doing so, interactions with parents, teachers, and other significant adults influence the lifelong conclusions children draw from their experiences. For example, if parents' and caregivers' interactions are supportive, this shapes children's perceptions of themselves as capable, trusted, and trustworthy human beings. If teachers share their excitement in discovery, children see their environment as an interesting place in which learning is inherently rewarding. Therefore, positive, consistent, ongoing *adult support* is critical in satisfying a child's need to actively explore and construct a personal understanding of the world.

#### Learning environment

Providing an active learning environment for infants and toddlers encourages their need to look, listen, wiggle, roll, crawl, climb, rock, bounce, rest, eat, make noise, grasp or mouth or drop things, and be messy from time to time. In a HighScope infant-toddler program, the physical space is safe, flexible, and child oriented to provide comfort and variety and to accommodate children's changing developmental needs and interests. It includes a wide variety of sensory-motor materials infants and toddlers can reach, explore, and play with in their own way at their own pace. The storage of these materials is consistent, personalized, and accessible so that infants and toddlers can reach or get to the materials they see and want to explore. The space and materials are organized into play and care areas that serve the needs of infants and toddlers. The diapering area, for example, may be located next

#### **Caregivers and Teachers**

The terms *caregiver* and *teacher* are used interchangeably throughout this book to emphasize two very important roles played by the adults who work with very young children. The primary role of adults who spend time with infants and toddlers is that of caregiver. It is essential that adults establish strong and secure relationships through the everyday caregiving routines and interactions they provide. However, all those who care for infants and toddlers inevitably educate them as well.

For example, effective caregivers converse with both nonverbal and verbal infants and toddlers, thereby laying the foundation for early language and literacy development. As they rock and sing to very young children, adults support their physical development and expose them to the arts. When adults ask children if they want "more" juice or "another" block or sheet of paper, they are providing early mathematical experiences in concepts about quantity. In all these ways, effective teachers engage children in the joys of mastering a wide variety of knowledge and skills. However, they always do so within the context of a warm and supportive environment in which they provide young children with nurturing care and trusting relationships.

Early learning is thus comprehensive and integrated. When we care for very young children, we inspire and encourage them to learn. When we teach very young children, we show that we care about their overall well-being. Caregiving and teaching cannot be separated. Infants and toddlers depend on us to provide and be consistent in carrying out both these roles. to a window that looks out onto a flower box or a bird feeder. The toddler block area includes a good supply of small and large blocks for satisfying stacking and balancing experiences. The learning environment, in short, is secure and inviting. Within its boundaries, infants and toddlers are free to move about, explore materials, exercise creativity, and solve problems.

#### **Schedules and routines**

In an active learning infant-toddler setting, schedules (the daily sequence of events such as choice time, lunch, outside time) and routines (caregiving interactions during *eating*, *sleeping*, and *bodily care*) are anchored, for each child, around a primary caregiver. Having this caregiver as a "home base" provides the very young child with a sense of security while away from home. Following children's cues and initiatives, caregivers, in partnership with parents, establish center schedules and routines that are consistent in order and interaction style so children can anticipate what happens next, yet flexible enough to accommodate children's individual rhythms and temperaments.

The schedules and routines are repetitive enough to enable children to explore, practice, and gain confidence in their developing skills, yet they allow children to move smoothly, at their own pace, from one interesting experience to another. Caregivers plan flexible, child-centered *group times.* They also work with parents to make *arrival* and *departure* leisurely and comforting. Children make choices about materials and actions throughout the day, and adults support and encourage children's initiatives during each time period and routine interaction. Altogether, caregivers design schedules and routines around children's needs and interests to give children a sense of control and belonging.

#### **Observation**

Child observation is an essential component of the HighScope Infant-Toddler Curriculum, since knowledge of individual children shapes not only the interactions caregivers have with children and parents but also the learning environment and the schedules and routines at the center. To observe and learn as much as possible from children, adults in infant-toddler centers rely on *teamwork*. Caregivers work as partners with parents to provide continuity of care between home and center.

Primary caregivers work together in teams for mutual support throughout the day; together, they provide *family support*; make decisions about space, materials, schedules, routines, and daily responsibilities; and discuss and plan around their daily observations of children. As they work "on the floor" with children, they collect daily anecdotal notes. At daily team-planning time, they discuss their observations of what individual children did and said that day, and they use these observations to guide their own behavior in supporting children the next day. They also exchange child observations with parents, both to celebrate children's

actions and development and to nurture a partnership with families, so children can be supported consistently at home and at the center.

The ongoing assessment of children and programs helps caregivers meet their goals for early learning through the delivery of high-quality services. Not only do *child assessment* and *program assessment* allow caregivers to determine what is happening with the children and families they serve, they also let them take stock of how well the program is operating and what steps they can take to improve caregiving practices and overall program management.

Caregivers and teachers often know instinctively when children are progressing and when they need extra support. Likewise, they may have an inner sense of their own and their colleagues' strengths and areas in need of improvement. However, systematic assessment helps to confirm and elaborate their impressions. Sometimes it even offers surprises and inspires caregivers and teachers to think in new ways about the development of individual children, the dynamics of the group, relationships with parents and coworkers, and their own professional advancement.

To permit the systematic assessment of children's progress and program implementation, respectively, HighScope has developed and validated two instruments: COR Advantage (the latest version of HighScope's Child Observation Record) and the Infant-Toddler Program Quality Assessment (PQA). Using these tools will help programs create an active learning environment in which young children and their caregivers can learn and flourish.

These guiding principles — active learning, supportive adult-child interaction, a child-oriented learning environment, schedules and routines that flow with the children, daily child observation to guide teamwork among staff and parents, and ongoing child and program assessment keep the HighScope infant-toddler wheel of learning turning. They also serve as a framework for this book, which elaborates on each of these six principles so caregivers in infant-toddler child care settings can put into practice the HighScope Infant-Toddler Curriculum.

#### Research-Based Curriculum

All HighScope infant-toddler curriculum materials and services are grounded in a profound respect for practitioners and parents and the primacy of their bond with the children in their care. These adults play a vital role as teachers in the broadest sense of that term. The curriculum and training model further reflect the constructivist theories pioneered by psychologist Jean Piaget (1952), the importance of scaffolding derived from the work of Lev Vygotsky (1934/1986), and the results of current cognitive-developmental research (e.g., Goswami, 2002; National Research Council, 2000; Smith, 2002).

Emerging findings about early brain development also support the active learning approach that is central to the



Providing infants with sensory experiences helps optimize the brain circuits that develop at that time.

curriculum's theory and practice (e.g., National Scientific Council on the Developing Child, 2004, 2007; Rushton, 2001; Shore, 2003; Zero to Three and the Ounce of Prevention Fund, 2000).

For example, *Starting Smart: How* Early Experiences Affect Brain Development (Zero to Three and the Ounce of Prevention Fund. 2000) describes how the trillions of neural connections babies are born with are selectively strengthened or pruned away in the early months and years of life. This process allows the developing child to keep and enhance the pathways that serve a useful purpose while eliminating those that are unnecessary or redundant. Because the brain becomes less "plastic" or changeable over time, it is important for the environment to provide infants and toddlers with key early experiences before critical "win-dows of opportunity" close. Language development offers a good illustration of this principle. The number and variety of words that children hear by the time they reach age three is a significant predictor of later literacy development (Hart & Risley, 1999).

Early environments and experiences have an exceptionally strong influence on the architecture and functioning of the brain. Different brain circuits mature at different points in development. Newborns need "basic sensory, social, and emotional experiences...for optimizing the architecture of low-level circuits" (National Scientific Council on the Developing Child, 2007, p. 4). The critical period for the low-level circuits responsible for sight and hearing, for example, ends early. By contrast, "more sophisticated kinds of experiences are critical for shaping higherlevel circuits," including the circuits that process communication signals (such

as language and the emotions in facial expressions), and end much later in development (p. 4).

Because both the timing and content of early experiences are important, those responsible for the care and education of very young children should neither underestimate nor overestimate what their brains are capable of processing. In keeping with the latest knowledge derived from theory, research, and practice, the content of the HighScope Infant-Toddler Curriculum is therefore organized around six areas that frame the timely and appropriate experiences that promote learning in all domains of development. These six content areas are approaches to learning; social and emotional development; physical development and health; communication, language, and literacy; cognitive development; and creative arts.

The KDIs in each content area reflect the physical, cognitive, affective, and social changes that occur during these early and critical years of human growth. (See Chapter 1 for a list of the KDIs in each of the content areas.)

#### How This Book Is Organized

This second edition of *Tender Care and Early Learning* starts in the middle of the infant-toddler wheel of learning, with active learning. The remaining chapters in this book then turn to each of the outer sections of the wheel and the overarching role of assessment: Chapter 1, "Active Learning and Key Developmental Indicators," describes how infants and toddlers learn through action and social relationships and introduces the KDIs as a way of seeing, understanding, supporting, and building on the broad range of things they learn about.

Chapter 2, "The Caregiving Team and Their Partnership With Parents," focuses on the elements of effective caregiving teams and caregiver-parent partnerships and describes strategies for working together to support infants' and toddlers' growth and development.

Chapter 3, "Supportive Adult-Child Interactions," discusses the role of the primary caregiver, continuity of care, and specific adult-child interaction strategies teachers and caregivers can use to nurture and support active learners.

Chapter 4, "Arranging and Equipping the Learning Environment," provides general guidelines for organizing active learning environments and specific strategies for selecting materials and arranging spaces to support the exploration and play of infants and toddlers.

Chapter 5, "Establishing Schedules and Routines," defines child-centered schedules and caregiving routines and discusses specific caregiver roles during each part of the day.

Chapter 6, "Child and Program Assessment," describes validated assessment tools for monitoring children's developmental progress and establishing and maintaining high-quality infant and toddler programs.

in her care shapes every aspect of the teacher's role and guides the decisions a program makes about staffing. Because trusting relationships are so vital, programs make every effort to ensure that caregivers work in teams, with each team member responsible for a small group of children who remain in her care from one year to the next as long as they are enrolled in the program setting. The continuity of care that arises from this arrangement supports the growth of trusting relationships between child and caregiver, between caregiver and families, and between caregivers themselves. For specific continuity-of-care strategies and how they support infant and toddler development, see Chapters 2 and 3.

#### Key Developmental Indicators: What Infants and Toddlers Learn

When all the elements of active learning are in place — materials to explore bodily, with all the senses; opportunities to make choices; opportunities to communicate discoveries and feelings; and the ongoing, responsive support of trusted adults — what do infants and toddlers actually learn? To answer this question, caregivers and parents in HighScope settings turn to a set of guidelines called *key developmental indicators (KDIs)*, which frame the content of early learning and development (see "HighScope Infant-Toddler Key Developmental Indicators" on p. 33).

Based on child observation, the HighScope KDIs for infants and toddlers provide a composite picture of what very young children do and what knowledge and abilities emerge from their actions. The six content areas that organize the KDIs parallel the dimensions of school readiness identified by the National Education Goals Panel (Kagan, Moore, & Bredekamp, 1995) and are also widely used as the basis for infant-toddler and preschool learning standards throughout the early childhood community. These six areas are approaches to learning; social and emotional development; physical development and health; communication, language, and literacy; cognitive development; and creative arts. Within these six content areas there are 42 KDIs that are appropriate and essential for infant and toddler learning.

The KDIs are also drawn from the same child development framework as COR Advantage (Epstein et al., 2014b), the birth-through-kindergarten child assessment tool that is used with the HighScope Curriculum and other developmentally appropriate infant-toddler programs.<sup>3</sup> A description of the KDIs and how teachers and caregivers use them follows. For more information on HighScope resources that support early learning of the KDIs in each content area, visit the HighScope online store at www.highscope.org.

#### Approaches to learning

Approaches to learning refers to how children go about acquiring knowledge

<sup>3</sup>Although there is not an exact correspondence, the infant-toddler KDIs described here are comparable to many of the COR Advantage assessment items.

#### HighScope Infant-Toddler Key Developmental Indicators

- A. Approaches to Learning
- 1. Initiative: Children express initiative.
- 2. Problem solving: Children solve problems encountered in exploration and play.
- **3. Self-help:** Children do things for themselves.
- B. Social and Emotional Development
- 4. Distinguishing self and others: Children distinguish themselves from others.
- 5. Attachment: Children form an attachment to a primary caregiver.
- 6. Relationships with adults: Children build relationships with other adults.
- 7. Relationships with peers: Children build relationships with peers.
- 8. Emotions: Children express emotions.
- **9. Empathy:** Children show empathy toward the feelings and needs of others.
- **10. Playing with others:** Children play with others.
- **11. Group participation:** Children participate in group routines.
- C. Physical Development and Health
- 12. Moving parts of the body: Children move parts of the body (turning head, grasping, kicking).
- **13. Moving the whole body:** Children move the whole body (rolling, crawling, cruising, walking, running, balancing).

- 14. Moving with objects:
- Children move with objects. **15. Steady beat:** Children feel
- and experience steady beat.
- D. Communication, Language, and Literacy
- **16. Listening and responding:** Children listen and respond.
- **17. Nonverbal communication:** Children communicate nonverbally.
- **18. Two-way communication:** Children participate in twoway communication.
- 19. Speaking: Children speak.
- **20. Exploring print:** Children explore picture books and magazines.
- 21. Enjoying language: Children enjoy stories, rhymes, and songs.

#### E. Cognitive Development

- 22. Exploring objects: Children explore objects with their hands, feet, mouth, eyes, ears, and nose.
- 23. Object permanence: Children discover object permanence.
- 24. Exploring same and different: Children explore and notice how things are the same or different.
- 25. Exploring more: Children experience "more."
- **26.** One-to-one correspondence: Children experience one-toone correspondence.
- **27. Number:** Children experience the number of things.

- **28. Locating objects:** Children explore and notice the location of objects.
- **29. Filling and emptying:** Children fill and empty, put in and take out.
- **30. Taking apart and putting together:** Children take things apart and fit them together.
- 31. Seeing from different viewpoints: Children observe people and things from various perspectives.
- **32. Anticipating events:** Children anticipate familiar events.
- **33. Time intervals:** Children notice the beginning and ending of time intervals.
- **34. Speed:** Children experience "fast" and "slow."
- **35. Cause and effect:** Children repeat an action to make something happen again, experience cause and effect.

#### F. Creative Arts

- **36. Imitating and pretending:** Children imitate and pretend.
- **37. Exploring art materials:** Children explore building and art materials.
- **38. Identifying visual images:** Children respond to and identify pictures and photographs.
- **39. Listening to music:** Children listen to music.
- **40. Responding to music:** Children respond to music.
- **41. Sounds:** Children explore and imitate sounds.
- **42. Vocal pitch: C**hildren explore vocal pitch sounds.

and skills. Infants and toddlers approach learning in different ways, and each child brings a unique set of attitudes, habits, and preferences to his or her explorations. Caregivers must consider this individuality, along with the developmental trends of the entire group, to support early learning.

Infants and toddlers have an entire world to learn about. How they go about this process depends in part on innate temperamental differences (Chess & Thomas, 1996). Equally important is



This toddler is doing something for herself as well as expressing initiative — by adding applesauce to her cornflakes!

whether and how the adults who teach and care for them encourage their exploratory behavior. For example, to what extent do adults welcome children's independence and curiosity? How safe and inviting do they make their homes and child care settings? Culture also influences how young children express their innate motivation to learn. For example, does a culture value personal initiative or group cohesion? Does it regard shyness as a sign of academic competence or depression and withdrawal (Carlson, Feng, & Harwood, 2004)?

The combined interaction of past and present "nature" (biology and temperament) and "nurture" (interactive experiences) in turn determines how young children are likely to approach learning in the future. The attitudes and behaviors they establish early on will affect their learning throughout their school years and into adulthood. A supportive active learning setting enables infants and toddlers to develop constructive approaches to learning. In such settings, adults share children's excitement about their own discoveries and initiatives as children explore and solve problems with increasing understanding and flexibility. In the process, children develop traits associated with "executive function," the higher-order abilities that will eventually allow them to successfully organize and complete tasks (Diamond, 2006). With adult support, infants and toddlers begin to construct an image of themselves as capable people who can both influence and respond to

their immediate world, as demonstrated in the following KDIs.

- Initiative: *Children express initiative*. For example, over the course of her development, Makiko turns toward or away from her caregiver or an object; initiates or avoids physical contact with a caregiver or child; selects or rejects a particular toy or object to explore; moves with persistence until reaching a chosen person or object; says "No!" to some choices or proposals from others; and expresses her choice or intention in words ("Me, kitty!" "Uppy, uppy!" "Me do it!").
- 2. Problem solving: *Children solve problems encountered in exploration and play.* For example, over the course of her development, Kelly moves her eyes, head, or hand to better see or touch a desired object; repeats an action to make something happen again; moves herself or an object to find someone or something that has disappeared from sight; makes varied attempts to solve a simple problem; and verbally identifies a problem before attempting to solve it ("Wagon stuck!").
- 3. Self-help: *Children do things for themselves.* For example, over the course of his development, Dante cries to express a need; holds his bottle or a clean diaper to assist in feeding or diapering; uses his fingers for eating; attempts a simple self-help task, such as drinking from a cup or putting on

an article of clothing; and does some part or all of a task, such as washing his hands, using the toilet or potty, or dressing.

#### Social and emotional development

Social-emotional development begins at birth and continues into adulthood. By observing how they orient themselves to see or hear, we know that babies are interested in one another from as early as two months of age. Young infants get excited by the sight of other babies and, given the opportunity, stare avidly at one another. In the middle of the first year of life, infants monitor the emotional expressions of significant others and change their behavior accordingly (e.g., approaching a smiling caregiver or turning away from one who is frowning). These early signs of social *referencing* are a precursor of the empathy that appears soon after in toddlerhood and have their roots in both genetic factors (the social dispositions infants are born with) and environmental experiences (children's first social encounters with the world) (Emde. 1998).

Attachments to parents and other caregivers determine how young children see and feel about themselves (see the section on trusting relationships, p. 28). Their early self-image, in turn, determines how they approach learning and human relationships throughout their school years and the rest of their lives. In other words, children's inner emotional well-being affects their outward-directed social selves. Early childhood researchers Lilian Katz and



A key factor in a young's child social-emotional development is attachment to the adults who care for him or her.

Diane McClellan (1997) note that "socially competent young children are those who engage in satisfying interactions and activities with adults and peers and through such interactions further improve their own competence" (p. 1).

Social-emotional growth in the early years affects, and is affected by, virtually every other aspect of children's development. Infants are born with innate temperaments and individual dispositions

that affect how they approach and deal with interpersonal and educational experiences. Toddlers' expanding use of language helps them express their wishes to others. They struggle with the competition between the "me" of their personal desires and the wish to be part of the "we" of the group. While very young children still focus primarily on their own needs, they are also increasingly sensitive to the needs and feelings of others. In fact, research shows infants and toddlers are more capable of empathy than scientists originally thought (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992).

In recent years, an emphasis on academic learning has overtaken a recognition of the importance of social and emotional development in young children. Fortunately, this imbalance is being corrected by landmark reports (such as From Neurons to Neighborhoods [National Research Council, 2000]) and position statements from organizations such as the American Academy of Pediatrics (AAP; Ginsburg, 2007). The AAP advises its members that "as parents choose child care and early education programs for their children, pediatricians can reinforce the importance of choosing settings that offer more than 'academic preparedness.' They should be guided to also pay attention to the social and emotional development needs of the children" (p. 188).

The importance of play is also undergoing a revival, led by such groups as the Alliance for Childhood (Miller & Almon, 2009), who decry its disappearance from early childhood settings in favor of instruction time. While this trend is more pronounced in preschool than in infant-toddler settings, the emphasis on ever-earlier stimulation to teach children letters and numbers is a cause for alarm. As psychologists Edward Zigler and Sandra Bishop-Josef (2009) point out, "the recent attack on play contradicts sound developmental theory" (p. 8).

Through playful interactions with adults and peers, children practice and extend the limits of their abilities, thereby developing a wide range of cognitive skills. As they master new tasks and initiate and respond to overtures with others, they gain a sense of themselves as social beings. In these ways, play promotes the social-emotional skills that underlie and facilitate learning across all developmental domains.

The first step in social and emotional development is differentiating oneself from others, that is, knowing that there is a "me" apart from "you" and "we." An infant or toddler, through actions with objects and interactions with trusted caregivers, gradually begins to understand that he or she exists as a separate and individual being - There's me and not me, my hand and Mommy's hand, my skin and the diaper, *my foot kicking the squeaker toy, me crying* and other babies crying. With this physical self-awareness comes a child's sense of him- or herself as an independent actor and initiator — I can do it, and, later, I can do it myself!

Infants and toddlers learn how human beings act and treat one another through their day-to-day interactions with parents, other family members, caregivers, peers, and other adults. When they grow up surrounded by parents and caregivers who care for them in a warm, respectful manner, children learn to trust themselves and others, to be curious, and to explore new learning challenges and adventures. These early social relationships influence their approach to people in later life. Infants and toddlers who are treated well, for example, see themselves and others as "friend-worthy"; they remember and build on their affirming social experiences as they make friends throughout their school years and in adult life - even as they form relationships with their own children.

Infants and toddlers express their sense of themselves and their understanding of social relationships through the following KDIs:

- 4. Distinguishing self and others: *Children distinguish themselves from others*. For example, over the course of his development, Alec puts his own fingers, thumb, or toes in his mouth; smiles, coos, babbles at, or touches his image in a mirror; plays with his own hands and feet; claims something or someone as "mine"; and spontaneously identifies himself in a photograph or mirror.
- Attachment: Children form an attachment to a primary caregiver.
   For example, over the course of his development, Ricardo snuggles and

cuddles in his caregiver's arms; gazes at the caregiver and exchanges smiles, tongue-clicks, coos, strokes, and pats with her; seeks the comfort of her lap or touch; engages with her in playful give and take; and summons her by name or tells her what's on his mind ("Mimi! Read book!").

- 6. Relationships with adults: *Children build relationships with other adults.* For example, over the course of her development, Tamara, in the presence of a trusted teacher, responds to the sounds or gestures of another adult; plays peekaboo or simple games with another adult; initiates contact with another adult; and brings her toy to or starts a conversation with another adult.
- 7. Relationships with peers: *Children build relationships with peers*. For example, over the course of his development, Nathan watches another child; exchanges sounds or gestures with a peer; physically seeks the company of a peer; pats, hugs, or brings his toy to a peer; and addresses a peer by name or talks to a peer.
- 8. Emotions: *Children express emotions.* For example, over the course of her development, Emily cries, smiles, frowns, wiggles all over with pleasure; stiffens or turns away from something or someone; laughs at, clings to, pushes away, or hugs someone or something; shows pleasure at being able to make something

work or complete an activity or solve a problem; shows frustration with a problem; and names her emotion ("I sad!").

- 9. Empathy: *Children show empathy toward the feelings and needs of others.* For example, over the course of his development, Leon smiles when his caregiver smiles or tenses when the caregiver tenses; cries at hearing another child cry; seeks comforting (by sucking his thumb or seeking a caregiver's attention) when another child is in distress; brings a comfort item (blanket, stuffed animal) to a child who is in distress; hugs Rochelle who is crying because her mom has left; and talks about an emotion displayed by another child ("Baby cry").
- 10. Playing with others: *Children play with others*. For example, over the course of her development, Olivia watches another child play; shows pleasure in playing peekaboo, "This little piggy...," and other simple social games; seeks the company of a peer and plays alongside; plays hide-and-find the teddy bear; chases or is chased by another person; and watches and joins the play of another child by engaging in similar actions or using similar materials.
- 11. Group participation: *Children participate in group routines*. For example, over the course of his development, Jesse kicks his legs at a mobile above his head while his caregiver changes



In this child care home, toddlers have the opportunity to make friends with children of different ages.

his diaper; squeezes and pats play dough at choice time; eats lunch at a low table with other toddlers and puts his dish in a tub when he is finished; and sways and claps his hands to the music at group time.

#### Physical development and health

For sensory-motor infants and toddlers, physical movement plays a major role in all learning: Babies learn through movement. As they move their arms, legs, and other body parts and encounter the world through touching and being touched, babies become more aware of how their bodies move and feel. They soon discover that they can change what they see, hear, or feel through their own actions — how delightful to kick, to see the mobile move, and be able to do it again! (Zero to Three, 2009, p. 55)

Physical development and health are considered dimensions of school readiness because of the strong associations found between maternal and child health and subsequent school performance (Kagan et al., 1995). Factors such as prenatal care and early nutrition affect brain development, which affects every other area of growth and learning. Maintaining good health and developing physical skills have many benefits for very young children. Using their bodies to create effects — at first by accident and later with intention is both gratifying and instructive. Through their actions, infants and toddlers learn what their bodies are capable of. They also explore simple laws of physics (e.g., If I let go of something I'm holding, it falls down). As they maneuver themselves and objects through space, they develop an understanding of the spatial relationships that underlie basic principles of geometry (see Cognitive development on p. 46).

The proposition that young children need to be "taught" to develop physically may seem odd. We assume this type of growth happens on its own, provided children have adequate nutrition and ample room to move in a safe environment. However, there is more to physical development than natural maturation. Professor Stephen Sanders (2002), a leader in the development of early childhood movement curricula, notes that "movement programs enhance play, and play provides children with the opportunity to practice movement skills in a variety of contexts. Play alone, however, is not a substitute for helping children develop physical skills....Some structuring of physical activity is necessary to help children maximize their movement experiences" (p. 31).

Research shows that young children who develop appropriate large- and finemotor skills, such as balance and hand-eye coordination, do better in school than those who are less physically adept (Pica, 1997). Connecting movement to sound for example, moving to the steady beat of music — may be related to the sense of "timing" — the tempo or natural flow of words — observed in fluent readers (Weikart, 2000). Physically competent children are also more likely to be socially accepted and given further opportunities to hone their skills through interactions, such as movement games.

By contrast, a lack of physical skills can lead to a general lack of confidence and may make children less willing to undertake academic and social challenges. Even toddlers and preschoolers are sensitive to "clumsiness" in peers and may reject them (Sanders, 2002). The degree to which individuals accept and care for their bodies and respect and appreciate their physical capabilities, thus, begins in infancy and has implications for selfesteem and overall functioning throughout their lives. Parents and teachers play a critical role in starting young children on a path that follows a healthy rather than problematic trajectory.

Children's emerging sense of themselves as independent actors and doers is strongly connected to their ability to control their motions, communicate through the language of gesture and action, handle objects with ease, and move at will from place to place. The importance of providing infants and toddlers with safe and ample space in which to exercise their inherent desire to move cannot be overstated. When infants and toddlers have the space and freedom to move without constraint (e.g., not confined in seats, swings, cribs, and stationary play centers), they can learn their own physical strengths and limits and practice movement patterns until mastery propels them to the next physical challenge — I'm really good at standing up and holding on. Now I'm going to try it without any hands!

Because movement is so central to sensory-motor learning, a young child's success exploring the physical world sets the stage for later explorations with people, objects, actions, and ideas. Here are the KDIs teachers will see infants and toddlers mastering as they explore with their bodies:

12. Moving parts of the body: *Children move parts of the body (turning head, grasping, kicking)*. For example, over the course of his development, Juan lies on his back and turns his head, waves his arms, reaches or grasps or kicks; holds an object with his hands and feet; holds an object and passes it from one hand to another; rolls or throws a ball toward an object or person; kicks a ball; and uses small objects with precise coordination (pulls up a zipper, strings large wooden beads).







This young infant is moving parts of her body: First, she lifts her legs; then grabs her feet; and, finally, tastes her toes!



Young children gain phonological awareness (recognizing the sounds of language) by repeatedly hearing familiar nursery rhymes. Phonological awareness is important for later literacy development.

- 13. Moving the whole body: *Children move the whole body (rolling, crawling, cruising, walking, running, balancing).* For example, over the course of her development, Allison wiggles and squirms; rolls over; sits up unassisted; creeps, crawls, scoots, and pulls up to a standing position; cruises by holding on to furniture and pulling herself along; balances and walks unassisted; and runs, walks down stairs, and climbs down a climber by herself.
- 14. Moving with objects: *Children move with objects.* For example, over the course of his development, Lukas sets an object in motion by kicking or batting; shakes, bangs, drops, and rolls things; moves an object along while creeping, crawling, scooting, or cruising; carries, pushes, or pulls an object while walking unassisted; and propels himself on a wheeled toy.
- **15.** Steady beat: *Children feel and experience steady beat.* For example, over the course of her development, Fiona

steadily shakes a rattle; pounds on the table with a spoon; bounces on her bottom while her caregiver sings a song; and pats or sways to the steady beat of a familiar chant.

### Communication, language, and literacy

Infants communicate with movement and sound from birth. Parents, family members, caregivers, and teachers cuddle, coo, and play with infants and also talk, sing, and read to them. Within this interactive social milieu, infants and toddlers learn to talk and lay the foundation for learning to read.

According to the National Reading Panel (2000), successful literacy development depends on four factors: comprehension (deriving meaning from action, speech, and text), phonological awareness (recognizing the sounds of language), alphabetic knowledge (understanding the relationship between letters and their sounds), and concepts about print (knowing how books and other printed materials work). Early childhood specialist Rebecca Parlakian (2004) admits that "when one imagines an infant or toddler, it is often difficult to conceptualize what early literacy 'looks like' for such young children" (p. 37). Observing their behavior can help us to understand.

In infants and toddlers, communication, language, and literacy are intertwined. Emerging literacy skills depend on language, and language, in turn, is driven by the child's need to communicate. Speaking, reading aloud, and singing to infants and toddlers stimulates their *comprehension* of and use of language. Although children, on average, begin to speak at around 18 months, they understand what people are saying to them long before that (Bardige, 2009). The more language addressed directly to them they hear, the more words they understand and use themselves when they do talk.

Studies repeatedly demonstrate the importance of a child's oral language — especially the number and variety of vocabulary words he or she knows — in learning how to read. Researchers Betty Hart and Todd Risley (1999) found that the more parents talked with their children, the more rapidly their children's vocabulary grew; the larger a child's vocabulary at kindergarten entry, the better his or her literacy skills later in school. Of particular value was "non-business" talk, that is, conversations that were not specifically aimed at getting a child to "do" something.

The first words babies typically learn to say are nouns (e.g., "ma" or "da"). Recent studies by neuroscientists at Carnegie Mellon University on how the brain encodes nouns offers some provocative findings on one of the ways infants may be hard-wired to acquire such vocabulary (Just, Cherkassky, Aryal, & Mitchell, 2010). The research team discovered that the adult brain's "dictionary" organizes nouns using three fundamental human factors: how you physically interact with it, how it is related to eating, and how it is related to shelter. Given that infants learn about the world through action and often explore things by putting them in their mouths, one might speculate that mouthing objects contributes to early language acquisition at the neural level. Research is needed to confirm this connection between these early learning behaviors and the formation of the brain structures needed for language, but it is an intriguing hypothesis for neuropsychologists to investigate.

In addition to developing vocabulary, participating in conversation also promotes phonological awareness, that is, recognition of the distinct sounds of language, the smallest of which is the phoneme (e.g., the /b/ sound in the word *ball* or the /p/sound in the word *lip*). As infants and toddlers engage in conversation (using the gestures, sounds, and words at their disposal), they hear the sounds that make up their home language. In fact, when they hear lots of words and begin to use some themselves, they mentally organize these words based on their initial sound. For example, they store all the words that start with the /b/ sound together, all the words that start with the /c/ sound together, and so forth. This mental lexicon helps them call forth the word "dog" when they see the family dog and "da" when they see daddy (Walley, 1993). As they hear nursery rhymes over and over and begin to join in saying them, infants and toddlers hear and repeat words that rhyme like cat and hat that end in the same /at/ sound.

Later on, infants and toddlers who have heard lots of language and stored lots of words by sound are more likely to gain phonological awareness rapidly and with

greater ease than children who have heard so few words from birth to school age that they have had not needed to sort them by sound into a mental dictionary. Because phonemes are represented by the letters of the alphabet, an awareness of phonemes is key to understanding the *alphabetic* principle, which is the idea that words are made of letters and each letter or letter combination has its own sound. This understanding of letter-sound relationships is the foundation of learning how to read. Research shows phonemic awareness and alphabetic knowledge predict whether a child will learn to read during the first two years of school (National Reading Panel, 2000).

The last factor that determines later reading success is *print knowledge*, recognizing the many uses of printed words and how print works (e.g., in English, print is read from top to bottom and left to right, books are read front to back, etc.). For infants and toddlers, print knowledge begins with exploring books and seeing print used in everyday activities (e.g., parents writing a grocery list). Toddlers also begin to incorporate other print props (such as newspapers and writing tools) in their play.

Recognizing environmental print on signs, labels, household products, and play items further contributes to a young child's emerging literacy skills. Toddlers, for example, can read familiar symbols and logos on restaurant signs or supermarket shelves. Infants and toddlers establish these foundations for later literacy when they handle books, look at and recognize pictures in books, connect pictures and stories, are read to, and pretend to read books themselves (Schickedanz, 1999).

Social beings from birth, babies want to connect with other human beings to create a context of meaning and belonging. This motivation fuels the development of language and literacy skills. Infants and toddlers communicate their feelings and desires through an increasingly complex system of cries, motions, gestures, and sounds and are acutely attuned to the body language and the warm, gentle voices of parents and caregivers. Infants and toddlers listen and respond to the organized sounds of language. They initiate social interaction with trusted caregivers and peers and, in the process, construct a set of useful ideas: that communication is a give-and-take process; that you don't need words to convey and understand safety, acceptance, approval, and respect; that there are lots of ways to make your point; and that trusted people are interested in what you have to communicate and say.

In short, infants and toddlers, like all human beings, are "meaning makers" (Wells, 1986). They weave gesturing, making sounds, speaking, watching, and listening into a two-way communication system that draws them into the social community and enables them to participate as contributing members. Evidence that they are learning to communicate is shown by their engaging in the KDIs described here:



Conversations with infants and toddlers are often nonverbal. This toddler and his caregiver communicate their mutual interest and regard through their closeness, expressions, and gestures.

- 16. Listening and responding: *Children listen and respond.* For example, over the course of his development, Mario turns toward a voice; establishes eye contact and smiles in response to a caregiver's voice; imitates a vocal sound or gesture; turns around when his name is spoken; and acts on a request or a statement (e.g., goes to the coat rack when the caregiver says, "It's outside time!").
- 17. Nonverbal communication: *Children communicate nonverbally.* For example, over the course of her development, Katelynn watches, initiates physical contact with, or points to a person, animal, or object; shows

an object to a caregiver or child; and guides a caregiver to an object, a place, or another person.

- 18. Two-way communication: *Children participate in two-way communication.* For example, over the course of his development, Taylor looks directly at a person's face and coos or smiles; takes turns exchanging sounds or gestures with another person; uses babbling and words to participate in a conversation-like exchange with another person; uses words to make a request or ask a question; and sustains a verbal interchange with another person by taking turns talking.
- **19. Speaking**: *Children speak.* For example, over the course of her development, Zongping makes cooing sounds; babbles; gestures by signing; uses a word or phrase to refer to a person, animal, object, or action; and utters simple sentences.
- 20. Exploring print: *Children explore picture books and magazines.* For example, over the course of his development, Matthew gazes at a picture book; touches, grasps, or mouths a book; turns the pages of a book; and points to or names what is pictured in a book.
- 21. Enjoying language: *Children enjoy stories, rhymes, and songs.* For example, over the course of her development, Luan becomes still, vocalizes, or bounces upon hearing a story, rhyme,

or song or upon being rocked or patted to the steady beat of a rhyme or song; participates in pat-a-cake or a similar word game, fingerplay, or singing game; asks to hear a story, song, or rhyme; and sings or joins in on a story, song, or rhyme.

#### **Cognitive development**

Early cognitive development encompasses many areas of learning. Young children explore objects to discover their basic physical properties and investigate concepts that will later form the foundations of mathematical thinking in quantity, space, and time. Each of these areas of cognitive development, and their associated KDIs, are described below.

#### Exploration

Everything in the world is new for infants and toddlers. Driven by what child psychologist Selma Fraiberg (1959) called an intense hunger for sensory experience, infants and toddlers explore objects to find out what they are and what they do. Beginning with haphazard batting and kicking at things, they gradually expand their exploratory actions and organize their findings into basic working concepts: That tastes good. This is too cold. That noise scares me. This blanket feels soft. Grass tickles my feet. Spoons make noise. Balls roll away. I can bang with a spoon, and I can bang with a rattle. I can carry stones in a bucket. The wagon moves, and the couch stays still. My blanket feels good in my mouth, and

*sand feels terrible in my mouth*. Because their daily lives are caught up in exploration and discovery, infants and toddlers are like amateur scientists. In *The Scientist in the Crib*, authors Alison Gopnik, Andrew Meltzoff, and Patricia Kuhl (2001) refer to the infant as "the most powerful learning machine in the universe" (p. 1).

As infants and toddlers explore objects to discover their characteristics and how they behave, we can observe the following KDIs:

- 22. Exploring objects: *Children explore objects with their hands, feet, mouth, eyes, ears, and nose.* For example, over the course of his development, Aidan looks at objects and listens to things that make noise; reaches for and grasps objects; bats at, kicks at, holds, mouths, tastes, pats, waves, turns, drops, and carries objects; uses two objects together, one in each hand; and uses an object as a tool to complete a task (shoveling sand into a bucket, pounding dough with a mallet).
- 23. Object permanence: *Children discover object permanence.* For example, over the course of her development, Autumn turns toward a familiar object or person; visually follows an object as it drops, rolls, or moves away; searches for a hidden object; and initiates hiding and peekaboo games.
- 24. Exploring same and different: *Children explore and notice how things are the same or different.* For example, over the course of his development,



Touching and mouthing are common ways for babies to explore and learn about objects.

Marwan shows preference for low rather than high voices, slow rather than fast music, or one pacifier rather than another; repeats a satisfying action or sound; selects like things from a group of toys or materials (all the long-handled objects) to mouth and explore; selects like objects to use for some purpose (filling a bag with just plastic animals or just pine cones); uses the same word to name similar objects (e.g., calls all four-legged animals "dogs"); and gathers two or more similar objects from a variety of objects.

#### Quantity

The early explorations of infants and toddlers also lay the foundation for later discoveries about mathematics. Educational researcher Herbert Ginsburg and his colleagues were amazed at how much of very young children's spontaneous play involves mathematical activities and thinking (Ginsburg, Inoue, & Seo, 1999). Professor Art Baroody (2000) describes how young children build mathematical knowledge from their daily activities and the lessons they derive from them watching the level of juice in the cup go up when more is "added" and go down when each sip is "taken away," seeing if the tower will still stand when "one more" block is added.

Although the National Council of Teachers of Mathematics (NCTM, 2000) has issued learning standards for children beginning in prekindergarten, mathematics knowledge and skills are rooted even earlier in a child's development. For example, there is evidence that rudimentary ideas about quantity, such as concepts of *oneness* (a single unit or quantity of one) and *invariance* (a quantity stays the same unless it is added to or subtracted from), appear in preverbal infants based on their direct experiences with these concepts (Brannon, 2002). Objects come singly or in groups of various sizes; materials come in various quantities. If there is a single object, or a little bit of something, there can also be "more!" Thus, young children have a sense of quantity when they point to the table and say "mo" for more grapes at snacktime. They experience the number of things when they count "One, doh, twee" while placing beans into a bottle one at a time. In these direct experiences with quantity, we see the following KDIs:

- 25. Exploring more: *Children experience "more.*" For example, over the course of her development, Tierney prolongs exchanging smiles, coos, or gestures with someone; handles one object after another from a group of objects; selects one object (to put into her mouth or into a container), then another, and another; asks for "more" of something (cereal, juice, blocks); and gathers or hoards a number or quantity of something (filling her pockets with several small animals, pouring more and more sand into a bucket).
- 26. One-to-one correspondence: *Children experience one-to-one correspondence.* For example, over the course of his development, Daimon puts his thumb or pacifier into his mouth; holds one object in each hand; attempts to put on a hat, or to put a sock or shoe on each foot, or to put a mitten on each hand; and puts a toy person in each toy car or in each toy bed.



This young child is exploring one-to-one correspondence by putting one marker cap on each finger.

27. Number: *Children experience the number of things*. For example, over the course of her development, Shannon prolongs her gaze at a small collection of objects when the number of objects changes (from one ball to two or from three wooden spoons to two); anticipates seeing or finding the one, two, or three things that have recently disappeared (continues to search for the other shoe after finding one); and says a number name while pointing to each of several objects ("One, two, twee" or "One, two, seben") or in reference to objects ("Two doggies!").

#### Space

Young children are also laying the foundation for geometry when they explore shapes and space. They learn the properties of basic shapes (sides, corners, curves) by playing with wooden or felt circles, triangles, and rectangles. Seeing that the small wooden block fits inside the small plastic container — but the big wooden block doesn't — is the beginning of discovering rules about spatial relationships. Raising their hands to a caregiver and saying "Up!" shows young children have a preliminary sense of direction. Looking on



Climbing up steps on this play structure gives this young toddler a whole new view of her learning environment.

the shelf for their favorite book is evidence of a simple cognitive map in their heads with one or two familiar locations.

In their active learning journeys, infants and toddlers also gain direct bodily awareness of space. Babies inhabit the space immediately around them. With increasing activity and mobility, their sense of space expands as they learn to navigate on their own from one interesting place to another. They experience proximity (nestling in a caregiver's arms), separation (crawling across the room to the steps they want to climb), and enclosure (climbing into a sturdy box). They learn to orient themselves and objects in space so things are easier to see or handle. They attempt to solve the spatial problems they encounter in exploration and play: *I got into this box. Now I have to get out!* Through their own actions, and by actively exploring materials, young children thus begin to develop an understanding of the spatial concepts in these KDIs:

28. Locating objects: Children explore and notice the location of objects.For example, over the course of his development, Steen watches a moving object; moves closer to a desired object; moves one object to gain access to another; locates a desired object for exploration or play; and retrieves an object he has not seen for a while (remembering and getting a sweater from his tub or personal storage area).

- 29. Filling and emptying: *Children fill and empty, put in and take out.* For example, over the course of his development, Jonathan drinks from a bottle; knocks over a cup of water or a tin of large wooden beads; takes toys off a shelf or out of a cupboard; dumps toys out of a can, box, or basket; puts objects into a box, bag, purse, or wagon; fills a cup with water; and fills and empties a container of sand, corks, and rocks.
- 30. Taking apart and putting together: *Children take things apart and fit them together.* For example, over the course of her development, Latrisha grasps and pulls on objects; waves, shakes, and bangs objects; opens books and doors; takes the tops off boxes; takes off an article of her clothing and attempts to put it back on; fits shapes into shape sorters, corks into bottles, and large pegs into pegboard holes; and puts together simple puzzles.
- 31. Seeing from different viewpoints: *Children observe people and things from various perspectives.* For example, over the course of her development, Charity observes people and things from a

caregiver's arms, from the floor, from the couch, or while lying on her back, front, or side; observes as she sits on the floor or grass or on a pillow, chair, or carton; observes as she crawls across the floor or grass, under the table, into a carton, or up a ramp; and watches people and things from an upright position, from perches she has climbed onto, while swinging on a swing, or while bent over to look backward between her legs.

### Time

Finally, over the course of repeated routines and explorations with materials, very young children begin to develop concepts about time. For infants and toddlers, time is now, this moment, the present. In a baby's sensory-motor experience, observed psychologist John Philips (1969), "time is limited to that which encompasses a single event, such as moving a hand from leg to face, feeling the nipple and beginning to suck, or hearing a sound and seeing its source" (p. 20). Babies' internal sensations shape what happens in the present. For example, hunger signals eating and drowsiness signals sleeping. Gradually, children learn to anticipate immediate events from external cues: The sound of running water signals bath time, the sound of Daddy's voice signals play time, and the jingling of keys means going somewhere in the car. Some older toddlers can begin to anticipate and express what they are going to do next: "Balls!" (Play with balls.) "Go ducks!" (Go see the

ducks.) As infants and toddlers tangle with basic notions of time, the following KDIs emerge:

- 32. Anticipating events: Children antici*pate familiar events.* For example, over the course of her development, Leila brightens, becomes still, or turns at hearing a familiar voice or sound; performs a particular action at the sight of a particular person or object (smacking her lips upon seeing food or a spoon or crying upon seeing Mom or a caregiver put on a coat); sees a familiar sight and says what will happen next (saying "Eat, eat!" upon seeing the lunch trays arrive); puts herself in position for the next event (going to the window and looking for Mom at the end of the day); and describes her immediate intentions in words ("Wash hands," "Play trucks").
- 33. Time intervals: *Children notice the* beginning and ending of time intervals. For example, over the course of his development, Abdul turns away at the end of a feeding; stops an action to attend to an interesting sound, smell, action, or sensation; uses words to indicate the end of an event ("Down!" "All gone!"); and uses a word to indicate a past event (looking out the window, remembering a dog from the day before, and saying "Doggy").
- 34. Speed: *Children experience "fast" and "slow.*" For example, over the course of her development, Lydia rolls, bounces, rocks, bangs, and shakes things at various rates of speed and crawls, cruises,



This child is experiencing speed. She is going down the slide faster, with a helpful push from a friend.

walks, and climbs at various rates of speed.

35. Cause and effect: *Children repeat an action to make something happen again, experience cause and effect.* For example, over the course of his development, Giles learns to suck; watches an object after accidentally setting it in motion; repeats a simple action to make it happen again; and repeats a simple sequence of actions to make something happen again (stacking several blocks, knocking them down, retrieving them, and beginning again).

### **Creative arts**

From their ongoing sensory-motor explorations, infants and toddlers accumulate a critical body of direct experience. They begin to understand, for example, what a blanket is, how it feels, and how to wrap it around themselves for warmth and comfort, and they discover that it continues to exist even when they cannot see it. Gradually, with repeated blanket experiences, they begin to form a mental image of a blanket, that is, to see a blanket in their mind's eye when no actual blanket is in sight. This process of beginning to internalize, or mentally picture, something is the child's first experience with what is called representation.

The ability to represent allows the child to change a concrete experience into another form, to transform it. Written language is one type of transformation; that is, experiences can be represented in words. The creative arts are another form of representation because they allow us to transform experiences and ideas from one realm into another through painting, music, movement and dance, and dramatic role play.

Early development in the creative arts follows several trajectories. In their book *Supporting Young Artists,* Ann S. Epstein and Eli Trimis (2002) describe these developmental progressions:

• From accidental or spontaneous representation to intentional representation For example, the younger child makes a noise and decides it sounds like a dog. The older child pretends to be a dog and deliberately makes a "barking" sound.

- *From simple to elaborated models* For example, the younger child listens to music and creates a one-step movement. The older child creates a movement with two steps, in sequence.
- *From random actions to relationships* For example, the younger child makes marks on the page. The older child makes lines or shapes and considers how they "go together" on the page.

Engaging in extensive sensory-motor experience — acting on objects with their whole body and all their senses and repeating these actions at will — enables very young children to experience representation in many forms — to imitate the actions of others, interpret pictures and photographs of actions and objects they have experienced, and begin to use actions and materials to show or represent something they know about their world. Infants and toddlers build on their direct experiences and experiment with the beginnings of creative representation in the following KDIs:

36. Imitating and pretending: *Children imitate and pretend.* For example, over the course of his development, Nicholas watches and listens to another person; imitates the sounds, facial expressions, or gestures of other people; tries to imitate another person who is eating with a spoon or drinking from a cup; repeats the sounds or actions of another person, an animal,



*This toddler paints his hand as well as his caregiver's hand while exploring finger paints.* 

or an object; and uses one or more objects to stand for something else (uses a basket for a "hat" or some blocks for "pieces of toast").

37. Exploring art materials: Children explore building and art materials.
For example, over the course of her development, Mai Lee explores her own hands; reaches for and explores blocks, clay, dough, and paper; makes marks and scribbles; stacks several blocks; squeezes clay or dough; and labels an object she has built, made, or drawn (paints some blotches and lines on a paper, looks at them, and says "Doggie!").

- 38. Identifying visual images: *Children respond to and identify pictures and photographs.* For example, over the course of his development, Tristan gazes or babbles at a picture or photograph; gestures, points to, or makes the sound of a familiar person, animal, or object in a picture or photograph; selects a picture or photograph to hold or carry; and talks about a person, animal, or object in a picture or photograph.
- 39. Listening to music: *Children listen to music.* For example, over the course of his development, Eli turns his head toward music; looks to see where the sound is coming from when his teacher begins to sing; and points toward the music player to indicate to his caregiver that he wants her to play music.
- 40. Responding to music: *Children respond to music.* For example, over the course of her development, Tia sways or bounces in response to music; stands unassisted and moves her body to music; moves from one foot to the other; and pats, walks, turns, and jumps to music.
- 41. Sounds: *Children explore and imitate sounds.* For example, over the course of his development, Rocco plays with the sounds of his voice as he babbles and coos; plays a game with his caregiver

in which he initiates and then tries to copy the sounds she makes; and imitates the sounds made by his peers.

42. Vocal pitch: *Children explore vocal pitch sounds.* For example, over the course of her development, Sheri plays at sliding her voice up and down the scale; attempts to pitch her voice higher or lower to match the sounds of others; and joins in singing the melody of a simple song she has heard several times.

## How Adults Use the KDIs to Support Early Learning

Teachers and caregivers can best know, understand, and support each child in their care through close attention, observation, and both physical and verbal interaction. The KDIs guide adults in this effort by broadly defining the actions and learning of sensory-motor children as they build an understanding of their world through direct experiences with people, objects, and daily routines.

The KDIs help caregivers organize, interpret, and act on what they see children doing. When Samantha, a young toddler, unties one of her caregiver's shoes and giggles, her caregiver, Ida, thinks of KDI 5. *Attachment: Children form an attachment to a primary caregiver* (under social and emotional development) and thus interprets Samantha's action as a bid for a relationship. Ida knows from her observations of children and from her understanding of child development that playful teasing is one way toddlers typically interact with trusted adults.

To let Samantha know that she will play the game Samantha has initiated and to encourage KDI 18. Two-way communication: Children participate in two-way communication (under communication, language, and literacy), Ida says to Samantha, in mock surprise, "Oh, dear, what happened to my shoe?" Taking this as her cue to continue, Samantha immediately unties Ida's other shoe. "Oh, dear," says Ida, taking her turn in the exchange, "what happened to my other shoe?" After Ida ties her shoes, Samantha starts the game again. In this fashion, Samantha learns both to trust herself to initiate interactions with her caregiver and to trust her caregiver to respond to her actions as playful rather than naughty.

The KDIs help caregivers to understand children's development and thus make decisions about what to do the next day, based on what they observed children doing today: "At lunchtime, I noticed Elron exploring and mushing his mashed potatoes with his hands," Ida says to Marta, her teammate. Ida is thinking about KDI 22. *Exploring objects: Children explore objects with their hands, feet, mouth, eyes, ears, and nose* (under cognitive development). "So," she asks Marta, "to extend Elron's mushing of gooey things with his hands, what do you think about using clay tomorrow at group time?"

The KDIs help caregivers to select materials and equipment to add to the

## **Active Learning and the KDIs: A Summary**

### **Five Ingredients of Active Learning**

# Materials: There are a variety of materials infants and toddlers can use in many ways.

- Children explore and play with materials rich in sensory appeal:
  - Everyday household objects
  - Natural and found materials
  - □ Soft, cuddly materials
  - **D** Easy-to-handle materials
  - □ Squishy, messy materials
  - Materials children can set in motion
  - Materials children can pull themselves up on
  - Materials children can make noise with
- Children have access to people.
- Children have a safe place to explore and play with materials.
- Children have time to explore and play with materials.
- Children have access to materials throughout the day.
- Children have access to materials over long periods of time.

### Manipulation: Infants and toddlers use their whole bodies and all of their senses to manipulate materials freely.

Children explore materials with all of their senses (eyes, hands, feet, mouths, ears).

- Children experiment with materials to find out what they do, return to favorite materials and people, and repeat satisfying actions.
- Children use their whole bodies to reach, grasp, roll, sit, crawl, walk, climb, carry from place to place, and so forth.
- Children use materials to imitate actions.

## Choice: Infants and toddlers choose what to do.

- Children make choices and decisions all day long.
- Children express preferences for people, materials, and experiences.
- Children follow their own intentions and initiatives.
- Children decide how to explore and what to do with materials.
- Child use materials to do things for themselves.

### Child communication, language, and thought: Infants and toddlers communicate and use language about what they need, discover, know, and do.

- Children communicate their needs, feelings, discoveries, and ideas in their own individual ways and at their own pace.
- Children initiate contact with caregivers.

- Children express feelings and communicate about discoveries to receptive and responsive caregivers.
- Children string together sounds, gestures, and words in a fashion that makes sense to them.
- Children communicate through sign language.

### Adult scaffolding: Infants and toddlers learn within the context of trusting relationships.

- Caregivers take interest in children's play.
- Caregivers enjoy children's actions and explorations.
- Caregivers communicate warmth and respect.
- Caregivers acknowledge children's feelings, from delight to frustration.
- Caregivers provide positive physical contact, including cuddling, hugging, holding, stroking, and lap-holding.
- Caregivers give each child their full attention and respond readily to the child's signals and approaches, communication, and talk.
- Caregivers talk with children, tell children what will happen next, encourage children's problem solving, and read to children.

## **Active Learning and the KDIs: A Summary**

### **KDIs: The Content Infants and Toddlers Learn**

Caregivers are familiar with the key developmental indicators (KDIs) in these areas:

- □ Approaches to learning: Children show initiative in solving problems, doing things for themselves, and learning about their world.
- □ Social and emotional development: Children express their feelings, differentiate themselves from others, and form relationships with adults and peers.
- Physical development and health: Children explore the movements their bodies are capable of making and use their bodies to learn about the world.

- Communication, language, and literacy: Children communicate with gestures, sounds, and words to establish human connections and explore printed materials.
- Cognitive development: Children develop early ideas about quantity and number, navigate their environment, discover the attributes of objects, and develop ideas about time from the sequence of their daily activities.
- □ Creative arts: Children exercise curiosity and creativity by exploring art materials, pretending, and engaging with the sounds of music.

## How caregivers use the KDIs

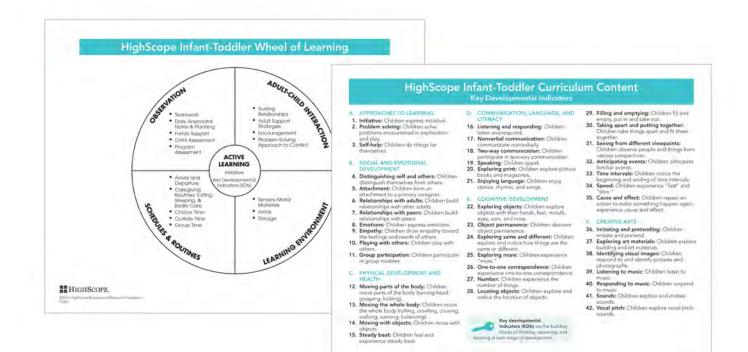
- Caregivers are familiar with the KDIs related to approaches to learning; social and emotional development; physical development and health; communication, language, and literacy; cognitive development; and creative arts.
- □ Caregivers observe children and interpret their actions in light of the KDIs.
- Caregivers use the KDIs to guide their interactions with children, to plan for activities that support children's learning and development, and to guide their selection of materials for children.

play space and to think of interactions and experiences that might support and build on children's actions, interests, and need for repetition during each part of the day.

Finally, the KDIs help caregivers to track children's growth and development, share and interpret children's actions to parents, and work together with parents to devise common strategies for supporting children's development — in approaches to learning; social and emotional development; physical development and health; communication, language, and literacy; cognitive development; and creative arts — at home and in their care setting. For more about using the KDIs to enhance teamwork on behalf of children and to assess and scaffold their learning, see Chapters 2 and 6, respectively.

## **Infant-Toddler Wheel of Learning**

This convenient reference card provides a detailed view of HighScope's curriculum content across 42 key developmental indicators (KDIs) to help you identify the behaviors, skills, and knowledge most important for infant and toddler learning and development based on research.



# Lesson Plans for a Strong Start: the First 30 Days for Infants



Confidently implement the HighScope Curriculum from day one. These ready-to-use lesson plans are filled with strategies, activities, and information related to the development of young children so you can support and engage infants in active learning. This book includes thorough guidance for teachers to continue creating high-quality lesson plans beyond the first 30 days.

# 4

# The Second Week

## **Overview**

During the second week of your child care program, infants are still adjusting to their new environment. They may begin to see you as someone familiar but still have a difficult time separating from family members. Acknowledging children's feelings lets them know that it's all right for them to miss family members, that you accept their emotions without judgment, and that you respect them as people. Mobile infants will start to see you as an anchor of safety, at times venturing out to explore, but checking in with you through a glance or by making physical contact. As you continue to build relationships with families, they too will become more comfortable with their child's new setting and adjust to leaving their baby in the hands of trusted caregivers.

## **Goals for This Week**

- Continue to strengthen relationships with families.
- Reinforce children's trust in you as a new caregiver.
- Support children as they try new materials and experiences.
- Engage children by repeating activities that interest them.
- Continue to document children's learning by taking photographs of infants as they engage in daily activities; regularly post these photos around the classroom and include them in teacher-made books to share with families.

## Things to Keep in Mind

Children at this age go through different phases of separation anxiety and stranger anxiety. Dropoff times can be smooth one day and challenging the next. Be sure to acknowledge the feelings of both the children and the families at these times. Be prepared with comfort items, favorite toys, or favorite songs to help ease infants' transitions from home to school.

Remember to keep stimulation in your setting to a minimum. Babies will be adjusting to the newness of a group center as well as to its activity and noise levels, which are likely to be higher than children have experienced at home. Background music, harsh lighting, and clutter can lead to an overwhelming and unsettling experience. These stimuli also interfere with learning.

### Materials to Add to the Classroom

- As you introduce sign language to children, add visual representations of individual hand signs and phrases. Post photos and illustrations on the walls around the classroom as a reminder to children and adults of how to make the sign. Include the name of the sign for adults to read and a brief description to assist adults in using the sign if it involves actions that cannot be depicted in photos. These materials will be most helpful in the mealtime area, where they will be used frequently. This week you will add hand signs for the words *all done, more,* and *eat*.
- Place the song cards for "Open, Shut Them" and "Old MacDonald Had a Farm" in the song box.
- Add materials to the outside space that can be easily retrieved for nonmobile infants. Some examples include books, balls, wood rings, shakers, and blocks.

### **Information to Exchange With Families**

Continue to share positive stories about what babies are doing and enjoying in your care. Parents and families may also enjoy seeing photographs you have taken of their children engaged in play and interactions throughout the day. Families will feel reassured knowing that their child is having a positive experience and the information you share may give them some ideas of activities they might try at home. Show parents that you respect their ideas and input too by asking them about the kinds of things their baby enjoys doing at home. These ideas might also help you when infants have a tough transition at dropoff time or at a sleepy or hungry time of day.

Create a lending library for parents with various resources for parents to borrow and return. You might include, for example, information about your curriculum, local family support services, and hot topics such as typical infant development, general infancy health concerns, sleep patterns, teething, and weaning from breastfeeding or bottle-feeding. Choose a location for the parent lending library that is easily visible and accessible to parents so they are reminded of available resources and can grab something to borrow even when they are in a hurry at dropoff or pickup times.

### Language and Communication Development

In infants and toddlers, communication, language, and literacy are intertwined. Emerging literacy skills depend on language, and language, in turn, is driven by the child's need to communicate. Speaking, reading aloud, and singing to infants and toddlers stimulates their comprehension of and use of language. Although children, on average, begin to speak at around 18 months, they understand what people are saying to them long before that (Bardige, 2009). The more language they hear addressed directly to them, the more words they understand and use themselves when they do talk.

Social beings from birth, babies want to connect with other human beings to create a context of meaning and belonging. This motivation fuels the development of language and literacy skills. Infants and toddlers communicate their feelings and desires through an increasingly complex system of cries, motions, gestures, and sounds and are acutely attuned to the body language and the warm, gentle voices of parents and caregivers. Infants and toddlers listen and respond to the organized sounds of language. They initiate social interaction with trusted caregivers and peers and, in the process, construct a set of useful ideas: that communication is a give-and-take process; that you don't need words to convey and understand safety, acceptance, approval, and respect; that there are lots of ways to make your point; and that trusted people are interested in what you have to communicate and say.

In short, infants and toddlers, like all human beings, are "meaning makers" (Wells, 1986). They weave gesturing, making sounds, speaking, watching, and listening into a two-way communication system that draws them into the social community and enables them to participate as contributing members.

### LESSON PLANS FOR A STRONG START

## Day 3

## **Choice Time**

KDIs: 1. Initiative; 2. Problem solving

**COR Advantage items:** A. Initiative and planning; B. Problem solving with materials

Even young infants will encounter problems with materials throughout their play and exploration. Keep in mind that for very young children "materials" can also include their bodies. When children are struggling, scaffold their learning by getting on their level, acknowledging their feelings, and being available to help them as needed. Remember that working through a challenge is often part of learning something new. At these times, remain close to children so they know you are there should they need your help, but allow them time to try things out on their own. Encourage children to continue with their efforts, offering assistance before they become too frustrated. For example, an infant may rock to one side then back several times trying to roll over without success. You can be supportive by staying close and waiting to offer assistance when the child shows signs of distress or giving up.

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Struggle to hold onto or reach desired objects as they work to gain mobility and control over their arms, hands, and legs.	Understand that outcomes are connected to actions; repeat their actions to con- firm that the same outcome will occur each time, and may become frustrated when the same result does not occur; enjoy the sounds and movement they are able to create.	Act intentionally in relation to objects, such as taking a lid off a box and attempting to put it back on, or taking apart two nesting cups and trying to put them back together; become frustrated when they struggle to return the materials to their original state.
Adults can	Adults can	Adults can
Acknowledge children's efforts (for example, the adult might say, "You're looking at that toy and really stretching to reach it!"); describe infants' successes (for example, the adult might say, "You stretched and stretched and you got it!").	Narrate children's actions and the outcomes that fol- low and help them to repeat an action; point out when the result of an action is the same or when the outcome is different; offer materi- als that make interesting sounds, move (e.g., roll), and can be stacked and knocked over.	Narrate children's intentional actions, acknowledging their feel- ings of frustration when the desired result does not occur; gently offer ideas or model simple ideas of how children can complete their task.

### The Second Week

## **Bodily Care**

**KDIs:** 22. Exploring objects; 11. Group participation

**COR Advantage items:** BB. Observing and classifying; G. Community

For transitions into bodily care routines and during diaper changes, allow children to bring an item they have been using with them. Holding something that interests them helps to focus their attention and allows them to continue exploring while the necessary task of a diaper change is completed. Talk to children about the object they are holding and how they are using it.

## **Mealtimes**

KDIs: 17. Nonverbal communication

**COR Advantage items:** M. Listening and comprehension

Reinforce the use of sign language for the words *more* and *all done*. Respond to children's efforts to communicate nonverbally by acknowledging their attempts and reacting appropriately, for example, returning a smile or imitating a movement.

## **Group Time With Materials**

Primary Caregiver 1

**KDIs:** 22. Exploring objects; 23. Object permanence; 24. Exploring same and different

**COR Advantage items:** BB. Observing and classifying; X. Art

Activity: Exploring Fabrics

**Materials:** 3–5 types of fabrics of various sizes (4–24 inches in length, 2–4 inches in width) and textures (e.g., wool, silk, satin, corduroy, velvet, burlap, linen, fleece, chenille, felt, lace)

Let children know that today they will be exploring different materials and textures. Lay fabric out where children can reach it or move to it. Describe the different textures of the materials by using words like *rough, smooth, slippery, soft,* and *fuzzy*.

Note: For nonmobile infants, this part of the day can be experienced individually.

### **LESSON PLANS FOR A STRONG START**

Group Time With Materials (cont.)		
Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Explore fabrics by mouthing them or rubbing them with their fingers.	Explore fabrics with both hands, mouthing the materi- als and shaking them.	Explore the materials with both hands; carry them around the play space; and wave them, shake them, or dance with them.
Adults can	Adults can	Adults can
Describe the textures babies are feeling as they explore the materials; rub fabrics against infants' feet and legs, repeating textures that babies respond to favorably by smiling or laughing.	Describe how babies are using the materials; engage with infants by playing peekaboo or gently pulling the materials across their feet and legs; comment on children's reactions to the materials.	Play peekaboo and use the materials in the same way children use them; com- ment on the textures of the materials the children are holding and describe the similarities and differences.

As children begin to lose interest in the activity, start cleaning up the materials. Allow children to take a fabric scrap with them to the next part of the day to support a gradual transition through the routine.

### The Second Week

### **Group Time With Materials**

#### Primary Caregiver 2

**KDIs:** 12. Moving parts of the body; 13. Moving the whole body; 22. Exploring objects; 31. Seeing from different viewpoints

**COR Advantage items:** I. Gross-motor skills; BB. Observing and classifying

Activity: Tummy Time

Materials: Silky scarves, fuzzy blankets, bumpy foam mats, carpet squares, indoor/ outdoor rug

Lay out the various textured materials and let children know that they are going to be spending time on their tummies today. Help younger infants onto their tummies and encourage older infants to get on their tummies and explore the textures with their hands and feet.

Note: For nonmobile infants, this part of the day can be experienced individually.

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Spend a short amount of time on their tummies as they work on building neck strength and increasing their comfort level with a new position.	Play on their tummies for a longer period of time, reach out for materials, scoot, and possibly crawl.	Spend limited time on their tummies and prefer to crawl or walk on the various textured surfaces.
Adults can	Adults can	Adults can
Get on children's level and describe what infants can see from their position on their tummies; describe how children are moving as they lift up their heads, kick their legs, and use their hands to push up their chest; talk about the textures infants are feeling as they explore the materials on their tummies.	Comment on children's efforts to get to one of the materials that interests them; describe the textures infants are exploring and their reactions to touching and feeling them.	Encourage children to crawl by crawling around with them on the floor; consider removing infants' footwear (if they choose to walk) so they can feel the different textures on their feet; describe how children are moving and how they react to differ- ent textures; comment on actions that infants try repeatedly.

As children begin to lose interest in the activity, start to gather up the materials that are not being used and let the children know what will be happening next. For a gradual transition, allow some children to continue exploring textures while you assist others who are finished into the next part of the routine.

### LESSON PLANS FOR A STRONG START

## **Group Times With Movement and Music**

**KDIs:** 5. Attachment; 12. Moving parts of the body; 15. Steady beat; 21. Enjoying language; 41. Sounds; 42. Vocal pitch **COR Advantage items:** J. Fine-motor skills; Y. Music; Z. Movement

Activity: "Open, Shut Them"

Materials: "Open, Shut Them" song card

Sing "Open, Shut Them" on the floor with a group of children. Introduce actions after you have sung the song several times. Observe children's reactions and copy their facial expressions and body movements as they respond to your voice. Sing the song for as long as the children show interest by maintaining eye contact, bouncing up and down, and/or clapping their hands. Children may also participate by "singing" along or babbling, and they may come and go from the singing experience.

After singing the song several times, add simple actions that children can easily copy. Keep in mind that children at this age have limited motor control. Use actions such as opening and closing both hands simultaneously, clapping on the word *clap*, patting your legs on the word *lap*, and touching your chin on the word *chin*. Accept children's level of involvement and how they choose to move their bodies.

Note: For nonmobile infants, this part of the day can be experienced individually.

## The Second Week

## Group Times With Movement and Music (cont.)

Scaffolding Learning at Each Developmental Level		
Earlier Middle Later		
Children may	Children may	Children may
Turn their heads toward the adult and watch the adult who is singing or respond to the song by smiling or cooing.	Respond to the song by laughing, moving their bodies to the music (e.g., waving their arms, kicking their legs), or babbling when the adult finishes singing.	Respond to the song by bouncing or swaying to the music or attempting to sing along.
Adults can	Adults can	Adults can
Reflect children's responses by matching their facial expression and describing their reactions to the song (for example, the adult might say, "You were watch- ing me and smiling as I was singing. Would you like to sing the song again?").	Reflect children's responses by matching their facial expressions during the song and commenting on their reactions when the song is over (for example, the adult might say, "You were still kicking your legs and waving your hands when the song was over. It seems you'd like to sing it again"); sing the song several times again until children begin to lose interest; add movements while singing, involving children by mov- ing around and touching their lap or chin.	Reflect children's responses by matching their facial expressions during the song and commenting on their actions after the song ends (for example, the adult might say, "You were bouncing and clapping your hands when the song was over. It seems you'd like to sing it again!"); continue to sing the song for as long as children continue to express an interest; describe the way children are moving and copy their movements; engage children by describing their ideas while copying their movements.

As children begin to lose interest in the activity, tell them you'll sing the song one more time and then let them know what will be happening next in the day's routine.

## **Outside Time**

Bring a soft blanket outside and lay it out in a shady spot. Add a basket of balls (varying in size) for exploring. Allow nonmobile infants to explore on their backs or tummies, or by sitting up. Mobile infants might choose to take one or a few balls to another part of the play area. Comment on how children are using and exploring the materials and describe the different textures (e.g., *smooth, bumpy, fuzzy*).

## **Transitions**

Give children warnings about upcoming transitions and let them know when something is going to happen immediately (for example, you might say, "I'm going to pick you up and bring you to the changing table" or "I'm going to help some children to the snack table. I'll be right back to help you").

## **Other Times of the Day**

## Dropoff

For older infants who might be having a hard time separating from the person who drops them off at the beginning of the day, offer a favorite toy or item you have observed them using. Acknowledge infants' feelings and offer gentle contact such as rubbing their backs, offering a hug, or holding hands to reassure them.

## Cleanup

As you pick up materials in the play space, narrate what you are doing and describe the objects you are putting away. Offer a basket or container to older infants to put away things they are holding or using. While they might not understand the concept of "cleanup," they do enjoy filling containers and copying your actions. Acknowledge their efforts by describing what they are doing as they put objects back into the containers where they belong.

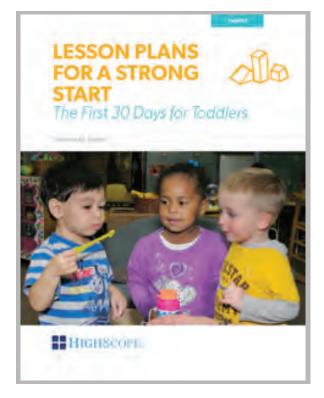
## **Observations**

Throughout your interactions with children, watch for their emerging skills and consider how you might scaffold their learning with the materials and experiences you offer. For example, you might observe some infants reaching for objects or trying to roll. Place interesting objects in sight but just out of their reach to gradually extend their mobility.

## Follow-up

Post simple photos or drawings of the sign language hand signs you are using in the classroom. Be sure to hang them where children can easily see them and adults can reference them during mealtimes.

# Lesson Plans for a Strong Start: the First 30 Days for Toddlers



Confidently implement the HighScope Curriculum from day one. These ready-to-use lesson plans are filled with strategies, activities, and information related to the development of young children so you can support and engage toddlers in active learning. This book includes thorough guidance for teachers to continue creating high-quality lesson plans beyond the first 30 days.

# **5** The Third Week

## Overview

This week is about securing relationships with children and assisting them in developing a consistent routine in their new environment. In new situations, it is common for children's sleeping, eating, and play patterns to vary more than they typically do in their regular routine at home. After being in group care for a couple of weeks, they will begin to adjust to their new environment and they will gradually fall into their natural eating and sleeping rhythms. You may need to reassure parents that while children are following their natural rhythms, these patterns can still differ from the home routine, as there are additional stimulants and distractions. For example, children who take longer naps in child care than they typically take at home are responding to their biological demand to sleep more than they do at home because they are exerting more energy in the child care setting. Some children develop one routine for home and another for the child care environment. And because they are getting older, children's routines will change over time.

## **Goals for This Week**

- Support and acknowledge children as they initiate contact with you, their most familiar caregiver in this setting.
- Gather and record information about the children's interests.
- Gather and record information about the children's development.
- Develop resources and opportunities to increase family connections and support.
- Continue to take photographs of children engaged in activities to post around the classroom. You can also include the photos in teacher-made books and share them with families.

## Things to Keep in Mind

Each child's temperament will continue to impact exploration, emotions, and interactions. Some children might still be warming up to the idea of being in group care and adjusting to the additional activity, sights, and sounds. Other children might already feel secure in their new setting and express an interest in branching out to explore new areas of the classroom and try out new skills. Acknowledge each child's individual pace and make accommodations when necessary. Remember to minimize

### LESSON PLANS FOR A STRONG START

stimulation for children who seem stressed or withdrawn. Observe children's nonverbal cues. Young toddlers will often turn away, cling close to a familiar caregiver, or cry when they feel overstimulated. To support children who are hesitant to venture out, take note of the materials they show interest in (or watch other children using) and bring those materials closer to them, when available.

### **Aspects of Temperament**

Although researchers differ on the number and nature of separate domains of temperament, most agree that any listing should include the following four dimensions:

- Emotionality is the degree to which the child's predominant affect is positive and happy or negative and distressed.
- Inhibition is the degree to which the child approaches and adapts to new situations or people with openness, trust, and curiosity or with avoidance, discomfort, or fear.
- Activity is the degree to which the child's characteristic level of motion is high and energetic or low and lethargic.
- Sociability is the degree to which the child responds to and initiates interactions with people or ignores and turns away from others (Rothbart & Bates, 2006).

Temperament plays a major role in early development (Teglasi & Epstein, 1998). It affects how caregivers react to the child and how the child chooses and interprets experiences. It is important to recognize that temperament acts in a continuous feedback loop; temperamental differences determine both how the child deals with the world and how the world responds to the child.

Although temperament is based on genetics and biology, this does not mean quality of care is unimportant. On the contrary, says psychologist Ross Thompson (2009): "Children's interactions with parents, child care providers, and other people create an environment of relationships in which brain development unfolds and temperamental individuality is expressed" (p. 36). Adults need to be sensitive and responsive, respect emerging abilities, talk about emotions and how to manage them, and be flexible adapting the environment to children's ever-changing needs.

## Materials to Add to the Classroom

As you continue to observe children and take notes on how they interact with you and the environment, take notice of the materials you see children using most often and add similar items.

- Consider positioning materials for easy access. For example, if you notice toddlers regularly retrieving balls out of the basket on the shelf, consider adding more balls of various sizes and move the basket to the floor near the shelf where the balls are easier to see and access. Moving materials can make them more notice-able and enticing to children, but avoid making too many changes too often, as this may be stressful and take away from the predictability that children thrive on.
- Add song cards for "The Wheels on the Bus" and "The Itsy Bitsy Spider" to the song box.

Add a photo or an illustration of sign language hand signs for the word *drink*. Include the word for the sign and a brief description of the handshapes to assist adults in demonstrating or using the sign.

### **Information to Exchange With Families**

As you continue to build relationships with parents and exchange information about their child's day, consider planning an activity for parents to further encourage their involvement in — and their connection to — their child's group-care setting. Parents most likely visited the program prior to enrolling their child, but they may not have had a chance to get to know you or other parents other than from dropoff and pick-up times, which can be busy and chaotic. Plan an event that is casual and easy for parents to participate in and provides an opportunity for them to get to know other families. Ideas include inviting parents for a breakfast, lunch, or snacktime in the classroom; an evening family potluck; or an afternoon tea in one of the center's gathering spaces. Consider the time of day that will work the best for families.

Scheduling different event times throughout the year and giving parents advanced notice allows them to plan ahead and helps meet the needs of their various personal schedules. Events such as these will not only ease families' minds about the quality of care their child is receiving, but they will also help to build a foundation for future exchanges in which you share information about their child's development and together set goals to support continued growth and learning. Parents will also appreciate the opportunity to meet and get to know other families, whether to share information (for example, about babysitters, pediatricians, or resale shops), schedule play dates, or simply offer one another emotional support on the journey of parenting.

Another way to open up communication with families is to create a parent information board in or just outside the classroom where parents will readily see it every day. Information on this board could include photos from the classroom, upcoming classroom events, community family events, and general classroom reminders such as teacher absences, center closing dates, or seasonal reminders of items families will need to bring in for outdoor play (e.g., snowsuit, sunhat, rain boots).

## Day 2

## **Choice Time**

**KDIs:** 4. Distinguishing self and others; 7. Relationships with peers; 10. Playing with others; 24. Exploring same and different **COR Advantage items:** F. Building relationships with other children

Continue supporting children in their observations of and interactions with one another. Describe what is happening near them in relation to other children, pointing out similarities and differences in the materials they are using and how they are choosing to use them.

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Move about their environ- ment and glance at or notice others; enjoy being near other children or seek out more personal space.	Play near others and observe how other children are using materials; seek out materials similar to what other children are using and try out similar actions.	Play near others; make comments to or about other children using a few words or a short phrase; find materials that are similar to what they or other children are using.
Adults can	Adults can	Adults can
Describe what children are doing and how it might be similar or different to what other children are doing (for example, the adult might say, "You're watch- ing Katie bang on the bowl with a spoon. It's making a loud noise. You moved a little bit closer to Katie, and you've picked out a whisk to explore").	Narrate what children are seeing and doing and comment on similarities and differences (for example, the adult might say, "You saw Joseph rolling a ball. You went and found a ball like Joseph's. Now, you're making yours bounce").	Comment on similarities and differences in children's interests and their choice of materials; narrate and comment on what the children are doing (for example, the adult might say, "You both decided to cook in the house area. One of you has a small pan and one of you has a big pan. I wonder what you are each making").

### LESSON PLANS FOR A STRONG START

### **Bodily Care**

**KDIs:** 11. Group participation; 22. Exploring objects

**COR Advantage items:** G. Community; BB. Observing and classifying

Continue to provide gentle reminders for children before performing bodily care tasks. Be sure to let children know what you are about to do as you enter their physical space to wipe their nose, pick them up, or wipe their hands. During bodily care routines, allow children to bring an item they were using or one they really enjoy exploring.

### **Mealtimes**

KDIs: 17. Nonverbal communication

**COR Advantage items:** M. Listening and comprehension

Introduce the hand sign for the word *drink*. As children are drinking their bottles or drinking from a cup, you might say, "You were really thirsty, and now you're having a drink" while simultaneously doing the sign for *drink* by closing your fist, sticking your thumb and pinky out, touching your thumb to your lips, and tilting your hand up.

## **Group Time With Materials** *Primary Caregiver 1*

**KDIs:** 1. Initiative; 22. Exploring objects; 24. Exploring same and different

**COR Advantage items:** A. Initiative and planning; BB. Observing and classifying; CC. Experimenting, predicting, and drawing conclusions; DD. Natural and physical world

### Activity: Exploring Natural Materials

**Materials:** Seed rattles, shakers, or maracas; large shells; smooth pine cones; medium-sized rocks; dried gourds; large feathers; large leaves; medium-sized pumpkins; icicles in tubs; large pieces of bark; large nuts; dried avocado pits

Consider the development and abilities of your individual children when selecting materials. Check for sharp edges and pokey parts before offering materials to children. Provide children with a variety of interesting items from nature. Keep in mind that younger children in this age group are very likely to mouth materials, so be sure the materials can be safely explored by mouths and gums. Allow children to choose and manipulate the materials in their own way.

## Group Time With Materials (cont.)

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Move actively toward the objects they are most curi- ous about; pick up several objects but return to the ones that interest them most.	Explore the materials and respond to the textures through gestures and facial expressions; name some items using a single word; request the name of an item by holding it out to an adult or by asking in a single word (e.g., "This?").	Explore objects and find different ways to use them, such as tapping them together or sorting them into piles; use 3–4 words to name or describe the items or ask an adult to name items.
Adults can	Adults can	Adults can
Narrate children's choices and describe the materi- als they have selected (for example, the adult might say, "You're holding a very big leaf. You're rub- bing your fingers over the smooth surface").	Comment on children's reactions and provide names for the materials; occasionally offer children a new material, accepting that they may or may not choose to explore it.	Comment on the ways chil- dren are using the materials and copy the choices they make; provide the names of materials for children and use a variety of adjectives to describe the materials they are using; occasionally offer children a new material, accepting that they may or may not choose to explore it; point out how the new material may be different or similar to the material they had first explored.

As children begin to lose interest in the activity, gather the materials that are no longer being used. Let children know what will be happening next and allow them to take a safe material (e.g., one without sharp edges) with them to the next part of the day.

### LESSON PLANS FOR A STRONG START

## **Group Time With Materials**

**Primary Caregiver 2** 

**KDIs:** 1. Initiative; 12. Moving parts of the body; 37. Exploring art materials

**COR Advantage items:** A. Initiative and planning; J. Fine-motor skills; X. Art

Activity: Exploring Play Dough

**Materials:** Nontoxic play dough (enough for each child to have his or her own ball to work with); small plastic or wood hammers or wood meat tenderizers (enough for each child to have one)

Offer each child a ball of play dough and allow them to explore it using their hands. Some toddlers still explore materials orally at this age and may taste the play dough — be sure to use nontoxic play dough. Exploring the play dough with their hands gives toddlers an opportunity to squish and squeeze the dough, which strengthens the hand muscles they will later need for activities such as writing, using tongs, and buttoning buttons. In addition, working with play dough provides toddlers with a pleasurable, tension-reducing experience that can be soothing or calming. Support children's explorations by copying their ideas and modeling squeezing, pulling apart, and flattening the play dough.

After children have had a few minutes to explore the play dough, offer each child a hammer (or meat tenderizer) to use with the play dough. Introduce the hammer or meat tenderizer by saying something like "I noticed you pounding the play dough with your fists; here's something else you can use to pound the play dough."

## Group Time With Materials (cont.)

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Pick up the play dough and taste it; pound the play dough with the hammer or meat tenderizer; ges- ture to show an adult what they have done to the play dough.	Hold, squeeze, and pound the dough; use 1–2 words (such as <i>hammer,</i> <i>play dough,</i> and <i>look</i> ) to describe their actions or get an adult's attention.	Squeeze the play dough, roll it in their hands, and pull it apart; notice the imprint or changes when they use the hammer or meat tender- izer and use 3–4 words or a short phrase to comment on what they see.
Adults can	Adults can	Adults can
Comment on children's actions and respond to their attempts to communicate their ideas and actions (for example, the adult might say, "You're showing me your hammer. I saw you pounding with it").	Acknowledge children's efforts to communicate and ask them to repeat their actions (for example, the adult might say, "You look very excited! Show me how you were using your hammer").	Comment on the effect of children's pounding on the play dough and then try out their ideas (for example, an adult might say, "I see, you were pounding the dough with the tenderizer and that made it bumpy. I'm going to try your idea with my dough").

As children begin to lose interest in the activity, let them know that they can try one more idea with their play dough and then it will be time to clean up. Gather up all the materials and offer children a paper towel or cloth to help wipe up the table. As you finish cleaning up, let the children know what will be happening next in the daily routine.

## **Group Time With Movement and Music**

KDIs: 21. Enjoying language

**COR Advantage items:** N. Phonological awareness

Activity: "The Three Little Pigs"

### Materials: None

Tell the story of "The Three Little Pigs." As you tell the story, add opportunities for children to express ideas or actions. For example, you might ask, "What noises would pigs make?" "How would the wolf knock on the door?" "Can you run like the little pigs running away from the wolf?" Accept that children might move about during the story rather than sit still. Shorten the story by telling it with two little pigs, or include the three pigs but have two pigs build one house together.

Scaffolding Learning at Each Developmental Level		
Earlier	Middle	Later
Children may	Children may	Children may
Listen to the story, imitate sounds, observe others, and react to exciting parts of the story; match their facial expressions and body language to the tone in the adult's voice and the actions and noises of the other children.	Watch others, imitate sounds, and say some single words from the story; repeat the ideas of others; observe before trying out different ways to join in the story verbally or physically.	Offer ideas; make single- word guesses about what will happen next in the story; try out the ideas of others.
Adults can	Adults can	Adults can
Comment on children's reactions, body language, and sounds (for example, the adult might say, "You had a surprised look on your face when Marcus made a wolf noise!").	Comment on and copy children's sounds and actions; refer children to one another for ideas; repeat portions of the story or retell it a second time to allow children to join in after observing others.	Ask children what might happen next and for ideas of sounds to make; copy children's ideas.

After the story is finished, invite children to make the sound of an animal or move like one to the next part of the day. Model this type of transition by making the noise or movement of an animal from the story.

## **Outside Time**

Bring out balls of various sizes that children can throw, roll, or kick in the large, open space. Consider balls as small as tennis balls and as large as exercise balls.

## **Transitions**

Remember to move at the children's pace. Even for tasks that are necessary (e.g., changing diapers or clothes, wiping noses), slowing down and moving at a pace that is comfortable for the children can greatly reduce stress for everyone.

## **Other Times of the Day**

## Dropoff

If children are having a difficult time separating or engaging in play, offer a favorite or familiar toy that you notice the child has been using.

Remind parents about the parent lending library (created in week 2), and describe some of the resources available to them. If possible, make connections between available resources and parents' concerns and interests.

## Rest time

While gathering information from families about home routines can be helpful, keep in mind that children's routines can often differ between home and school. Sometimes children nap more easily at school because they are exerting more energy throughout the day. Conversely, sometimes children have more difficulty napping at school where there are typically more people, noises, and distractions than there are in the home environment. Reminding parents about these differences can help ease their minds about changes in their child's routine that occur between home and school.

## Cleanup

As you clean up the space, describe to the children what you are doing and what will be coming next. Consider using the *all done* sign to explain that choice time is over, and let children know what time of day is about to start. You might, for example, say while signing *all done*, "We're *all done* exploring the water; it's time to get ready for lunchtime."

## Pickup

Share ideas with parents about using play dough with children at home. If you make your own play dough, send home the recipe for parents so they can make it at home as well. Play dough cleanup might not be as easy at home, so suggest that families use a plastic tablecloth on the floor or use it outside on a cookie tray to avoid play dough being spread throughout the home.

## **Observations**

Throughout your interactions with children, carefully observe and take specific, objective anecdotes for the following key developmental indicators (KDIs) and COR Advantage items:

KDIs: 7. Relationships with peers; 21. Enjoying language; 24. Exploring same and different; 36. Imitating and pretending

COR Advantage items: F. Building relationships with other children; N. Phonological awareness; AA. Pretend play

## **Follow-up**

Create a mobile of natural materials to hang over the diaper-changing table or near the snack tables. Include items that may not have been used during group time because the items might be choking hazards or have sharp edges. The mobile will give children exposure to such natural materials without the potential risks.

Add play dough to the classroom at the children's level in an area with surfaces that are easily cleaned, such as the art area or near the sand and water table.

### **Stages of Language Development**

#### Stage 1: Crying and Cooing

- Changes in vocal apparatus to communicate needs
- □ Use of eye contact and gestures in newborns (by four months they follow the direction in which adult is looking)
- □ Cooing (begins around 6–8 weeks)
- Beginning of the conversational skill of turn-taking in infants (as early as three months)
- Recognition of familiar voices and natural rhythms from womb

#### Stage 2: Babbling (around 6-12 months)

- Use of short strings of various sounds accompanied by distinct intonation patterns (syllables)
- Use of large range of sounds
- **Q** Recognition of syllable combinations
- Experimentation with tongue, teeth, and lips to produce sounds
- End of babbling in some children when beginning to use words
- Mixtures of babbling and words

#### Stage 3: First Words (around one year)

- Use of isolated, identifiable words
- Concentration on specific sound patterns or words
- □ Beginning use of speech phrases (but to child it is one word e.g., "allgone")

- Accidental and purposeful practice leading to repertoire of sounds and combination of sounds
- □ Use of "pretend words" making up words to mean anything
- Use of first true words (between 9 and 12 months)

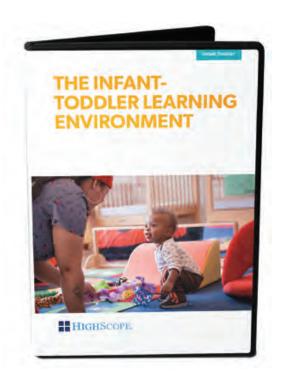
## Stage 4: First Sentences (around second part of first year)

- Combining isolated words to form telegraphic speech
- Use of two- to three-word strings (e.g., "I go you house")
- Tendency to leave out articles, prepositions and conjunctions
- Use of adjectives plus nouns (e.g., "big ball") or verbs plus nouns (e.g., "want milk")

Additionally, children typically hear over 100,000 words each day. From 24 months to five years, children master most of the sound system, learning thousands of words and gaining control over most grammatical constructions. (Adapted from O'Grady, 2005.)

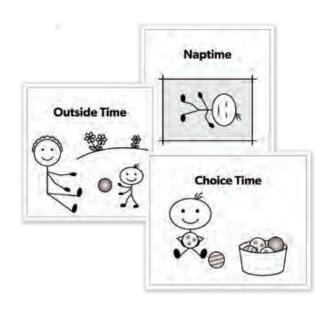
- Reprinted from *Extensions*, Volume 26, Number 3, page 10.

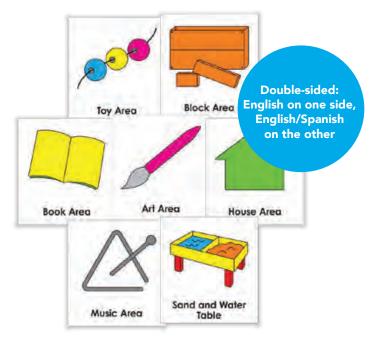
# 2 INFANT-TODDLER CURRICULUM THE LEARNING ENVIRONMENT



Create an engaging and rich learning environment that inspires young children to discover, interact, and solve problems! Designed to support the optimal development of infants and toddlers, this set of materials includes helpful strategies for setting up classroom areas (both indoors and outside) with diverse, open-ended materials that accommodate children's changing needs and interests and reflect their home language and culture.

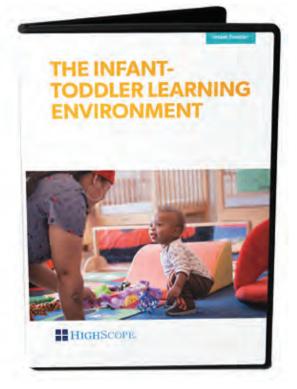
- The Infant-Toddler Learning Environment (DVD)
- Infant-Toddler Daily Routine Cards
- Toddler Classroom Area Signs (also includes small area signs for children's planning)





Curriculum contents also sold separately at HighScope.org

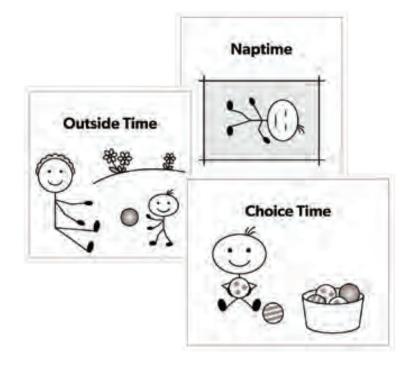
# The Infant-Toddler Learning Environment (DVD)



This DVD includes real-life examples to demonstrate how to create a supportive infant-toddler learning environment that invites children to explore their surroundings and supports their sensory-motor way of learning.

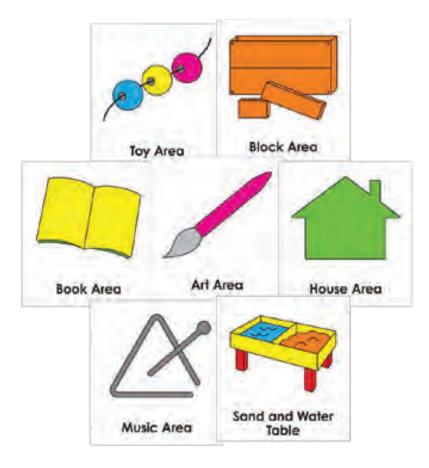
# **Infant-Toddler Daily Routine Cards**

Post this set of easy-to-understand cards to help infants and toddlers visualize and predict what happens next in their day, which supports their social and emotional needs.



## **Toddler Classroom Area Signs**

Use this set of signs to identify specific areas of the classroom, a simple yet effective way to help your toddlers develop key skills by engaging with their environments visually. Also includes small area signs for children's planning.



# 3 INFANT-TODDLER CURRICULUM INTENTIONAL PLANNING

Easily apply the HighScope Curriculum to everyday practice with resources designed to support daily learning. Includes strategies and activities for building literacy and family engagement and developmentally appropriate music for your youngest learners.

- Infant-Toddler Letter Links Book & Subscription
- Let's Play and Learn Together! 30 At-Home Activities for Infants and Toddlers
- Infant-Toddler Song Book
- Big Beats for Young Peeps (CD)
- Rhythmically Moving (CD)



"Using the HighScope Curriculum, we focus on children's strengths through active learning, which we've seen equates with positive child outcomes."





Outcomes Analyst, FL

# Infant-Toddler Letter Links Children's Names as Meaningful Environmental Print



Use the pictures and letters in this book and online subscription set to support the skills young children need to connect symbols with meaning and sounds. This set also includes reproducible examples of letter-linked images and sounds and 25 fun-filled activities that help young children develop an understanding of the alphabetic principle, phonological awareness, sense of word, and vocabulary.



## Letter Links — for Babies?

From the time children are born they begin to communicate using various cries, facial expressions, and body movements. These methods of communication continue to progress over the next few years as children combine sounds to produce words and articulate their thoughts verbally; identify and combine letters and begin to read; and develop the fine-motor skills to create letters to articulate their thoughts in writing. These three elements of communication, language, and literacy develop in ways that are consistent with the communication methods of the

# What's a Letter Link?

I'll use the term "Letter Links" throughout this book in different ways. When capitalized, *Letter Links* denotes the system specifically developed by HighScope to facilitate language, communication, and literacy learning in preschoolers, infants, and toddlers. I'll use the term *letter links* when discussing the association between the image and the initial letter of the child's name. When stressing specifically the image (rather than the relationship between letter and image), I'll use the terms *letter-linked image* or *letter-linked picture*. child's culture; that is to say, language learning is experiential — both social and environmental.

As infant and toddler caregivers, we facilitate this learning by establishing early relationships through playful interactions, responsiveness to infants' cues, and intentional decisions about the children's environment. One system for promoting the development of language, literacy, and communication through a combination of interactions and the environment is Letter Links. Initially developed for preschool classrooms, Letter Links also supports infants' and toddlers' communication, language, and literacy growth in playful and developmentally appropriate ways while allowing for consistency of environmental print between preschool and infant-toddler classrooms.

Letter Links is a system that pairs a child's printed name with a letter-linked picture of an object that starts with the same letter and sound: Benjamin and balloon (), Dionne and duck (), Lulu and ladybug ().

Building on the early attachment relationship, familiarity with caregivers and peers, and daily routines, Letter Links introduces young children to alphabet letter names and sounds through the letters and sounds in their own names.

The Letter Links system is a classroom tool and a collection of strategies for playfully building language, literacy, and communication learning into regular, personal interactions by placing intentional emphasis on a child's name.

It is important to recognize that, while young children will have experiences with the sounds and letters in the names of other children as described through the strategies in this book, Letter Links is not meant as a tool for direct instruction of phonological awareness and alphabetic knowledge. Instead, Letter Links is useful in the classroom as recognition that a language-rich environment is important to children's early brain development and can have strong effects on early language, vocabulary, reading, and math skills, as well as children's social-emotional development (US Department of Education, *n.d.*).

Using children's names as a foundation for building relationships and exploring sounds and letters keeps learning focused on a personal and meaningful component of the child's life. This book includes many strategies for a variety of multidisciplinary experiences, supporting the simultaneous development of new skills — or strands of learning experiences, another component of authentic and transferable language learning. "Young children need many opportunities



to develop these strands interactively, not in isolation. *Meaning*, not sounds or letters, drives children's earliest experiences with print" (Neuman & Roskos, 2005).

To help you get started, this book includes a review of the research on the development of symbol recognition, alphabetic principle, and phonological awareness. The review provides the rationale for using letter-linked images with children's nametags and explains the letter-sound correspondence between children's names and letter-linked pictures. Chapter 2 provides step-by-step directions for using Letter Links with the children and families in your program. In addition, this chapter includes the answers to several frequently asked questions about the Letter Links system. Chapter 3 provides several strategies — both interactions and activities to use throughout the day to emphasize the communication, language, and literacy concepts introduced through Letter Links. Chapter 4 provides sample images of letter links organized by letters and sounds common to the English language. These sample letter links are organized alphabetically by beginning letters and sounds. Additional images and samples can be found through the online Letter Links program (https://letterlinks.highscope.org/).

### What the Research Says

As with any area of development, there is a typical progression of communication, language, and literacy growth that emerges in the infant and toddler years. This progression includes essential components that are directly connected to and supported by the use of the Letter Links system, such as speaking (or producing sounds), symbol recognition (or identification of environmental print), alphabetic principle (or letter recognition), phonological awareness, and writing. In infant and toddler classrooms, we support the development of these skills through social

interactions with adults (and increasingly with peers, as well, as infants become toddlers) and by recognizing these skills as interrelated elements of young children's development. It is the child's desire to communicate that drives emerging literacy skills. By engaging in give-and-take conversations with young children, singing, and reading books aloud, we stimulate and scaffold children's ability to use and comprehend language in a variety of ways (Hohmann, Post, & Epstein, 2011). "Language development occurs in the context of relationships. Emotion and language development in the early years are linked" (California Department of Education, *n.d.*). By understanding how these skills are intertwined, we can plan intentional ways to effectively support young children's language learning and their emerging ability to communicate with others.

### Speaking and Producing Sounds

As soon as children are born they begin exploring sound through crying and, shortly after, through cooing, babbling, and imitating sounds. This development continues to include the creation and consistent use of recognizable syllables such as "ma" to indicate "mom" or "da" to indicate "dad," and even further to produce words and sentences to verbally express their ideas, feelings, and needs to others. In infancy, children focus on distinguishing phonemes and exploring how to make these sounds over and over. When they coo and babble with a caregiver, for example, they are exploring phonemes (Maguire-Fong, 2015). Caregivers can scaffold this exploration to mastery by offering repetitive sound experiences through stories, songs, rhymes, and fingerplays.

In just a few short years, this exploration and mastery of new sounds becomes beneficial comprehension of how language works and how to communicate verbally with others. Studies of oral language competence show a direct relationship between children's spoken language vocabulary and their later success as readers (Hart & Risley, 1995). Therefore, the exposure to and scaffolding of communication and language development in the infant-toddler years is essential to later literacy success.

The rate of language acquisition is rapid. By 18 months, most children can use 50 words and comprehend about 100 more; this jumps to about 1,000 words by the child's third birthday (Medina, 2015). However, there is a significant socioeconomic difference in language exposure and vocabulary development. By three years of age, there is a 30 million word gap between children from the wealthiest and poorest families — that is, by the age of three, children in the top socioeconomic tier hear up to 30 million more words than their counterparts in the lowest socioeconomic tier. A recent study shows that this gap has an effect on vocabulary that is evident in toddlers. By 18 months, children in different socioeconomic groups display dramatic differences in their vocabularies (Colker, 2014). This provides early

childhood educators and parents with a unique opportunity and an important responsibility to support children's long-term communication, language, and literacy development through daily interactions and intentional environmental components.

Like many other components of learning, young children grasp new concepts best when they are engaged in experiences that are personally meaningful. In regard to speaking and producing sounds, these first meaningful experiences often start

simply with the child hearing her own name. Everyday routines can be used to emphasize a child's name. For example, addressing, caring for, and interacting with an infant builds the child's personal connection to and familiarity with the sounds in his own name. Use children's names as you say hello, as you are about to pick them up for a diaper change, or any time you are trying to get their attention. It is likewise meaningful to use the names and sounds of other familiar



people such as the parents, primary caregiver, or peers. This secures the concept that people and objects can be identified by producing consistent sounds or names.

### Build children's vocabulary.

- Read a variety of types of books to children throughout the day.
- Tell made-up stories and real stories about things children have experienced.
- Describe children's experiences using a variety of words and synonyms for familiar objects.
- Increase vocabulary and verbal skills by using self-talk, parallel talk, and simple sign language.

### Symbol Recognition and the Use of Environmental Print

As young children become familiar with the idea that people and objects can be identified by consistent names, they will begin to recognize that objects and symbols in the environment also have meaning. The sight of a bottle or a box of Cheerios coming out of the cupboard means that food is coming. As children enter the toddler years they begin to recognize symbols in the community and connect a particular meaning or experience. Understanding that a McDonald's sign consisting of integrated print and golden arches says "McDonald's" and means *a place to get* 

*food* is critical to beginning reading and the ability to comprehend print. At this early phase of literacy development, young children's ideas about how written text works and how the printed word and symbolic representation are related are not connected to their knowledge of alphabet letters or to the sounds in language. Instead, their understanding is related to emerging awareness of symbols and representation (DeBruin-Parecki & Hohmann, 2003). Repeated exposure to consistent symbols in the environment such as a McDonald's sign allows young children to build the skill of recognizing and comprehending the meaning of information in their environment.

This is true for any consistent and personally meaningful text, especially the child's own name and the names of familiar people. Children begin to recognize



that the written form of their name is a personal label that belongs to them (DeBruin-Parecki & Hohmann, 2003). Rather than being able to distinguish between each letter in their name, young children begin to recognize their name as a whole or a symbol of identity. This is an initial developmental stage in understanding that words and letters convey meaning, and this early form of symbolic representation establishes the groundwork for young children to recognize words in print. And these experiences are impactful not only during the infant and toddler years, but extend far beyond the time children are in our care. "Studies show that infants who are faster at recognizing familiar words at 18 months have larger vocabularies at age two and score higher on standardized language assessments in kindergarten and elementary school" (Demma & Hickey, 2014).

Through the consistent use of letter links in the classroom, young children can benefit from their developing ability to attach meaning to a familiar symbol and do so increasingly with motivation connected to something personal — their names.

#### Create a print-rich environment.

- Use a combination of pictures and words to label objects, post a daily routine with words and photos, and post photos with children's names and letter links.
- Incorporate both published and teacher-made books into several areas of the classroom and throughout the daily routine.

## Alphabetic Principle and Letter Recognition

Infants and toddlers are born with the ability to see objects and symbols that they begin to recognize through repetition. As they grow and develop and language emerges, they begin to recognize unique characters with specific shapes, and later understand that when those characters are placed in a certain order, form words. As toddlers, they may start by initially seeing their names as a whole symbol representing who they are rather than a collection of individual letters that together create meaning. Also in the toddler years, children begin to distinguish a square from a triangle, a circle from a square, and so on. Being able to decipher one shape from another is an important precursor to distinguishing one letter from another — that is, to notice that a form has specific characteristics that make it different and unique from other forms.

This ability is a precursor to the development of the **alph abetic principle**, the awareness of the relationship between letters and sounds (DeBruin-Parecki & Hohmann, 2003). As young children are not yet able to read, they may not understand the role that letters play in written text, nor are they aware of the sounds produced to communicate verbally. They must first be able to visually distinguish an *m* from a *d*, for example, in order to later attach a unique sound to each letter. Young children then acquire increasing knowledge about these specific connections — that is, the sound(s) associated with each letter — through social interactions and intentional environmental strategies. These skills are critical for children to be able to learn to decode the text on the page. Children will often distinguish letters that are familiar to them first, such as the letters in their name, or other letters they frequently see around them, such as the *S* on stop signs (Shrier, 2013). We can increase children's letter identification through repetition and an awareness that children achieve this recognition because their names are of personal importance to them (Epstein, 2014).

#### Support alphabetic knowledge and letter recognition.

- Provide three-dimensional alphabet materials, identify letters in the environment, and identify commonalities between letters in print and letters in children's names.
- Refer to letters as natural opportunities arise, keep it playful, and avoid quizzing children or pressuring them to recognize letters.

### Phonological Awareness: Cracking the Letter-Sound Code

Infants and toddlers begin exploring and distinguishing the difference between sounds as young infants, starting with recognizing the voices of their primary caregivers, responding physically and verbally to the sounds in the environment, and identifying familiar noises. Experiences with environmental sounds (voices, appliances, vehicles) lay the groundwork for discriminating among the discrete sounds that make up words (Epstein, 2014).

As young children grow and develop, they begin to notice subtle distinctions between sounds and words and can comprehend and produce these subtle differences to communicate. They learn that *hi* is a greeting while *hat* is something you wear on your head. This will further progress into exploring and eventually understanding that words can be broken down into a letter-sound code.

The English alphabet has a rather complex letter-sound code because each letter does not precisely match the sounds it represents and a letter can stand for more than one sound. Young children begin to crack the letter-sound code by learning the names of the alphabet letters that have personal meaning to them. They also explore beginning sounds in words that begin with the same letter and sound

# Phonological Awareness and Dual Language Learning

It is important to carefully consider the development of sound production and distinction for children learning more than one language at a time — such as a child learning English in their child care setting, and the family language at home. When children are learning more than one language simultaneously, they learn phonemes of both languages simultaneously as well. In fact, when learning two languages at the same time, they are able to discriminate between the sounds of the two languages by the end of their first year (Hammer, et al., 2015). While this sophisticated sound decoding develops, caregivers may notice sound production of dual language learning infants and toddlers may not be equivalent to their monolingual peers. Not to worry — they will catch up by the preschool years (Hammer, et al., 2015).

(*Debbie, duck, deer*), leading them to an initial understanding of both the alphabetic principle (described above as the knowledge that there is a systematic relationship between letters and sounds) and **phonological awareness** — the general ability to attend to the *sounds* of language as distinct from the *meaning* (DeBruin-Parecki & Hohmann, 2003).

Phonological awareness allows young children to consciously attend to the sound chunks within words such as syllables, rhyming words, and similar initial or ending sounds. Much of this development comes later than the toddler years, specifically the ability to segment words and isolate individual syllables; however, infants and toddlers can explore phonological awareness through songs, fingerplays, rhymes, and daily conversation. When adults playfully emphasize similar beginning sounds between words (alliteration) and similar ending sounds of words (rhymes), it supports toddlers in noticing and repeating these sounds and patterns in the English language. As young children hear nursery rhymes over and over and begin to join in saying them, toddlers hear and repeat words

that rhyme like *cat*, *bat*, and *bat*, which end in the same /at/ sound (Hohmann, Post, & Epstein, 2011). In addition, when young children hear lots of words and begin to use some themselves, they mentally organize these words based on their

initial sound. For example, they mentally store all the words that start with the /b/ sound together, all the words that start with the /c/ sound together, and so forth

(Hohmann, Post, & Epstein, 2011).

While many of these experiences come through as playful interactions, they are essential to young children's future communication, language, and literacy development. The number of words children hear and experience early on is directly connected to the size of their vocabulary and eventually their ability to read. In addition, infants and toddlers who have heard lots of language and as a result have stored



lots of words by sound are more likely to gain phonological awareness rapidly and with greater ease than children who have heard very few words from birth to school age (Hohmann, Post, & Epstein, 2011).

### Build phonological awareness.

- Explore sound-making materials inside and outside the classroom; regularly incorporate songs, poems, rhymes, books, stories, and fingerplays.
- Identify rhymes and alliteration and clap the syllables of words or names throughout your interactions.
- Identify commonalities between familiar words and children's names.

## Writing and Fine-Motor Skills

While we don't often think of infants and toddlers as writers, it is important to consider how their development in the infant and toddler years contributes to their future ability to communicate through the written word. There are several areas of development that are critical to the ability to write. In infancy, children are largely occupied by motor development — the ability to use and control one's body. Proximodistal growth patterns dictate that young children will first gain control of their limbs before they have full control over their hands and fingers — their fine-motor skills. Providing young children with a variety of things to hold and manipulate prepares them for the fine-motor control needed to hold and use a writing utensil.

In addition to focusing on their motor skills, infants are learning how to communicate their needs and understand the world around them. Early, predictable, and safe relationships between infants and their caregivers support this learning and communication, which increases infants' comprehension of the meaning and purpose behind the give-and-take of information.



In the toddler years, children have increased control of their motor skills and they become more aware that writing and symbols are a way that we exchange information with other people and in our environment. This increases their interest in using writing utensils. They begin with scribbling and move through the following stages: systematic up and down scratching, horizontal movements combined with vertical strokes, separate symbols, correctly

formed letters mixed with incorrectly formed letters, and finally the correct spelling of their first name with occasional reversals or letter malformation (DeBruin-Parecki & Hohmann, 2003). In the toddler years, it may be hard to detect meaning from young children's early scribbles. However, they can often describe what they have "written" and often their first distinguishable marks are letters in their own name (Shrier, 2013). We can encourage children's interest and comprehension of the purpose of writing by recognizing the importance of personal meaning in writing experiences, modeling writing, and providing writing materials in toddler classrooms.

#### Promote writing experiences.

- Model writing by taking anecdotes and taking dictation from children as they tell or act out stories.
- Provide writing materials in the classroom environment for older children to explore and imitate your actions.
- Provide supervised opportunities (such as group time) for younger children to scribble and use a variety of writing materials (crayons, silky crayons, markers, pencils, colored pencils, chalk, etc.).
- Imitate what children are doing when they use writing materials.

### Meaning ful Interactions and Emerging Communication

Social beings from birth, babies are wired to connect with other human beings, and this connection creates a context of meaning and belonging. Therefore, brain development is best supported by a strong and positive connection to a caregiver (WestEd, 2017). These early relationships provide the foundation for all later and emerging learning and fuel the development of language and literacy skills. Infants and toddlers communicate their feelings and desires through an increasingly complex system of cries, motions, gestures, and sounds that are acutely attuned

to the body language and the warm, gentle voices of parents and caregivers (Hohmann, Post, & Epstein, 2011). "Before being able to use language effectively, infants acquire some understanding of the social processes involved in communication. They learn about the social aspects of communication through engaging in turn-taking behavior" (California Department of Education, *n.d.*). Young children develop their emergent communication, language, and literacy skills best when they are able to find personal meaning in the process, they play in environments rich with print and text, and they are supported by knowledgeable teachers who engage them in experiences closely related to their own lives, interests, and abilities.

Engage children in frequent social interactions throughout the day.

- Bond with children by using meaningful language and engaging in conversations throughout the day.
- Pause to allow children to process and respond.
- Encourage children to engage in social interactions with one another.
- Describe children's experiences and add language to their actions and discoveries as they play.

# Let's Play and Learn Together! 30 At-Home Activities for Infants and Toddlers



All teachers know that learning doesn't have to end when children leave child care for the day! The 30 infant-toddler activities in this book are designed to help children and their families keep active participatory learning going at home as well. You can offer family members copies of these activities, along with tip sheets and how-to instructions at parent meetings, pick up or drop off times, or during other interactions. Simply photocopy these materials from the book or print them from the accompanying CD. The activities are grouped into five categories:

- 1. Art, Music, and Movement
- 2. Communication, Language and Literacy
- 3. Early Math and Discovery
- 4. Myself and Others
- 5. Physical Development and Healthy Habits

# **PREVIEW** Let's Play and Learn Together

Sing, Sing, Sing

Cost: None Mess factor: None Suggested location: Anywhere

#### Experiences your children will have

- Growing calm or becoming alert to sounds, tones, or music
- Responding to other people singing by joining in with vocalizations or motions

#### Materials

• Your voice and your children's voice

#### Beginning

Start this activity at any time (i.e., during your infant's alert moments or when having difficulty sleeping). Choose a song to sing based on your child's mood (a quiet lullaby if your child is upset or a song that is more upbeat).

#### Middle

If your infant is upset or trying to go to sleep, softly sing a lullaby or simply repeat his or her name and offer quiet words of assurance in a melodic way. Often, infants will stop crying, calm down, or fall asleep when they hear the soothing sound of a parent's or a familiar caregiver's voice.

If your infant is happy, sing a song that is more upbeat or one that includes movements and allows you to make up the words as you go along. For example, you could sing, "If You're Happy and You Know It" and adapt the lyrics as follows: "If you're happy and you know it, nibble Anna's toes..." or "If you're happy and you know it, kiss LeVar's tummy..." An older infant may "sing" with you or join in with some familiar hand or body movements. For example, you might sing and clap, "If you're happy and you know it, clap your hands," and your child might clap as well.

When introducing hand and body movements, think about your infant's developmental level and the milestones he or she has already reached, and customize the song to encourage what you know your child can do (e.g., if your child waves "bye-bye," include that as a verse of the song: "If you're happy and you know it, wave bye-bye"). Some other ideas (and you can think of some of your own as well) include: "Lift your arms," "Kick your feet," "Shake your head," "Pound the floor," and "Bounce up and down."

# **PREVIEW** Let's Play and Learn Together

# Do You See What I See?

Cost: None Mess factor: None Suggested location: Anywhere

#### Experiences your children will have

- Searching for objects in their immediate environment
- Naming objects

#### Materials

• None

#### Beginning

Tell your child that you are going to play a game where you have to hunt for things around the room: You are going to tell your child to hunt for something, and he or she is going to look for it. Start with objects that are big and easy to see. For example, you might say, "I spy a big, blue pillow." Encourage your child to point to or touch it.

#### Mid dle

For younger toddlers and for the first few rounds of play, keep the objects simple. Use the names of objects (e.g., *truck, pillow, bowl*) rather than descriptive words about the object (e.g., *red, bumpy, small*). If your child is struggling to find an object, give simple clues by pointing in the right direction or naming something that is near it. You can also collect a few items and encourage your child to locate an object from this small collection.

As your child becomes more familiar with the game and develops an increased vocabulary, increase the challenge by choosing objects that are partially out of sight (or out of sight but in a familiar place) or by giving descriptive words about the object (e.g., "It's something red that you put your head on when you go to sleep").

#### End

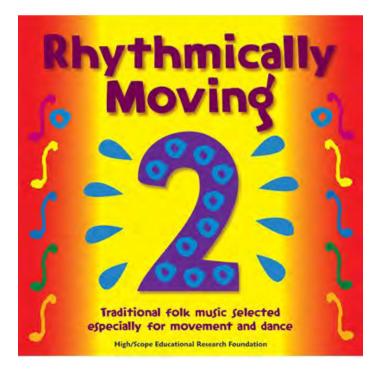
When you child begins to lose interest or it's time to move on to the next part of your day, let your child know that they can search for one more object and give them one to find (if you are short on time, make it something really obvious).

# **Infant-Toddler Song Book**

Make it easy and fun for children to choose a song from this collection of 25+ wellknown songs or nursery rhymes, each represented by a picture and a title. These visual reminders help young children build connections between symbols, language, and sounds. Adding more choices is simple. Perfect for large-group time!



# **Rhythmically Moving CD**



Help the children in your program develop physical and cognitive skills that benefit learning across the curriculum, such as physical coordination, concentration, and the ability to process information and act on it. These recordings also provide opportunities for steady beat competence, dance experiences, creative movement, exercise routines, listening skill development, and instrument identification. This CD includes high-quality, age-appropriate instrumental music selections that provide a rich musical back-ground for movement activities.

# **Big Beats for Young Peeps CD**



Looking for fresh and fun music to share with young children? Big Beats for Young Peeps offers teachers and parents of children from ages 0-8 high-quality, ageappropriate instrumental selections that provide rich musical beats and rhythms for movement activities. Produced by Chip Dixson, an accomplished music producer who's worked with P. Diddy (Sean Combs), Beyoncé, and Jay-Z, the 20 songs on Big Beats for Young Peeps reflect a variety of musical genres, including hiphop, jazz, reggae, Latin pop, and techno. The CD comes with a user guide with details on how to use these songs to support children's movement, executive function, and self-regulation skills during group times.

Click here to listen to samples of the songs.

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