2019 Update

New Jersey Early Childhood Education

Preschool Classroom Teaching Guidelines

New Jersey Department of Education
DIVISION OF EARLY CHILDHOOD EDUCATION

Forward

In 2015, the New Jersey Department of Education utilized state and federal funding from the Race-to-the Top Early Learning Challenge Grant to develop the New Jersey Preschool Classroom Teaching Guidelines.

The purpose of the guidelines is to outline and provide insight into multiple dimensions of professional practice for early childhood educators and to assist them in applying professional competencies and instructional methods that are both developmentally appropriate and academically challenging for 3- and 4-year-old children.

Intended as a practical framework, the document includes broad-based principles, vignettes, teaching and learning goals, and specific classroom teaching practice examples. Reflections within the guidelines help communicate the complexity of the early childhood teacher's role while also addressing key elements of a high-quality early childhood program.

The guidelines are the work product of a collaboration that spans local school districts, higher education, national experts, and state and federal agencies. The initial version was developed in partnership with William Paterson University (WPU), national researchers, New Jersey practitioners, and Early Childhood Education specialists at the New Jersey Department of Education. Dr. Holly Seplocha, Professor of Early Childhood Education at WPU, led the development of the initial document.

Regular updates to the New Jersey Preschool Classroom Teaching Guidelines continue to ensure relevancy, ongoing professional development and inspiration for educators, families, and policy makers. The contributions of early childhood specialists at the New Jersey Department of Education help assure that the New Jersey Preschool Classroom Teaching Guidelines reflect New Jersey schools, current research, best practice, and the unique strengths and assets of young children, families, and communities.

The guidelines were originally released in 2015 and updated in 2019.

NEW JERSEY
STATE BOARD OF EDUCATION

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Introduction

For many young children, preschool is their first experience in formal education and an educator is privileged to be part of that experience.

Being a preschool teacher is energizing, draining, exciting, challenging, and never boring. It takes more than just enjoying being with young children. Being a preschool teacher also requires patience, creativity, enthusiasm, flexibility, humor, dedication, respecting diversity, knowledge of and appreciation for the development and learning of preschoolers, and support and appreciation for the uniqueness of families. As a preschool teacher, you set the stage for the child's and family's ideas about school in general and attitude toward learning. Preschool teachers can make a lasting difference in the lives of children and their families.

The New Jersey Department of Education Preschool Classroom Teaching Guidelines are a resource for preschool teachers to guide, inform, and empower instruction in developmentally appropriate ways. The guidelines are designed to support and provide guidance in implementing the New Jersey Preschool Teaching and Learning Standards (2014). The Division of Early Childhood Education and Family Engagement partnered with William Paterson University to produce the guidelines as part of a continuous, comprehensive approach to early childhood education in New Jersey. The guidelines compliment the New Jersey Kindergarten Program Guidelines and First through Third Grade Implementation Guidelines.

These guidelines purposefully connect theory and best practice by:

- drawing on vignettes of classroom teaching to demonstrate what effective preschool teachers do and say.
- sharing concrete strategies for planning and implementing curricula in ways that young children develop and learn.
- giving tips and advice to ensure environments, routines, and classroom management support children's needs and explorations and build classroom community.
- integrating the vital role of interactions and teachable moments
- exploring the roles and professional responsibilities of preschool teachers as leaders and in engaging families and communities.

To facilitate utilization of the guidelines the document is divided into five key sections:

Section 1: Young Children as Learners provides a foundation and exploration for young children as learners. It addresses developmentally appropriate practice, development in key domains, and play as an essential vehicle for learning. Also discussed are the influence of contextual factors and self-regulation on learning and development and how teachers can be responsive to the diversity of learners.

Section 2: Setting Up to Support Learning invites teachers to delve into the vital aspects of the learning environment including room arrangement, centers, health and safety, gross motor space and equipment, and schedules. Teachers will also find support for building classroom community through effective classroom management, schedules and routines, class rules, adaptations to the environment, and managing challenging behaviors.

Section 3: Intentional Teaching presents teachers with assistance in being purposeful in observing, documenting, and assessing learning. As interactions are at the heart of teaching, effective strategies for interacting throughout the daily routine and activities, individualizing, fostering engagement, asking questions, and supporting Dual Language Learners and children with special needs are included here.

Section 4: Exploring Curriculum offers teachers a focus and strategies for content areas: Language and Literacy, Mathematics, STEAM (Science, Technology, Engineering, Art, and Math), and the Arts. Approaches to planning meaningful instruction through an integration of content and skills that are relevant and reflective of the children, including modifications in instruction for dual language learners and for children with special needs are presented.

Section 5: Moving Beyond the Classroom engages teachers in looking beyond the classroom to themselves as reflective and committed professionals, team members, lifelong learners, collaborators in children's transition to kindergarten, developers and users of Student Growth Objectives, and family and community partners.

Section 1: Young Children as Learners

Preschoolers, children ages three to five, learn best in secure, individualized settings in which the adults know and apply knowledge of child development and understand and respond to what makes each child unique. Responsive teaching—being sensitive to individual children, fostering positive relationships, and respecting children's autonomy—supports cognitive, language and literacy, and social development (Hamre, Hatfield, Pianta, & Jamil, 2013). Thus, we know that one of the most effective ways young children learn is through positive relationships with their teachers. Dombro Jablon, and Stetson (2011, p. 5) describe "powerful interactions," a relationship-based teaching strategy that consists of, "very intentional and purposeful exchanges between a teacher and a child that can have a significant and highly positive impact on learning."

Preschoolers also learn through active, hands-on experiences that allow them to use their senses to explore and investigate. In this age group, children learn about science, math, and social studies concepts through experiences. While making playdough, they observe what happens when they add the various ingredients, while painting they learn what colors to mix together to make a new color, and while playing in the house corner they learn how to control their impulse to grab a favorite prop because they want the play to continue. Teachers plan the environment, activities and daily routines with learning goals in mind based on knowing their children, and their knowledge and understanding of how children develop and learn. Teachers support hands-on learning by observing and responding with new activities, materials, questions, suggestions, and resources that build on interests and foster continued learning and skill development.

Preschoolers are working hard to make sense of the world. They sort and categorize and combine objects and ideas and sometimes their thinking is novel, but not necessarily correct. Teachers can introduce the scientific method to help children plan and analyze the results of experiments.

As discussed in a later section, preschoolers' essential vehicle for learning is through play. Playful learning experiences can be child-initiated or adult-directed (Epstein, 2014) and include construction, physical experiences, games, sensory explorations as when in the sandbox, and through pretend play, and later, high level socio-dramatic play with complex themes, characters, and story lines.

Preschoolers acquire information from books, pictures, and engaging experiences such as field trips in the community or visits by experts such as a veterinarian. In addition, direct teacher instruction plays a role in conveying important information that cannot be learned through direct experiences.

This section reviews the definition and basic principles of developmentally appropriate practice, how preschoolers develop in different domains, and the importance of viewing family, culture, language, and community assets as contributors to and supporters of children's development.

Decades of research suggest that children learn best when they are active (rather than passive), are engaged (not distracted), and find an activity meaningful, and when an activity is socially interactive (Hirsh-Pasek & Golinkoff, 2015, p. 1

Developmentally Appropriate Practice

The term developmentally appropriate practice describes a framework for teaching and learning that reflects children's ages, individual characteristics, and cultural backgrounds. Whether creating an engaging classroom environment, leading activities, interacting with children, or documenting progress, effective preschool teachers are intentional in their application of developmentally appropriate practice. They thoughtfully plan and implement a program that encourages development and learning for all the children in their group. Developmentally appropriate practice includes three core considerations, as follows (Copple & Bredekamp, 2009, pp. 9-10).

1. **Child development and learning:** Preschool teachers apply their knowledge of what is predictable during the preschool years. They practice life-long learning by studying new research about young children's development and the best ways to encourage learning in the preschool years. This child development knowledge is applied in all teachers do.
2. **Individual characteristics:** Preschool teachers use a variety of methods to get to know and keep up to date about each child as an individual. They observe and document children's activities to learn about their interests, how they use toys and other materials, solve problems, interact with others, and approach new situations. Much is learned about each child as teachers engage in play and conversations, discuss problems and potential solutions, and invite and answer children's questions.
3. **Culture and families:** All preschoolers arrive at school having had numerous experiences in the context of their home and community. These experiences have played a role in the child's development and learning and will continue to influence how and what the child learns in the future. Preschool teachers need to learn about the "values, expectations, and factors that shape their lives at home and in the community."

Developmentally appropriate teachers consider knowledge of child development, individual children, and culture and families when implementing a curriculum that targets key early learning standards for the preschool years. The curriculum meets children at their current skill levels and fosters individual and group progress. The materials, activities, and interactions offer challenges without causing frustration. The goal is for all children to experience success and be motivated to learn. Each developmentally appropriate preschool classroom is as unique as the enrolled children and their families.

In developmentally appropriate preschool classrooms, teachers:

- offer a wide range of choices: A child can select a puzzle with eight pieces or 20 pieces, based on their skill levels.
- provide opportunities to learn in multiple languages: A child can look at a book written in English or in their home language.
- support varied developmental needs: At nap time one child can fall asleep while another child plays quietly on a cot or at a table.
- encourage special interests: A teacher helps a child look on the web for information about lizards after a field trip to the nature center.

- include cultures and families: The classroom collection of musical instruments includes a guiro from Latin America, a kalimba (thumb piano) from Kenya, and ankle bells from India. It is important to include the cultural groups of the children and community. Artifacts and activities should be reflective of the children's cultural experiences.
- acknowledge children's efforts and accomplishments: A teacher kneels next to a child and quietly comments, "Tatiana is a long name. You worked hard to write all the letters in your name."
- plan and implement an environment and curriculum that allows all children to join in: At group time children sit on carpet squares, beanbag chairs, exercise balls, or on the floor with supportive foam wedges.

Developmental Domains

In the early years, children develop and learn in multiple domains simultaneously. The developmental domains include physical (both fine and gross motor skills), cognitive, social, emotional, and language and literacy. Each domain supports and is supported by the other domains. Consider a preschool cooking activity, baking pretzels. This experience certainly helps children think and make sense of science concepts, especially when accompanied by plenty of discussion and asking and answering questions. However, it can also enhance creativity and fine motor skills as children shape their pretzels and add toppings, math as children measure ingredients, and social skills as children work together and then share their pretzels. If children document their discoveries, they may write, or dictate to the teacher. Thus, one activity, supports learning in several domains.

Because all domains of learning are connected, skills in one domain are often applied when acquiring skills in another domain. In addition, with a domain, "many aspects of children's learning and development follow well documented sequences, with later abilities, skills, and knowledge building on those already acquired" (Copple & Bredekamp, 2009, p. 11).

Physical Development

Preschoolers' physical development includes gaining fine motor abilities that allow children to draw, write, and dress themselves, and gross motor skills used to run and jump, handle balls, and build structures indoors and outdoors. Fine motor skills include being able to coordinate use of the small muscles in the hands, wrists and fingers. Gross motor skills involve the large muscles in arms and legs and the movement of the torso, as when a child sways from side to side while dancing to music. Typically, physical development follows a sequential and predictable pattern. Development starts at the top of the body, as when infants learn to control head movements before they learn to sit. Most children learn to throw underhand before learning to throw overhand. In addition, development moves from the center of the body to limbs, arms and legs, and then fingers and toes.

Most three-year-olds arrive at preschool with an array of fine motor abilities. They can put on their socks and shoes, turn pages in a book, and hold and scribble with a crayon. During the next year, with plenty of opportunities to practice, they will be able to grasp and string beads on a shoe lace, use utensils to serve and feed themselves, and hold and cut with scissors. Four-year-olds build on these

fine motor skills as they manipulate smaller objects, such as small table blocks, and use tongs to move small objects from one container to another.

Fine motor skills are closely linked to reading, using a computer or tablet, playing an instrument, handling math and science tools such as a magnifying glass or a scale, and engaging in the creative arts such as painting or molding with clay. They are also critical for children who are learning to write. Children who lack fine motor skills will have difficulty holding pencils and other implements and may need a teacher's help to record their ideas in writing.

As with fine motor skills, many three-year-olds have mastered gross motor movements. They can run, use riding toys, walk down stairs, throw large balls, and carry large items. Soon they will learn to pedal tricycles, throw underhand, and hop and gallop. By the time they are four, after spending lots of time playing outdoors and in open spaces indoors, they will be learning to skip, toss bean bags in a basket, hit a ball with a foam bat, and walk along a balance beam.

Many gross motor opportunities encourage social development as children play physically demanding games with each other. When children master specific skills, their emotional development can be affected. Often, they feel proud of their expanding gross motor skills, as when a child climbs to the top of the slide or learns to walk all the way across the balance beam without falling.

As with all domains, physical development is linked with and supported by the other developmental domains. In addition, children use their senses in combination with physical skills. Perceptual motor skills, such as kicking a ball and stringing beads on a lace, are movement related skills that require coordination of senses, cognition, and fine and large muscles. Perceptual information also gives preschoolers greater understanding of their bodies in space allowing them to move around without bumping into each other and items in the space. "Perceptual development is largely dependent on the development of the brain and central nervous system—the exact timing of which varies—but for the most part, the senses of sight, touch, smell, taste, and hearing are well developed by the preschool period." (Copple & Bredekamp, 2009, p. 115)

Eye-hand coordination is a key part of perceptual motor development. Preschoolers first consider what is involved in doing a task—such as tossing a bean bag in a basket--then coordinate physical and visual skills to aim and throw the bag into the container. Preschoolers need eye-hand coordination to hold a marker and draw or write on paper, use a fork while eating macaroni, squeeze just enough toothpaste onto a brush and then use it to brush teeth, and pour water in and out of containers.

A coach might ask an athlete to visualize aiming and releasing a basketball, then watching it arc and go into the basket. Similarly, teachers might help a preschooler to review the steps involved in coordinating visual and physical movements with sensory information. "It's time to water the garden. How can you and Rebecca work together to fill the watering can and carry it to the plants?" "Watch where the ball goes and reach your arms out to catch it." Scaffolding is an ideal strategy for supporting perceptual motor skills. It might take the form of varying materials—for example, offering paint brushes of different sizes and widths, or setting up bowling pins then encouraging children to move farther and farther back as they get more skilled at aiming and knocking down the pins.

Physical fitness is an important outcome of physical development. According to the National Association for Sport & Physical Education preschoolers need at least two hours per day of physical activities (NASPE, 2002, pp. 5-11). Half of the time can be planned activities with the other half consisting of unstructured play. Physical fitness includes endurance, strength, and flexibility. Endurance strengthens the heart and is the result of frequent aerobic activities such as running and pedaling. Strength-building is just what it sounds like—becoming stronger as when moving a heavy log or climbing up to the classroom loft.

Cognitive Development

Cognitive development, or cognition, includes the growth and changes in thinking skills children use to make sense of the world. Preschoolers acquire and recall information, link what they already know to new information, reason and solve problems, and sort, classify, remember, and interpret what they learn. This developmental domain is linked to all others as young children apply their thinking skills while exploring materials and their world, engaging in play with peers, suggesting solutions to disagreements, and determining what they need to carry out their plans.

One of the key cognitive skills to emerge in the preschool years is being able to form, retain, and recall mental images (Copple & Bredekamp, 2009). When asked, “Remember when we saw robins on our walk?” a preschooler does remember and can respond by adding details to the memory and relating it to a current situation or setting. “They had red feathers and one was eating a worm.”

Young preschoolers use and enhance their cognitive skills while engaged in make-believe play using familiar items such as dolls, phones, and dishes as props that allow them to act out what they have seen and heard adults do. They typically play with one or two other children rather than a small group.

Older preschoolers form small groups to engage in more sophisticated dramatic play with roles, scenarios, and symbolic use of open-ended materials. This type of play might focus on understanding an experience such as moving to a new home or adjusting to a new baby in the family. Play might also be imaginative as children apply their creativity to invent scenarios. A four-year old might use a piece of cloth as a cape, tablecloth, or tent, or hold a block to her ear and “phone” her dad. At times, older preschoolers continue a dramatic play theme for several days, adding more complex story lines and characters to their original scenario. Observant teachers might see that the children’s play is becoming repetitive and not progressing to higher levels. They might offer new props or dress-up items or take on the role of a character in the play and make comments that suggest new options for the players. “I’m bored. Do you have any toys I can play with while I wait for the doctor?”

Copple and Bredekamp caution teachers to remember another key characteristic of preschoolers’ cognitive development, “they are on the cusp of grasping a variety of concepts, words, and skills at a new level” (Copple & Bredekamp, 2009, p. 130). As a result, preschoolers tend to learn best when they can focus on one concept at a time. For example, a categorizing activity will be most successful when teachers ask preschoolers to focus on one or two attributes of items rather than multiple characteristics.

Cognitive development supports preschoolers in learning math and science concepts and content. They learn by manipulating objects (as when they build a block tower or road), through their senses (as when listening to sounds on a neighborhood walk), from experiments and investigations, from information provided through books and other resources, and from each other, their teachers, parents, and older siblings. Preschoolers can learn to reason and solve problems—social ones such as how to handle a disagreement and problems related to investigations and discoveries. For example, they mix new colors, figure out how to make a block tower stay standing, and predict and compare measurements using standard ("Let's get the yard stick to measure how tall your building is.") and non-standard measuring tools ("I think the sandbox is 24 sneakers long.").

Language and literacy skills are closely linked to cognitive development. Having the vocabulary to describe and discuss concepts and findings supports memory and higher-level thinking skills. This is discussed in the section on language and literacy.

Social and Emotional Development

Social development involves the skills used to build relationships, get along with, and enjoy being with other children and adults. Emotional development refers to children's ability to identify, express, and manage feelings. Because understanding and coping with feelings are closely linked to relationships with others, these two domains are closely related and support each other.

By the time children reach the preschool years, most have developed the social skills they will need to be engaged members of the learning community. Most will have developed strong, reciprocal attachments in infancy with their primary caregivers, typically parents and early childhood educators that resulted in secure feelings. During the toddler years, they built on this sense of trust to explore the world, learned to enjoy playing with other children, and gained some of the social skills that make group life satisfying. Thus, most preschoolers have practiced sharing and taking turns, cooperating, and expressing strong needs and desires in words, not through aggression. It's likely that three-year-olds are still working on these social skills, but they are making progress toward mastering them.

Preschoolers add to their repertoire of social skills through continued opportunities to live, play, and learn with their peers and the guidance of caring adults. They enjoy each other's company, demonstrated each morning as they arrive at the program and look for preferred classmates. They are also learning prosocial behaviors such as experiencing empathy—being aware of someone's feelings, showing concern, and offering a hug or other kind of assistance.

Preschoolers tend to be more able to cope with strong emotions than they were as toddlers. Their language skills have grown so they can recognize and name feelings, a critical step in being able to manage them. They can identify with the feelings of characters in books and understand what might cause the character to have certain feelings. With continued support from their teachers, preschoolers can use various strategies to calm themselves before losing control.

In addition, preschoolers are developing a sense of self—who they are and how they are alike or different from other people in terms of physical characteristics, gender, culture, family structure, and more. They learn what behaviors and physical differences are typical of boys and girls and what boys

and girls have in common. A sense of self is a precursor to gaining self-esteem—feeling positive about one's abilities and accomplishments.

Preschoolers use their sense of self and self-esteem, along with other social and emotional skills, to form friendships with classmates. "Children who have an easier time making friends are likely to be more self-regulated and to have a better understanding of others' thoughts and feelings" (Copple & Bredekamp, 2009, p. 121). Preschoolers may naturally gravitate to children who have the same play interests or those whose skills are different, thus making them effective partners in supporting each other's learning. To be a friend, preschoolers must cooperate, show respect, and consider the feelings of others. Some preschoolers need an adult to coach them in how to form and maintain friendships. A teacher might model social skills while talking with a colleague or sit with a child and narrate what other children are doing. "Kelly and Frank are friends. Kelly helped Frank hang up his painting. Now they are deciding what they want to do next." Children who are particularly shy or who use aggression to communicate their feelings are in greatest need for an adult's assistance. The friendship skills teachers help children develop in preschool are applicable throughout the lifespan.

Language and Literacy

Listening, speaking, writing, and reading are language and literacy skills. The development of these skills is closely related. Oral language, listening and speaking, includes both receptive and expressive forms. Receptive language skills are used to understand verbal and nonverbal communications. Expressive language skills are used to communicate with others through spoken words, sign language, or a device such as a tablet. Most children develop receptive language skills first; they can understand what others communicate to them before being able to speak. For example, a child might follow three-step directions before being able to talk. It is difficult to measure preschoolers' expressive vocabularies, but young preschoolers, three and four-year-olds, understand between 1,000 and 1,500 words. They learn four to six new words a day. By age four preschoolers typically understand 2,500 to 3,000 words and continue gaining new words at the same pace until by age five they have a receptive vocabulary of 5,500 to 6,000 words (Washington, 2017, p. 255). Children's vocabularies grow through being read to, engaging in new experiences, listening to and conversing with adults and older children, and through intentional teaching of new words.

Writing and reading are connected to oral language, and to each other. Many children explore writing before reading. They pass through several stages as they learn to use writing tools, understand the purpose of writing, and eventually, use standard forms of writing to communicate. Early and controlled scribbling are typical of older infants and toddlers. Young preschoolers move from these stages to basic forms. Because they have gained fine motor control and eye-hand coordination they can make and copy lines, simple shapes, and scribbles that go from one side of the page to the other and have loops like in cursive writing.

Older preschoolers combine scribble writing with pictures. They are learning to write the letters in their names, sometimes in the correct order but not always. Print concepts such as words make sense— they can be read—when the letters appear in the same order every time. Over time they master the alphabet, learn the purposes for writing, and begin to write words using the letters that the

sounds they hear when the word is spoken. For example, a preschooler might write "TRK," for "truck" because T-R-K are the sounds she hears in the spoken word.

Children who have strong vocabularies and phonemic awareness skills, have practiced writing, and have listened to many books read to them are likely to love reading and want to learn to read. As preschoolers, they learn the alphabet (recognizing, saying, and writing letters) and may learn to read some familiar words and the names of classmates. Some children identify words in environmental print such as the name of a favorite cereal or a stop sign. Learning to decode and comprehend words, however, typically takes place in kindergarten and the primary grades. Having had numerous opportunities to explore and manipulate print, enjoy stories, build vocabularies, and express ideas in preschool, they will be ready for the reading curriculum. In preschool they learn important book concepts such as books have a cover and may have a contents page, we hold books with the open pages to the right, words are what we read, and the story has a beginning, middle, and end. Teachers observe understanding of print concepts when they see children holding a book, turning the pages, and retelling the story to themselves or to a friend.

Approaches to Learning

The five dimensions of school readiness outlined in the state's Preschool Teaching and Learning Standards (New Jersey Department of Education, 2014, pp. 60-61) include the category of approaches to learning. This dimension is related to social and emotional development and to brain research findings about how children learn. In addition, approaches to learning is linked to development of cognitive, language and literacy, and even physical skills. Preschoolers who can stay focused (for example, using a balance scale to determine how many marbles are needed to equal the weight of a shoe), persist with a task (for example, sorting shells by size and shape), direct their own learning (for example, select art materials to use for a project), cope with change (for example, select another book to look at when the one they want is in use), and use organization skills (for example, make and carry out plans with peers) do better in both literacy and math at the end of the kindergarten school year, at the beginning of their first grade year, and even in later grades (McClelland, Acock, & Morrison, 2006). Thus, learning how each child approaches learning and planning ways to increase these skills is an important goal for preschool teachers. Approaches to learning includes the following standards:

- children demonstrate initiative, engagement, and persistence
- children show creativity and imagination
- children identify and solve problems
- children apply what they have learned to new situations

Young children develop approaches to learning skills through playful learning experiences which strengthen their abilities to pay attention, remember rules, and inhibit impulses to achieve a larger goal (Tomlinson & Hyson, 2012). Beneficial experiences include both child-initiated and teacher-guided play, along with other intentional teaching strategies (Epstein, 2007).

Supportive preschool environments are carefully designed to give diverse learners a variety of ways to gain physical, social, emotional, and cognitive skills. For example, teachers create well-stocked learning centers and follow a schedule with enough time for children to plan and implement their creative ideas. Higher level socio-dramatic play is especially important as it encourages children to build greater language skills than non-players, better social skills, more empathy and imagination, and show greater self-regulation and higher levels of thinking (Miller, 2009). In these developmentally appropriate settings children can play and learn independently, make choices, follow predictable routines, and engage with peers during small group activities. Teachers play a key role in fostering positive approaches to learning. They establish caring and respectful relationships with children and their families and communicate to children that they are valued members of the classroom community and capable of learning. Children who feel valued and capable become engaged and excited about learning. When teachers provide ample time and support, children can fully engage in developmentally appropriate, challenging learning experiences. They master new skills and are motivated to continue learning.

Executive Function

The term executive function refers to a set of mental process that help children manage and accomplish tasks. Included are the abilities to remember, think flexibly, plan, organize, pay attention, and self-regulate. (See the section on self-regulation for a discussion of this skill.) Executive function abilities do not just develop as children mature. Instead, they grow when teachers actively support their development and children have opportunities to use them in various settings and circumstances.

For example, to support children's ability to remember, teachers provide and expect preschoolers to follow simple directions when going on a field trip. They review the directions before the trip and give reminders as needed during the trip. This helps children gain the capacity to use their memories. Preschoolers also play memory-building games such as lotto and use their memory skills to retell stories using puppets and props.

In another example related to flexible thinking, children are making veggie roll-ups for snack. When they run out of lettuce, their teacher asks, "What else can you put in your roll-up that is green and crunchy like lettuce?" The children decide that "cucumbers are an appropriate substitute."

Executive functions allow children to stay focused and control impulses, as when they engage in complex dramatic play. Participation requires them to pay attention to their peers, respond with relevant comments that enhance the play, accept and carry out their assigned role, and follow social rules such as taking turns when talking. In short, to participate in the play, children must control their impulses and regulate their own behavior.

Self-Regulation

Shonkoff and Phillips (2000) define self-regulation as the ability to gain control of bodily functions, manage powerful emotions, and maintain focus and attention. Developing self-regulation begins in infancy as babies gradually learn to self-regulate. For example, when a newborn feels hunger, she cries for help to relieve her physical distress. Over time, when her cries result in having her needs met

consistently and predictability, she can wait a short time, expecting that her loving caregiver will feed her. Self-regulation is a skill that humans continue to build and rely on throughout their lives.

As described by Bodrova and Leong (2008), there are two sides to self-regulation. First, it requires a child (or adult) to stop doing something—that is, inhibit a behavior. And second, it requires the individual to do something—that is, consider the potential outcomes of a behavior and do something more appropriate instead. For example, 4-1/2-year old Marcus might feel frustrated when Amad, age four, accidentally spills some water on him while they are eating lunch together. Instead of lashing out at Amad, which can escalate into a disagreement, Marcus reaches for a paper towel and helps Amad mop up the spill.

Self-regulation includes both emotional and cognitive applications. They are not separate and distinct, however. Thinking affects emotions and emotions affect cognitive development. In fact, some authors group self-regulation skills with executive function (Center on the Developing Child, n.d.).

Although emotional and cognitive self-regulation are related, young children tend to gain emotional regulation skills first. With support from adults and many opportunities to practice, they gradually learn to recognize, name, and manage their strong feelings. They can inhibit actions and remember and follow rules. In short, they gain some level of control over their behaviors. Kinard (2015, p. 49) states that "children learn self-regulation by negotiating with peers' ways to engage in activities of their own choosing. What looks rambunctious actually creates self-discipline." Self-regulated preschoolers can delay gratification, manage impulses, and consider the consequences of their behavior. Having these abilities allows children to find it easier to get along with others, make friends, and enjoy playing and learning in their classroom community.

Cognitive self-regulation is more complex, and it too relies on adult support and relevant experiences. Beginning at around age four, preschoolers learn to plan, for example what center to visit during choice time, and respond appropriately, for example, listening to and focusing on the teacher as he introduces a new finger play (Rice, 2012). The cognitive self-regulation gained in preschool will support children in kindergarten and beyond. Children who are self-regulated can pay attention, stay focused on tasks, express their concerns and ideas in words, and complete assignments independently, seeking help only when they truly need it (Bodrova & Leong, 2005).

Research shows that children affected by risk factors such as poverty tend to have lower self-regulation (Evans & Rosenbaum, 2008). However, self-regulation can be an important compensatory factor for young children at risk (McClelland & Wanless, 2012). Florez (2011) notes that everyday experiences in a preschool classroom, such as teacher modeling and scaffolding, strengthen children's self-regulation.

As described by Florez (2011, pp. 48-52) teacher strategies such as the following foster the development of self-regulation:

- Provide cues that serve as reminders to help children self-regulate: "Marci said she is almost finished with her painting. It will be your turn next."
- Comment in ways that help children replace negative thinking with positive thoughts: "Learning to write with a pencil can be difficult. I can see you are working hard to form the letters in your name."

- Suggest strategies that help children control impulses: “We are passing the talking stick around our circle. Try sitting on your hands until it gets to you, so you won’t feel like grabbing it.”
- Observe and use scaffolding to individualize support for each child: “You two seem to know how to play this game on the computer. If you need help, I’ll be in the block area.”

Importance of Play

As noted in the National Association for the Education of Young Children (NAEYC) Position Statement on Developmentally Appropriate Practice, one of the principles of child development and learning that inform practice is, “Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence” (NAEYC, 2009, p. 14). Although young children can learn in other ways, such as looking at photographs in a book or participating in a discussion, engaging in play, particularly socio-dramatic play, is critically important for development and learning and later academic success. While reading a book about friendship can shed some light on what is involved in being a friend, it is not as powerful and effective as actually forming a friendship with a classmate. Developmentally appropriate preschool classrooms encourage the kinds of play that support children’s learning. Such classrooms are both playful and educational (Hirsh-Pasek & Golinkoff, 2015, p. 1). Marilou Hyson states that “play is not a break from learning but a pathway to learning” (National Association for the Education of Young Children, 2015, p. 96).

By the time children reach the preschool years they have had numerous play experiences. As babies they might have banged a spoon on their high chair tray to listen to the sounds it makes. Toddlers manipulate objects, filling and emptying containers and they begin to mimic familiar experiences such as pretending to feed a doll or go to “work.” Now they are ready for cooperative play, working with other children to plan and achieve a goal. They might build with blocks, decorate an empty carton to make a club house, ride tricycles around a track, or create and act out complex scenarios with props, themes, and assigned roles. This latter kind of play, socio-dramatic play, offers opportunities to use and build social skills, emerging math understandings, language and literacy, and self-regulation (Leong & Bedrova, 2015).

Leong and Bedrova (2015) caution preschool educators, however, to remember that to engage in fully developed socio-dramatic play preschoolers often need adult support. Teachers serve as play mentors, helping children plan and implement the desired play scenarios and learn what behaviors are required to keep the play going. Many children have not had enough opportunities to play before coming to preschool. Teachers can help by reviewing what happens during play and by reminding children of the need to take turns, listen to each other’s requests and ideas, share materials, and negotiate changes in the plan.

In addition to joining in children’s play and making suggestions that children can consider, the teachers’ role is also to provide the time, materials, and space children need for playful learning. They can enhance the block area by adding props related to a recent field trip and paper, pencils, and rulers. After observing children’s growing physical skills, they might add logs and boards to the outdoor area to encourage children to build, climb, and balance. And for children who seem ready for games with rules,

they can provide board games that introduce and support math concepts as well as reinforcing social skills such as taking turns and coping when someone else wins the game.

Play is often viewed as what we do after we work. In most cases, first you work and then you play. Many people work so that they can afford to play (vacations, golf club memberships, electronic games). However, play is the work of young children. It comes naturally to all children, all over the world. Children are born to play. Play is a right. It expands children's creativity. It provides practice of adult roles. Play is motivating. Free play allows children time to investigate, think, socialize, question, and problem solve, without judgment from adults. Play involves risk. "What will happen if I step here?" "What will she do if I tell her no?" "How do these things fit together?" "Why isn't this working the way I want it to?" Play allows children to express themselves as artists, mathematicians, scientists, athletes, readers, writers, caretakers, leaders, and so much more. It builds confidence so that children will feel comfortable as they encounter challenges throughout their lives. Play can be rule-oriented. Sometimes the play itself dictates the rules. Sometimes it is the children who make the rules. Other times the teacher facilitates the play, using games and playful activities in the learning process. Play is prior knowledge expressed actively. Children demonstrate their learning through play. Their teachers must watch and listen carefully to unlock the play's meaning. Through play, children tell the stories of their lives. Play creates happiness and balance in life. Without play, how can you discover who you are? "Who you want to be?" "How things work?" Play allows children to develop into motivated explorers ready to take on the world.

What Preschoolers Learn through Play[1]

Type of Play	What Children Might Do	What Children Learn
Blocks	• Build towers and structures • Include animal, people, vehicles, and traffic signs in their creations • Plan before building • Share ideas with other children • Make signs	• Making choices • Predicting • Problem solving • Understanding cause and effect • Language and literacy • Geometry • Measurement • Engineering
Using manipulatives	• Build with small blocks, bricks, and other construction toys • Play games such as lotto or concentration • Sort items by attributes such as size, color, and	• Making choices • Problem solving • Language and literacy • Concentrating • Paying attention • Persistence

[1] Based in part on Washington, 2017, pp. 227-228.

Type of Play	What Children Might Do	What Children Learn
	shape • Make designs	• Taking turns • Geometry • Measurement • Engineering
Exploring science and nature	• Balance items on a scale. • Look at things through a magnifying glass • Compare/Contrast leaves • Go on a nature walk • Observe the growth of plants under different conditions • Study a worm farm • Use books and other resources to get information • Pour water into different sized containers	• Using the scientific method • Investigating • Discovering • Exploring • Problem-solving • Observing • Experimenting • Volume and quantity
Music and movement	• Dance with scarves • Jump in and out of hula hoops • Walk on a balance beam • Create an obstacle course • Sing songs • Play instruments • Listen to music • Follow a steady beat. • Crawl in and out of boxes • Throw bean bags in a basket	• Patterning • Locomotor skills • Balancing • Throwing • Creative expression • Cultural arts
Dramatic play	• Pretend to do activities seen at home • Build on field trip experiences. • Become characters from a book • Discuss and carry out a scenario with other children • Assume roles • Continue play themes for several days	• How the world works • Language and literacy • Negotiation • Self-regulation • Coping with feelings • Planning • Flexible thinking • Persistence

Contextual Factors

Throughout New Jersey and the rest of the United States, communities are becoming more and more diverse. Children grow up in their own families and communities learning about their own ethnicity, culture, language, and religion while living alongside other families who may have similar or different backgrounds. Preschool teachers also may or may not share the same languages, cultural group, faith, and other characteristics as those of the program's preschoolers and families. As explained by the psychologist, theorist, and co-founder of Head Start, Uri Bronfenbrenner (1917-2005), children grow up in the context of home and family, but also within additional related ecological systems (Bronfenbrenner, 1981). Children's development takes place within a microsystem, including the child's immediate environment-home, family, school, and community. It is the most influential system, but the other systems also impact the child's development. For example, the parents' work environment, the larger neighborhood, and societal views on family structure can all have an impact on development and learning.

It is important for preschool teachers to be committed, skilled, and knowledgeable professionals who keep up with research and other changes in the early childhood field. At the same time, they might add to their knowledge base by learning about the specific characteristics—including strengths and needs—of the children, families, program, and community in which they work.

Getting to Know Children and Families

As noted above, developmentally appropriate practice considers knowledge of child development, individual children, and cultural groups and families. This means that each year preschool teachers need to get to know the children and families enrolled in their classrooms. And, through observation, ongoing assessment, surveys, exchanging information with colleagues and family members, and various other methods, teachers must continue learning about each child's development, learning, interests, and circumstances. This task is not one that is completed just at the start of the year. It is a continuous learning process. Here are examples of the information a teacher might want to know about each child and family. Remember, these are just examples.

Teachers know what information they need to be effective educators.

- Health history. Does the child have any allergies? Has the child's development been typical? If not, what kinds of concerns arose?
- Prior experiences in early childhood programs. For example, did the child attend early childhood programs in the past? If so, in what setting, for how long, and how did the child respond?
- The child's special interests, strengths, needs, disabilities, and other unique characteristics. For example, is the child a dinosaur fanatic, does he excel in fine motor tasks, is he struggling with language, does he love to cook, does he use a hearing aid, is he afraid of dogs, does he take a nap each day?
- Home language. What language(s) does the child understand and use regularly at home and in other settings? What language(s) is the child learning?

- Family structure. Who lives in the household? How are they related to the child and to each other? Who are the primary nurturers in the family?
- Home setting. Where does the family live? For how long have they lived there? Are they new to the area or to the country?
- Child and family activities outside the school and home. For example, does the child attend art classes or Sunday school? Is the family active in the community?
- Family assets. What strengths and interests might the family want to contribute to the classroom?
- Family needs. What might the family need access to—housing, food, medical assistance, and so on?
- Family life. What is a typical day like for the child? Does the family eat meals together? Where and when does the child play and take part in family routines?
- Family goals for their child. What are the family's hopes for their child—in the coming year, in primary school, and beyond?

Getting to Know the Program

It is important for preschool teachers who are new to a program, and those who are already on staff, to know what is unique about their facility, sponsoring agency, and resources.

Here are some of the questions a teacher might ask.

- What is the history of the program? How long has it been operating?
- What is the program's stated goals, policies, procedures, and so on?
- What curriculum does the program implement? Does the program provide teacher training to ensure effective implementation?
- Does the program have guides for teachers and families?
- What school district(s) does the program connect to?
- How many classrooms are in the facility, total and by age group?
- How are resources allocated? How do teachers order needed equipment, furniture, and supplies?
- Do children, families, and teachers have access to technology? What kinds? For example, do classrooms have computers and tablets for the children to use?
- Are families active in the program? Is there a family committee and if so, what do they do?
- Do teachers have access to specialists such as speech therapists and mental health professionals?
- What are the overall characteristics of the families served by the program? Is there demographic information available about family structure, socio-economic status, housing, home languages, cultural groups, religions, and so on?

Getting to Know the Classroom

Typically, the classrooms in a preschool program tend to look quite similar before teachers create a learning environment for the specific children in their class. But every group of children is unique and therefore teachers tailor each classroom to reflect and support the development of children as a group, as individuals, and as members of a cultural group and family.

When considering how to set up their program, teachers consider the following.

- Which learning centers are already set up and where are they situated? What new centers should be created?
- What is included in the available inventory of equipment, toys, and materials? For example, is there a full set of unit blocks and enough books for the group (five to eight per child at three to four different levels of difficulty) (Morrow, 2007, p. 430).
- Where are the windows? Are there coverings—curtains or blinds—and what is the view from the windows?
- Is there access to outdoor space from the classroom, down the hall and out another door, or is the outdoor area in a nearby park?
- Are other spaces in the building available for the children's use? For example, is there a multipurpose room or gym for physical activities?
- What furniture is in the room? Is it the appropriate size for the age group? Are there enough shelves, tables, chairs, and so on or are there too many?
- Where are the bathroom facilities—in the room or in the hall? Are they sized for preschoolers?
- Are there sinks in the room for handwashing, cleaning brushes, cooking activities, and so on?
- Where can children's work—samples and photographs—be displayed?
- Are there individual cubbies for children—in the room or right outside in the hall?
- Is there a dedicated space for teachers' belongings?
- Is there a space where teachers and families exchange information?

Getting to Know the Community

Early childhood programs are usually housed in facilities within the community in which children and families live. The community includes neighborhoods, housing, parks, businesses, stores, libraries, and the people who live there. The community's boundaries are physical and may also be social. A community might be characterized by the attitudes, belief systems, cultural groups, and home languages of the residents. It is important for preschool teachers to get to know the community in which children and families live, especially when they live somewhere else. They can do this on their own, with the help of colleagues, and with information provided by families. In addition to learning more about the lives of children and families, they may identify assets to support the program and the

curriculum. For example, on a neighborhood walk the children frequently commented on the delicious smells coming from the local bakery. The owner invited the children to visit her business and then came to the classroom to bake muffins with the children. When one of the children got a puppy, she told the group about taking the pet to a veterinarian. The teacher contacted a local vet who offered to give the children a behind-the-scenes tour of his office, then provided a parting gift of face masks and other paraphernalia the children used to recreate their visit back in the classroom.

Below are sample questions of the kinds of information teachers find it helpful to know:

- Is the community primarily urban, suburban, rural, or a mix?
- Who lives in the community? What are the overall demographics related to ages, family structure, home languages, refugee or immigrant status, employment, and so on?
- What kinds of housing exist in the community? Do residents live in single-family homes, multi-family dwellings such as apartments and condos, shelters for homeless families?
- What are the residents' cultures and countries of origin?
- What languages do residents speak?
- Is faith an important part of community life?
- Is the community economically diverse or are most families at the same economic level?
- What businesses are in the community? Do they already collaborate with the program?
- Are there nearby grocery stores with access to fresh produce?
- Where do residents work; what kinds of jobs are available?
- Are there nearby parks and recreation facilities? Are they in good repair, with equipment and services for families with young children?
- Where are the libraries? Are any within walking distance to the program? Does the program have a relationship with the children's librarian?
- What other community organizations exist? What services do they provide? Do the program's families participate or benefit from these groups?
- Is there public transportation? If so, what kind and what routes are travelled?
- What is the local government structure? Who represents the residents?

Diverse Learners

Every preschool classroom includes a diverse group of children. Even when all the children seem to come from similar families and backgrounds, the children will have individual capabilities, interests, needs, skill levels, and physical characteristics. No class is completely homogeneous. Teachers' knowledge of the typical development of children ages 3 to 5 will serve as a framework for planning and assessing progress, but every child and every group of preschoolers will be unique. One reason for

this variation in growth, skills, and knowledge is that while development in the different domains follows a typical scope and sequence, every child follows an individual schedule for development as a result of their experiences. In addition, development is uneven. For example, a child might have advanced language skills resulting from her family talking and reading with her since infancy. The same child may still be gaining motor skills, perhaps because she has had few opportunities to play outdoors. Her teachers can encourage her to throw and kick balls and explore the outdoor climber.

In 1983, developmental psychologist and researcher Howard Gardner described various types of intelligence and the notion that children, and adults, may have strengths in one or more types. Since defining the original types of intelligence, Gardner published additional books in which he added more types so there are now nine: linguistic, logical/mathematical, musical/rhythmic, bodily/kinesthetic, spatial, naturalist, intrapersonal, interpersonal, and existential (Gardner, 2011).

Gardener views all types of intelligence as equally important and useful. According to multiple intelligence theory, individuals are smart in all areas of intelligence. Nature and nurture both play a role in determining which areas feature stronger skills and which ones are less prominent. Preschool teachers can support children's use of their strengths, while also leading them to develop interests and competence in other areas. When the preschool classroom has well-organized, and well-stocked learning centers, along with engaging activities and experiences, children naturally have opportunities to explore multiple interests.

Diversity also refers to a child's gender, ways of learning, and prior experiences—positive, supportive ones and those that are sources of stress. In addition, a child might have unique needs resulting from a chronic illness, such as diabetes, or a specific disability such as autism or a hearing impairment. Children with identified special needs must have an Individualized Education Program (IEP), as required by the Individuals with Disabilities Education Act, Part B (IDEA) of 2004, with amendments as of 2015. Children with identified disabilities must be allowed to fully participate in the least restrictive setting, often a child development center. Individual Education Plans (IEPs) and IDEA are discussed in more detail in the next section.

A preschool class could also include one or more children who have specific issues but are not considered to have special needs, as defined by IDEA Part B. For example, a child who has sensory processing issues can be extremely sensitive to sights, sounds, smells, and other sensory input. Teachers can make accommodations to the materials and other program features so a child with sensory processing issues can participate. For example, for a child who is uncomfortable touching finger paint the teacher can put paint in a zip-lock bag. With encouragement, the child can explore and manipulate the contents without actually touching the paint. Or, a child might have had limited experience using her fine motor skills. In this case her teacher can encourage her to engage in activities that provide opportunities to use her small muscles. Such activities include tearing and cutting paper for a collage, using an egg beater to make bubbles at the water table, threading large beads on laces (perhaps to create a pattern), or rolling play dough to make coils or snakes.

Temperament—the way a person approaches and responds to the world—is also an element that teachers consider when getting to know and understand each preschooler.

Researchers have defined three types of equally valuable and acceptable temperaments (Allard & Hunter, n.d.):

- **easy or flexible** temperament tends to be happy, adaptable, and not easily upset
- **active or feisty** temperament tends to be fearful of new situations, get upset easily, and have intense reactions
- **slow-to-warm** temperament tends to be less active and initially uncertain or upset by new people and situations

Although temperament is apparent at birth, teachers and parents can learn to adapt their behaviors. Thus, a child who tends to be adaptable can learn when it is important to stand up for his beliefs. On the other hand, a child who tends to be fearful of new things can learn practical strategies for managing these emotions, so she can benefit from new experiences.

Diversity is also an outcome of children's life experiences in other early childhood settings, at home, and in the community. For some children, attending preschool is their first experience away from home and family. Others have been in care since infancy or started a family or center child development program when toddlers. The quality of their care and therefore the child outcomes are likely to vary from child to child.

Preschool children also vary depending on the characteristics of their families and communities. Some families are new to the community, others have lived there their whole lives. Some arrived from another country as immigrants or as refugees who resettled in the United States due to conflicts in their homeland. In New Jersey more than 22% of the population were born outside the United States (Migration Policy, n.d.). Children may be growing up within a nuclear, single-parent, blended, grandparent-led or transnational family and may live with one or more parents, grandparents, siblings, cousins, and other nurturing caregivers. The family could have one or more parents who are deployed on military assignment away from home. Family members may work on day or evening shifts, which affects how and when the children and parents interact. Diversity also refers to race, culture, religion, and the family's home language. Children may be growing up in a household where the dominant home language is something other than English. See the section on Dual language learners.

Even in apparent homogeneous classrooms, children need to learn about diverse countries, races, cultural groups, family structures, and life experiences (Derman-Sparks & Edwards, 2010).

As defined by the National Association for the Education of Young Children (NAEYC) (Copple & Bredekamp, 2009, p. 13) in their position statement on developmentally appropriate practice, culture refers to the: ". . . customary beliefs and patterns of behavior, both explicit and implicit, that are inculcated by the society—or by a social, religious, or ethnic group within the society—in its members." Everyone grows up within a culture—whether it is the dominant culture in a country or that of a minority group--and is therefore affected by the cultural "rules" that describe the group's core beliefs and influence the ways we eat, sleep, talk, pray, and behave. Culture also affects child-rearing beliefs, parental goals for their children, and behavioral expectations. There may be differences between cultural beliefs about children's behavior and approach to learning than those implemented in an early childhood setting. It is imperative for teachers to learn about the cultures of the children in their

classrooms. They need to go beyond surface characteristics of the culture such as what people wear and eat, to fully understand the underlying beliefs and values that are important within the culture. A common example used to explain why this is critical is to consider how a culture views children's dependence versus independence. Most preschools in the United States intentionally encourage children to learn to do things for themselves. This may be in contrast with what a cultural group believes—that adults should continue to assist preschoolers with daily tasks. Encouraging dependence can be a way to express love and appreciation.

Preschool teachers can include all children by ensuring all their cultural groups are accepted, appreciated, and considered as assets that enhance the curriculum. Strategies for accomplishing this goal include the following:

- **Reflect the culture in the classroom environment.** For example, the setting should include culturally representative visuals, music, instruments, books, print, artifacts, dramatic play props, recipes, and photographs of the children and their families. Provide signs and other labels in the children's home languages and in English.
- **Incorporate cultures in activities and experiences.** For example, introduce an activity such as weaving by discussing the various cultures in which it is important and why. Provide materials and looms that children can use to create weavings in the style of those found in different cultures.
- **Consider cultural norms when talking with children.** For example, in some cultures it is considered disrespectful for children to look adults in the eye and in some, adults typically give children direct instructions such as "Line up now," versus "Children, can you please line up now."
- **Learn from and include families.** For example, get to know families during home visits—with their permission—before a child enters the program or early in the school year, establish reciprocal relationships that honor their contributions, find out what forms of communication they find most useful, ask them about their goals for their child, and discuss and remain open to their input if they believe classroom practices are not culturally appropriate.

The role of an effective preschool teacher is to create an environment and implement a curriculum that allows all the children in the group to thrive and make progress. Teachers do this by individualizing their program. They get to know each child and keep track of each child's participation and progress. They tailor interactions, maintain appropriate expectations, offer open-ended materials and activities that will offer challenges but not frustration, and scaffold learning by providing just enough support until the child no longer needs assistance.

Certain types of diversity require greater individualization. Children who are learning more than one language, known as dual language learners, and children who have been identified with special needs require targeted instruction focused on planning and implementation of specific strategies, and close monitoring of a child's participation and progress. Nevertheless, much of the program planned for all children will also be appropriate for dual language learners and children with special needs. Small adaptions to learning centers, activities, materials, displays, and so on can make it possible for all children to join in. For example, a child with multiple sclerosis might have difficulty grasping paint brushes and markers. The teacher can wrap foam around these tools to make it easier for the child to

hold them and take part in art activities. For children learning two languages, teachers can label centers and shelving in English and home languages and learn a few important words and phrases in children's home languages to make it easier for them to understand directions and other interactions.

Children Who Are Dual Language Learners (DLLs)

As defined by the US Department of Education (2017), DLLs are children who "are learning two or more languages at the same time, as well as those learning a second language while continuing to develop their first language" (p. 1). Some New Jersey school districts are in communities in which residents speak more than 30 languages. As reported by the US Census Bureau, by the 2030s children whose home language is other than English will represent 40% of the school-age population (Magruder, S. et al., 2015). In New Jersey, based on data analyzed from the Migration Policy Institute, an average of 58.3% of preschoolers enrolled in Pre-K in 2011-15 were DLL (Park, O'Toole, & Katsiaficas, 2017). This means that is highly likely that preschool teachers will have children who are DLLs in their classrooms.

Researcher Patton Tabors (2008) described a developmental sequence that children follow when acquiring a second language.

- **Ongoing use of the home language.** Often, children continue to speak their home language with peers, family members, and others who also speak that language and may use their home language with others who don't speak it, because they do not yet understand that a new and different language is used in the early childhood setting.
- **Nonverbal period in the new language.** When children realize that other people do not understand their home-language they give up using it with them. They use nonverbal communication such as crying, pointing, and mimicking the behavior of others. During this nonverbal period children gather information about the new language. They watch and listen to others and talk to themselves.
- **Telegraphic and formulaic language.** Telegraphic language often consists of a single word. To say, "I want more milk," a child might just say "Milk." Formulaic language includes typical phrases used in social situations. For example, when leaving a group at play a child might say, "Bye-bye." Using these memorized forms of language helps children get involved in classroom play and activities.
- **Productive use of the new language.** A child uses the new language to express an experience, idea, object, or need. For example, he might say, "I need a red," or "I do swing." They make quite a few errors, so it may seem that their language skills have decreased. What they are doing, however, is figuring out how English works (Tabors, 2008).

As DLLs pass through these stages, they discontinue use of their home language with people who do not understand it. However, they continue use of strategies used in earlier stages as they make progress in learning the new language. For example, a child might wave while saying "Good-bye." Preschool teachers need to keep this in mind when considering a child's progress. In addition, it is important to note that most young DLLs have language skills in their home language that they can apply to learning English and to learning in other domains.

Language is learned in social contexts and through relationships. Preschool teachers can begin to establish relationships with DLLs and their families by learning to pronounce their names correctly, learning a few key phrases and how to say alphabet letters and numerals in the home language. Children are likely to feel secure and ready to learn when they know their teacher can help them find the bathroom or follow the daily schedule. It's helpful for all children, but especially DLLs to have a picture version of the schedule and any other instructional signs. Teachers can label materials and shelving with pictures or photographs and text in the home languages and in English, thereby making it easier for DLLs to find what they want to play with and return it when done.

An early childhood setting in which children who speak multiple languages play and learn together, should include books and other texts in all relevant languages. A listening station can include recordings of books and songs in different languages. In addition, preschool teachers can foster second language acquisition by supporting children's play and joint activities. Including linguistically and culturally appropriate props and dress-up clothing is one way to do this. In addition, teachers can pair a child who is learning English with a child whose oral- language skills are proficient. Together they can do a task, such as carrying a basket of balls outdoors, or engage in an activity, such as playing a game of lotto.

Epstein (2014) suggests the following strategies for supporting DLLs in preschool settings:

- **Encourage communication.** Support all language use, whether in English or the home language. View switching back and forth between languages as a sign the child is learning to adapt to different play partners and situations.
- **Incorporate children's home languages and English.** Sing songs, learn finger plays, read books, and tell stories in multiple languages. Invite families to share songs and stories in person or by suggesting them to teachers. Ask a child to tell a story about a familiar experience. "Tell me what you did after dinner last night."
- **Encourage pretend play.** Children can use their language skills during play and supplement their oral communications with gestures using the props that are part of their play. "Pretend play also allows dual language learners to pick up the rhythms and intonations of English dialogue (Epstein, 2014, p. 108).
- **Use English and home languages for different purposes.** For example, a teacher might announce transitions in English and use the home language at family style mealtimes (Nemeth, 2012, cited by Epstein, 2014).

Children with Special Needs and Disabilities

Young children as learners include children with special needs and disabilities. Early childhood teachers set up the environment in their classrooms based on developmentally appropriate practices. Early childhood classrooms based on sound practices provide the learning environment to support diverse learning styles.

Preschool teachers will be asked to support a child's individual needs due to a health condition, a disability or a developmental concern. Always involve more than one adult when working with children who are at risk for developmental delays. Teaming and collaboration with the child's family and practitioners from various disciplines is crucial when teaching children with special needs. Ask questions of your supervisor, if you note you have a child with a health plan, a 504 plan or an IEP.

The child's family and the preschool teacher play an integral role in the special education process from identification to the development of an IEP. The preschool teacher is a participant in each meeting in the special education process.

In addition, there may be preschool children in your classroom with an IEP who received early intervention services under IDEA, Part C. prior to age three. The teacher will need to review the IEP and understand their role and responsibilities with the preschool child's case manager. For children who have just turned three, the teacher, as part of the IEP team will review the child's Individualized Family Service Plan (IFSP). IFSPs are developed for children under age three by the early intervention system.

Preschool teachers individualize, support and accommodate children who have already been identified with an individual need that affects their educational progress. Promoting participation and support to a child with a disability in a preschool classroom is a function of a child's IEP. The role of the IEP team is to develop individualized goals to support the child during the routines of the preschool day. The IEP team process addresses access issues in the classroom so the child can participate in the preschool curriculum and develop individualized goals for the child based on needed scaffolding, adaptations and opportunity to practice and level of support.

Preschool teams meet regularly to review the child's progress towards meeting goals set out in the IEP, and to make changes needed to continue supporting learning. IEPs include specific goals and benchmarks for monitoring progress, strategies related to goal achievement, and written agreements related to provision of additional support such as through a speech pathologist or a mental health specialist. Depending on the child's disability, an IEP might include strategies designed to support the child's involvement in play, interactions with children and adults, use of social behaviors, and skill development. Such strategies are designed to be used by teachers in the early childhood setting and reinforced by the family at home.

New Jersey describes the special education process in an online guide, Special Education Process: From Child-Find, Referral, Evaluation, and Eligibility to IEP Development, Annual Review and Reevaluation. The guide describes each step in the process and applicable time frames for each step.

Preschool teachers may support children who have already been identified with specific disabilities that affect their educational progress. They are also positioned to complete screenings and observations that might indicate a child shows signs of a potential disabling condition that would make him or her eligible for services under IDEA, Part B. The next step is for them to share their observations with the child's family. Frequently, this leads to a full evaluation that may or may not result in identification of an eligible disability.

In addition, there may be children in the group who are already receiving services under IDEA. For children over age 3, the teacher will need to review the existing IEP and determine the best course of action for the future. For children who have just turned three, the teacher will need to review the child's IFSP.

Summary

Effective preschool teachers must know and understand how young children develop and learn, and apply that knowledge to their everyday actions, reactions, plans, and reflections. Effective Preschool Teachers respect young children as learners by using the principles of developmentally appropriate practice, incorporating how preschoolers develop in different domains and the interrelatedness of these domains, and valuing the central role of play in young children's learning. Finally, effective preschool teachers are attuned to the multiple influences on young children by recognizing the importance of viewing family, culture, language, abilities as well as diverse abilities, and community as assets and contributors to and supporters of children's development and learning.

Section 2: Planning to Support Children's Learning

The partnership of both indoor and outdoor physical arrangements are two key components towards the creation of an environment supportive for learning. Preschool environments provide a foundation for young children to thrive. Environments reflect who we are as teachers and as a class. They need to be safe, healthy, respectful, engaging, and appropriately stimulating and challenging for each student. A classroom aligned with Developmentally Appropriate Practice will not only reflect the overall classroom culture, but it will also reflect on the children as individual learners while showing respect towards their families and cultures. Walking into a preschool classroom should be a warm and overall welcoming homelike feel, building a sense of community and security. This can be accomplished by making the classroom child centered creating a sense of softness in color, furnishings, lighting, and materials with ease of access to varied resources and interesting possibilities.

This section discusses the creation of classroom learning environments that invite participation, are inclusive of diversity, support equity, and build on children's interests and prior experience. This section also reviews positive approaches for classroom management and explores strategies for building classroom community.

Classroom Environment and Room Arrangement

Isbell and Exelby (2001) state, "Each age has unique characteristics that correspond to a particular stage of development, which varies by individual. How children interact with the environment and each other will influence room arrangement, available materials and what happens within the space." (p. 14) Room arrangements need to be well planned, organized, and be developmentally appropriate to meet all children's needs. The physical arrangement of the room needs to create a child friendly flow with clear traffic patterns that neither interfere with children's play nor promote any type of running or dangerous behaviors in the room.

A preschool classroom should be clean and free of clutter. Materials are of student interest, age appropriate and ready for hands-on learning. Materials and consumables in the room are for the children and should be stored in labeled child friendly containers (in English, and individual children's home language). Materials and consumables need to be accessible and available for children to use freely and independently. Curtis and Carter (2003) support the use of open-ended materials and loose parts as they "allow children to be creators rather than consumers of their learning." (p. 156)

The furniture should be child-sized which will help the children feel more comfortable as they sit in chairs that allow their feet to touch the floor with tables lowered to about elbow height with their knees able to fit comfortably under the table. Classroom furniture should be clean with no sharp edges. All furniture in the classroom should be convenient for easy care and easy accessibility. The classroom should be furnished with both hard and soft furnishings. Young children need soft cozy spaces to escape the hardness of typical classrooms. Rooms should be ample enough in space to permit children and staff to move freely with enough space for mealtimes, group times, and space for interest centers and play areas. When placing furniture in the classroom, teachers, should also keep in mind where electric outlets (covered with a child safety plug) and computers cables are located.

Interest Centers and Play Areas

In setting up the preschool classroom, learning centers are designated for specific types of exploration and activities. Organization is key for children to explore what is available and where things are located to allow for easy access and cleanup. The environment sets the stage for the learning opportunities that can occur.

Effective learning centers are well defined and provide space for comfort and function. Centers need to be divided by noise level and purpose. Louder and quieter centers should be separate from one another. For example, the block area should be as far away from the library as possible. The Art, Sand and Water areas are best when placed close to the sink for quick clean up, for hand washing and proper hygiene. Materials are located with space to use them.

The Early Childhood Environment Rating Scale-Third Edition (ECERS-3), (Harms, Clifford, & Cryer, 2015) makes a distinction between *Play Areas* and *Interest Centers*. While all learning centers in a preschool classroom are *Play Areas* not all *Play Areas* are *Interest Centers*. An *Interest Center* is a clearly defined space with appropriate storage and materials designed to support play. For example, a Block Interest Center is designed for children to build. ECERS-3 also notes:

- **Materials are organized by type** and stored so that they are accessible to children.
- **Furniture is provided** for the use of materials, if needed. For example, a Dramatic Play Interest Center has appropriate homelike furniture (e.g. stove, sink, refrigerator, small table and chairs for dramatic play); easel and table for art.
- **An appropriate amount of space is provided** for the type of play being encouraged by materials and the number of children allowed to play in the center. Blocks and dramatic play interest centers are usually larger than other interest centers.

- **All materials in an Interest Center should relate to the particular type of play** for that Interest Center. For example, if musical instruments or a doll house is located in the block area, then this would interfere with building and limit the building that children could do.
- **A minimum of five Interest Centers** are required for a score of "Good" (5) in ECERS-3 Item 3. *Room Arrangement* including a Cozy Area. The other Interest Centers can include blocks, dramatic play, fine motor, art, computer, science/nature, library, literacy center, math, etc. If the library is the cozy area, then the room needs to still have four more Interest Centers.
- **A Cozy Area is a clearly defined space with a substantial amount of softness** where children may relax, read, or play quietly and that is protected from active play. One small soft pillow does not create a cozy area. Jumping up and down on pillows make the space set-up for active boisterous play.
- **The following ECERS-3 items** are required to meet the definition of a defined interest center for a score of "Good" (5)**:** 15- Reading Center/Library; 20- Blocks; 21-Dramatic play; and 22-Nature/science.

Functions of Each Learning Center

Each learning center serves an important purpose in the preschool environment. While all centers have primary roles, as domains are not silos, language and literacy, social-emotional, math and science, and physical development skills and concepts are also supported and integrated in all centers.

Blocks: Encourages and supports construction, sharing, problem solving. Children can also improve large and small motor skills. The Block area promotes children to create and discuss structures and communities. The block learning center also teaches children about basic engineering, cause and effect, vocabulary, and mathematics.

Library and Literacy: Encourages and promotes literacy development. The Library and Literacy areas are quiet places for children to go develop their reading, writing, listening and comprehension skills. These areas will help promote Language Arts Literacy and encourage children to learn about interests while developing an enthusiasm for reading and for writing.

Dramatic Play: Encourages and enhances social-emotional and language development, self-regulation, and creativity. The Dramatic Play area is a place where children can express themselves, practice diversity, and develop language through role play and with peers. Dramatic play helps children to make sense of their world as they act out both real and imaginative roles.

Art: Encourages creative expression by using a variety of materials. The Art area also encourages fine motor skills and eye-hand coordination and provides many opportunities for using descriptive vocabulary. Art is designing, defining, exploring and creating. Art areas support the process of doing and exploring the tools of art.

Manipulatives/Table Toys: Encourages problem-solving, literacy concepts, engineering, children's fine motor skills, and beginning math concepts. This area also supports sharing and taking turns as well as building confidence, imagination, and vocabulary. Cognitive concepts are also explored.

Sand and Water: Encourages children to participate in sensory play through problem solving and experimenting. Children gain experiences in measurement, textures, conservation of volume and physical science and engineering. The sensory experience of these tables also can help to soothe a child who is distressed.

Nature/Science: Provides children with opportunities to promote and practice scientific investigation skills such as observation, experimentation, hypothesizing, data collection, and developing a conclusion. Concepts in matter and energy, living things, the Earth, and technology are developed as well as expanded vocabulary.

Technology: Encourages children to investigate subjects and interests. Integrating technology ensures that children are becoming digitally literate. Children learn how to navigate a screen, use devices, communicate electronically, use basic technology vocabulary, and seek information. This may be a center with computers, or tools (tablets, cameras, etc.)

Music: Encourages children to experiment with sound and music while promoting creativity, imagination, and self-expression. Beat, rhythm, rhyme, and movement concepts are developed.

Materials Needed in Areas for Learning Centers

Materials should support the primary focus of the area and support the varied stages and abilities of preschoolers. All learning centers, however, should be infused with appropriate materials to support literacy to enhance the functions of each area, not to detract. These would include paper appropriate to the center (e.g. post-it notes in dramatic play; small file cards to make signage in Blocks area; journals to document results in science) and center relevant writing/drawing instruments and tools. Materials that are open-ended allow for multiple ways to use and support higher-level thinking and creativity.

We used ECERS-3 (Harms, Clifford, & Cryer, 2015) as a foundation for suggesting materials in all areas. Areas marked with a * are required to be well-defined *Interest Centers* in ECERS-3.

***Blocks:** Unit and large hollow blocks with accessories such as small people, vehicles, signs, and/ or animals. Unit blocks, most often wooden, are those designed to be in mathematical proportion to one enough. You may also include large plastic or cardboard blocks as well as loose parts such as cones, ramps, heavier cardboard tubing, corrugated cardboard and other interesting building additions. There should be enough blocks, space, and accessories for three children to build sizable independent structures (Harms, Clifford, & Cryer, 2015).

***Library:** A variety of developmentally appropriate fiction and nonfiction books organized on a book shelf with covers displayed at the child's eye level. Books may include a variety of genres as well as topics of interest to young children. "Inappropriate books may contain topics and illustrations that are

frightening, show violence, or give negative social images, such as a biased point of view or using aggression to solve problems" (Harms, Clifford, & Cryer, 2015, p. 42). Therefore, most fairy tales are considered inappropriate for preschoolers. ECERS-3 recommends at least 30 books for every 15 children in the class. Comfortable furnishings such as a rug, pillows, or child-sized couch should be included.

Literacy/Writing: A variety of pencils, pens, and markers, paper in assorted sizes, shapes, weights, lined and unlined, and other writing materials and supports. Scissors, staplers, hole punchers, stickers, letters, name cards, picture-word cards, stamps with ink pads, stencils, card stock, and envelopes add interest and engage children in this area.

***Dramatic Play:** An abundance of materials and furnishings to act out family roles including dress-up clothes for boys and girls as well as gender-neutral clothing and accessories, dolls, food, and housekeeping props. Materials should provide at least four clear examples of diversity (e.g. race, culture, disability). Additional props for different kinds of jobs and materials for fantasy (non-violent) and leisure play provide children with options for variety in role play.

Art: A variety of drawing materials such as crayons and markers, paper, paints and brushes, easel, clay, collage materials, chalk, tools (such as scissors, tape, and hole punches), and interesting three-dimensional objects and loose parts. All materials should be safe and non-toxic and organized with accessible containers or bins. A convenient table and chairs and smocks should be available.

Manipulatives/Table Toys: At least three kinds of fine motor objects which include interlocking building materials, such as table blocks, bristle blocks, links and Unifix Cubes, a variety of puzzles (knobbed, un-knobbed, framed, unframed, and floor), and manipulatives such as stringing beads, pegs and peg boards. Materials to support math concepts, such as parquetry blocks, tangrams, counters, numbers, games, and matching, sorting and seriation and patterning materials and games, are often included in this area. Table and chairs and adequate organized storage with labeled containers as well as floor space for material use should be provided.

Sand/Water: Age appropriate toys, smocks, measuring cups, funnels, sponges, small containers, and shovels for digging and pouring. Although these are two distinct activities, we recommend having both accessible when space allows. While changes can be made to sand or water table (e.g. adding food coloring, ice or snow, bubbles or liquid soap), the sensory material should be diggable or pourable. To prevent rodents, insects, bacteria and mold as well as to be respectful of cultures and values, food (e.g. rice, grains, flour, pasta, seeds) should never be substituted for sand or water.

***Nature/Science:** At least 15 materials with some from each of the four categories: living things (non-toxic houseplants, terrarium, pets, ant farm), natural objects (pinecones, shells, leaves, rocks, nests), at least five factual books and games about nature and science, and tools (e.g. magnifying glasses, magnets, eye droppers, color wands, prisms, reflectors, tweezers, tongs, etc. with complimentary materials) (Harms, Clifford, & Cryer, 2015). Materials that engage the senses, and encourage curiosity, exploring, investigating, and figuring out are most appropriate. Loose parts and take a-parts (e.g. old telephones, radios, cameras, clocks) attract interest and appeal to children's sense of wonder (Curtis & Carter, 2015; Dodge, Colker, & Bickart, 2010; Daly & Beloglovsky, 2014).

Computers: Computers, iPads, tablets and headphones with needed supports (e.g. mouse, mouse pad, speakers, etc.) and developmentally appropriate software, media and/or websites. All materials should be working and include appropriate content that is neither violent nor culturally insensitive. ECERS-3 notes that TV/video should be limited to 10 minutes with alternative activities accessible and other electronic media (e.g. computers, tablets, handheld devices, Smart Boards) be limited to 15 minutes per child. Timers or other strategies are recommended to limit screen time.

Music: A variety of musical instruments and music for children to enjoy. At least 10 instruments in good condition should be accessible for children to use freely. This may include bells, rhythm sticks, clappers, drums, maracas, shakers, ankle bells, cymbals, triangles, tambourines, instruments from other cultures, and instruments children make. CD players with head phones and CDs of varied music may also be added.

***Cozy Area:** An area for privacy or relaxing with a friend with an abundance of soft furnishings such as pillows, comforters, soft chairs/couch, and stuffed animals. When the cozy area is within the library area with appropriate substantial softness, an addition area from those above should meet the definition of a well-defined interest center. However, there should be an area set-up for privacy for children to play alone or with a friend that discourages interruption from others (Harms, Clifford, & Cryer, 2015).

A Word about Displays

Classroom walls should display children's work and be reflective of their interests and experiences. When teachers invite the children to discuss their work and note it on the displays, children take pride in their creations and know this is a place for them. Displays should be changed regularly and should not be filled with store bought posters or teacher created decorations. Encourage children to bring in pictures of themselves and their family members and family artifacts and objects. Include pictures of staff members and their families as well a few things special to you. Displays should have purpose and meaning and mainly be at the child's eye level. Preschool teachers should regularly refer to displays as appropriate in their everyday interactions with a child or group of children.

Health and Safety

Health and safety in a preschool classroom will help teach the children to demonstrate appropriate hygiene practices and increase children's development of self-help skills. They will also develop the skills needed to become aware of any potential hazards to themselves or to others in their immediate surroundings.

Health

Contamination is common but preventable in a preschool program. Health practices are to be used daily. Practices such as proper hand washing and disinfecting are to be done daily and numerous times throughout the day.

Practices include cleaning and sanitizing with proper program approved cleaning supplies (such as bleach or EPA registered disinfectant) are not to be in reach of the children at any time. Disinfecting tables, sinks, toilets and used areas are to be completed when the children are not in that area, or the children are in a transition period. Beds and sheets used during nap time are to be stored so that they do not touch each other. Make sure that cots/mats are at least 36 inches apart from each other and the children are alternated head to foot so that they will not spread germs to each other.

Links to properly cleaning and disinfecting tables in the classroom:

NJDOE Table Washing Guidance
ECERS-3 Table Washing Guidance

Handwashing must be encouraged and completed independently by the children. Children can learn proper hand-washing procedures, through the use of pictures and songs (singing a song while washing). Children must wash their hands whenever entering the classroom, after toileting, before and after eating all meals and snacks, before and after use of wet materials such as finger paint, water or clay, after play with shared sensory materials, such as sand, or after messy play, after dealing with bodily fluids, and after touching pets or contaminated objects and surfaces such as trash can lids (Harms, Clifford, & Cryer, 2015).

Links to correct hand washing procedures:

NJDOE Handwashing Guidance
ECERS-3 Handwashing & Diapering Guidance

Safety

Preschool children move quickly, are naturally curious, and may act without thinking or out of inquisitiveness. Always be safety conscious. The environment, both inside and outside the classroom, should be regularly checked to make sure that no major safety hazards are present. Anticipate accidents before they happen. Adult supervision is always required, with the children. Children need to be encouraged to play and experiment, but it must stay age appropriate and within safe boundaries. For example, make sure that the children are wearing eye goggles when woodworking. Supervision can be adjusted based on risks or individual needs of children. For example, increased supervision might be given to a child who might put himself in danger or increased supervision of equipment that might cause harm to a child such as the monkey bars. Poisons and anything labeled “keep out of reach” for children, should be locked if possible, or stored high and out of reach. Outlets should be child-proof and electrical cords and wires should be not left dangling. While no environment can be 100% safe all the time, adults need to always be safety vigilant.

Gross Motor Space and Equipment

Children learn by exploring their environment through movement. Preschool teachers are expected to incorporate and implement gross motor activities, daily. Gross motor activities should occur on a safe and appropriate playground for at least 30 minutes daily weather permitting. ECERS-3 (Harms, Clifford, & Cryer, 2015) defines weather permitting as meaning “*almost every day,* unless there is active precipitation, public warnings of extremely hot or cold conditions, or public announcements that

advise people to remain indoors due to high levels of pollution." (p. 12) In New Jersey, this means children should go outside most every day.

Materials and equipment whether inside or out should be varied, age appropriate, and support the development of seven to ten different skills. Each skill utilizes different types of equipment. Stationary equipment (such as slides and swings) and grounds are to be safe and hazard free. Examples of the skills taught during gross motor time are pushing and pulling, swinging, kicking, jumping, throwing, catching, climbing, balancing, pedaling, and sliding. Teachers must have the proper age appropriate equipment that will match the skill for which it is intended. For example, if the skill is catching and throwing, then the teacher must have balls out for the children to use. When using tricycles for pedaling make sure helmets are used for any wheel toy. Gross motor materials and equipment should be accessible to encourage student learning at any level from the beginning to the more advanced age appropriate level skill.

When weather does not permit, gross motor development can be supported using an indoor space such as an indoor gym or common area, or if necessary, the classroom by moving furniture to create enough space for vigorous movement without crowding, such as dance or exercise. Materials to support varied gross motor skills should be accessible when indoor space is used. Bowling, ball toss, balance line, rocking boat steps, over and under obstacle challenges, hula hoops, and tumbling mats are examples of portable stations that can be used indoors along with space and music for dancing, marching, and workouts. Using stations, each with a different skill or focus, is one way to manage indoor gross motor.

Schedules

Young children need a predictable, consistent daily routine that balances active and less active times and balances teacher-guided time and time for child-initiated play both inside and out. Time for meals, rest, and toileting are also incorporated. The schedule should include at least an hour each morning of free choice center time as well as at least 45 minutes of gross motor activity daily in a six-hour program. Whole and small group times are limited to 10-15 minutes and never more than 20 minutes (older children) to maintain children's interest and engagement, as well as to ensure ample time for center play and choice. Thus, just because children *can* sit for longer periods of time, doesn't mean they *should.* Recognizing that children are active learners who learn through their play is key in establishing the schedule. Free play supports integrated learning in all domains, allowing more individualized scaffolding as staff intentionally interact following children's choices, interests, and leads.

Two sample schedules for a full-day program:

Schedule A

Minutes	Time	Daily Routine
45	8:25-9:10 a.m.	Arrival, Sign-in, Outside Time, Handwashing
20	9:10-9:30 a.m.	Breakfast Time
10	9:30-9:40 a.m.	Greeting Time/Morning Meeting
10	9:40-9:50 a.m.	Planning Time
70	9:50-11:00 a.m.	Center Time

Minutes	Time	Daily Routine
15	11:00-11:15 a.m.	Small Group Time (Literacy/Stories)
10	11:15-11:25 a.m.	Toileting & Handwashing
30	11:25-11:55 a.m.	Lunch Time
60	11:55 a.m.-12:55 p.m.	Nap Time
10	12:55-1:05 p.m.	Group Time (Music & Movement)
70	1:05-2:15 p.m.	Center Time
35	2:15-2:50 p.m.	Outside Time & Handwashing
15	2:50-3:05 p.m.	Small Group Time (Math/Science)
0	3:05 p.m.	Dismissal

Schedule B

Minutes	Time	Daily Routine
10	8:25-8:35 a.m.	Arrival Time, Handwashing, Sign-in
20	8:35-8:55 a.m.	Breakfast Time
15	8:55-9:10 a.m.	Small Group Time (Literacy/Stories)
65	9:10-10:15 a.m.	Outside Time, Handwashing
10	10:15-10:25 a.m.	Greeting Time/Morning Meeting
10	10:25-10:35 a.m.	Planning Time
75	10:35-11:50 a.m.	Center Time
10	11:50 a.m.-12:00 p.m.	Toileting & Handwashing
30	12:00-12:30 p.m.	Lunch Time
60	12:30-1:30 p.m.	Nap Time
65	1:30-2:35 p.m.	Center Time
15	2:35-2:50 p.m.	Small Group Time (Math/Science)
15	2:50-3:05 p.m.	Group Time (Music & Movement)
0	3:05 p.m.	Dismissal Time

Routines and Transitions

An effective and supportive learning environment needs established routines. Routines represent the steps done to complete the daily schedule. Children thrive on routine. A well-managed classroom has structured routines and transitions in place from the beginning of the year continuing to the last day of school. Consistency is an important factor in classroom management. Research indicates that implementing rules and routines in a classroom has an enormous effect on classroom behavior (Marzano, Marzano, & Pickering, 2009, p. 21). In a preschool classroom, every minute of the day needs to be accounted for. Daily routines and predictive timelines help children feel safe and supported. Children need to know what will happen next and can plan if needed. Routines need to begin on the first day of the program. Routines can be established by creating child friendly schedules and displaying anchor charts to remind children what to do.

Transitions are a key component to help establish clear routines. If a transition is unorganized or unplanned, a chaotic classroom may come about. An easy way to help transitions become smooth and

predictive for children is to use a timer. Inform the children how long they will be in a center time. When the activity has five minutes left a child or a teacher should go around the room giving the children a "five-minute warning." This will help the children begin to physically, socially, and emotionally prepare for the next routine. When the time is up, it would be beneficial for teachers to have a bell (or soft noise maker) and announce that the transition has begun. A song can be sung to help the children conduct a smooth transition. Transitions should not be longer the three minutes. Transitions can be individualized or completed as a group. For example, the teacher can call some children to wash hands prior to lunch, while some children are still cleaning up.

Routines and transitions also provide opportunities for learning. Too much time is wasted in preschool classrooms as children wait with nothing to do. Routines and transitions can be used as intentional teaching moments to teach children about health and safety, and time, as well as increasing vocabulary, early literacy, and math skills. For example, teachers can transition from story time to outside by asking those whose names begin with the /b/ sound to put on their coats or using handwashing routines to discuss what to do first, second, third.

Before Care After Care

A six-and-a-half-hour day is a long day when you are in preschool, especially for children. As children arrive for Before Care programs, they should wash hands upon entry to prevent the spread of germs and build healthy habits. Some programs offer breakfast or snack for early drop offs. Children should be encouraged to play and explore with materials of their choice. Sand/water center should be open to provide a soothing adjustment to the day. This is also a nice time for smaller group stories.

However, not all children arrive at preschool needing a little time to wake up or adjust to the day. Some come in ready to play! If before-care time is 40 minutes or more, all centers should be open. When you limit centers at this time to quiet, easy-to-clean centers, it means children will often avoid those centers during center time, causing more active centers to be in high demand during center time and potential classroom management issues. Children think, "I could only choose books or table toys or writing center when I got dropped off, so I won't choose those centers during center time." It's also important to remember that children learn most effectively through engagement with the peers and materials when they have choice. They also benefit from interested adults who observe, facilitate and extend children's play, and who look for teachable moments to individualize their interactions based on a child's interests and actions.

After Care programs provide for the extension of the day. Snacks should be provided to support the growing nutritional needs of preschoolers. After Care offers opportunities for additional indoor or outdoor gross motor play as well as for additional center time, again with all centers open if after-care time is 40 minutes or more. Not all children have the same internal clocks. Some choose to be less active as the day wears on them more and some choose to go to blocks or another area or to be alone at the computer. While others want to relax in a soft space with an adult who reads them a story. Effective teachers continue to look for moments to engage in conversation and know when to step-back to observe.

Building Classroom Community

A teacher needs to promote and maintain the classroom as a caring and warm community (Howell & Reinhard, 2015). This is done by creating a positive learning environment. Preschool children need to feel safe and comfortable within their classroom. The teacher needs to plan and organize a classroom that will develop children's self-confidence and positive feelings towards the learning environment and their classmates. Allow children to use materials and provide them with opportunities that are meaningful and of interest to not only an individual child but also to the entire group. By creating and establishing positive teacher-child, and child-child relationships in the classroom, the community will begin to establish classroom friendships, and trusting relationships. This will help develop the classroom from a place that the child must be, to a place that the child wants to be.

In this vignette, consider one way that Ms. Brooke supports community.

Ms. Brooke has been concerned about the way some of the books seem to be getting ripped or tossed into the shelf. She decides to address this at a class meeting and discusses with the children the importance of taking care of the classroom library. The children are very interested in the library, but one child, David, seems afraid to touch the books. Ms. Brooke invites the children to share ways to ensure books don't get hurt and encourages David to pick out any book that he wants so that she can read it to the class. David picks out a book, and accidentally rips it while taking it off the shelf. Ms. Brooke calmly walks over to David and tells him that it is fine, and not his fault. She then looks to the rest of the class to help make David feel better. Ms. Brooke: "Family, what do we say when someone has an accident?" Class: "It's okay, accidents happen, let's try to fix it together." Ms. Brooke and the class brainstorm ways that they could fix the book. After the group decides on using tape, the teacher fixes the book and reads the story. She then hands the book to David and asks him if they can read it together during center time.

Ms. Brooke supported David and included the classroom in decision making. She also encouraged the children to work together to solve the problem. She provided an opportunity for the children to learn from one another and reminded David that the class cares about him. Ms. Brooke supported the classroom as a community and encouraged positive relationships in the environment.

A classroom is a second home for children where they spend a good portion of their waking hours. Thus, the environment should be reflective of the children in the class. When children feel respected and valued, they become comfortable and feel pride in and for the classroom. Children and family members should be greeted warmly and individually when arriving each day. Making home visits demonstrates care and interest in the child and their family. Ensuring each child has a space for their belongings and creations. Creating a welcoming classroom includes displaying children's work on the walls, pictures of children's family, child friendly labeling in English and DLL's home languages, and adding cultural artifacts.

Designate and maintain a soft comfortable space for children who might need a break or want to be alone. This area is not to be a form of punishment, rather a safe place for the children to calm down if needed. Make this space available to all children throughout the daily routine. Assigning weekly jobs, discussing issues that arise in group meetings and brainstorming solutions, establishing a solution

center, and providing opportunities for children to work together to complete tasks, such as setting the table, carrying portable gross motor activities outside, making signage for a classroom unit of study, setting up mats for rest time, or creating a mural help children feel a part of the classroom community.

Classroom Management

Classroom management is a key component when creating a preschool classroom. Managing a classroom is a skill that takes time for teachers to learn and to develop. As time progresses, the teacher and his/her management style will progress as well as continually adapt to meet the needs of the children. Observing and discussing classroom techniques with colleagues can help a teacher begin to develop their own style and practice. When children are doing something, you don't want them to do, or when you want them to do something they are not doing, commands, punishments and threats have little value. These methods tend to make children feel like resisting instead of learning to act responsibly. Worse yet, as children often model, they learn unsatisfactory ways to handle anger, sadness and frustration. Their ability to cope with relationships suffers.

There are a variety of approaches to resolving conflicts with children. No teacher or assistant will like or use all of them, but you may find some techniques especially suited to particular situations and your particular group of children. An effective approach to group management and discipline requires positive and developmentally appropriate techniques that ensure a child's physical and psychological safety.

Many of these techniques help to create a cooperative atmosphere in which the number of conflicts greatly decreases, and the classroom becomes a far more satisfying experience for both children and adults

- **Plan.** Think ahead about potential problems. Make sure that each interest area has enough room and materials for the children. Provide duplicates of popular materials (e.g. two egg beaters for the water table). Use a timer and waitlist for turns with the iPads.
- **Reinforce and encourage all appropriate behavior.** "I see Jose is helping to clean-up the block area." "I notice Marla, Maribel, and Rashawn are sitting on their bottoms ready for morning meeting."
- **Communicate your feelings.** Use "I" messages. "I am sad when friends don't share the clay." "I am worried you will fall when you sit like that on the chair."
- **Give choice.** "There are 3 people already at the water table. Do you want to play at the sand table or do a puzzle until someone leaves?"
- **State rule** or limit clearly, strongly and impersonally. "When someone is talking, we listen with our ears." "Blocks are for building, not for throwing."
- **Identify and empathize with the child's feelings.** Use "I" messages. "I can see that you are angry that Marcia scribbled on your picture, but I can't allow you to hit someone when you are mad. I have to keep you and all our friends safe."

- **Use natural and logical consequences.** "We don't throw water on our friends. Please get some paper towels to help Marcus dry himself off."
- **Describe the problem.** Engage children's help in seeking solutions.
- **Be alert to mood.** During extended days of rain when you can't go outside, make sure to have vigorous gross motor activity indoors. Understand that children may return from a long weekend or holiday with more energy and plan for less sitting and more active play.
- **Grab attention quickly.** Use songs or quotes to grab the children's attention. Flick lights, shake a musical instrument, or use call and response chants (e.g. Scooby Dooby Doo…Where Are You? Oh me…Oh my! Ready Set…You bet! Hocus pocus…Time to focus!)
- **Use a variety of positive guidance techniques** including problem solving, cooperation, making choices, and redirecting behavior in a positive manner. Positive discipline is aimed at helping children develop and internalize a sense of autonomy, self-control, and cooperative behavior. Speak to children at their eye level and actively listen to both their verbal and non-verbal messages. Speaking in a soft voice will often encourage children to calm and listen and speak softly as well. Model appropriate behavior and set an example for children to follow. Under adult guidance children learn to solve their conflicts and disagreements.
- **Time outs are not appropriate,** but at times you may find it necessary as a last resort to remove a child from a situation to ensure the safety of all the children. If this occurs, remove the child from only that particular area of the classroom and remain in the classroom with the child, redirecting the child until he/she has regained his or her self-control. When the child feels in control, he/she may return to all areas of the room. Children should not be isolated, told to go to a thinking chair, or made fun of.
- **Stay away from stoplight systems and tickets or tokens.** These systems impact children's self-esteem as they publicly highlight challenging behavior but do little to affect change.
- **Positive discipline does not permit hitting, abusive language, or ridicule.** Discipline should not be associated with withholding outdoor activities, food, rest, or emotional response.
- **Food should not be used** as an incentive or reward for positive behavior.

Class Rules

Children entering a preschool classroom are entering in a new world experience with different cultural rules and expectations than home and prior experiences. Some children have never seen a classroom before and therefore rules must be introduced immediately. The classroom rules and consequences are always age appropriate, definable, enforceable and consistent. Focus on the behavior, not the child. Validate children's positive behavior, promote confidence in their ability, and ignore a child's negative behavior if it is considered not to be harmful to themselves or others or motivated by seeking attention.

Strategies when establishing rules for the classroom and/or on the playground:

- Involve the children in developing class rules.
- Use positive language. Encourage the children to make positive choices. For example, instead of *no running*, the teacher could say *use walking feet*.
- Keep the rules simple. Classroom rules need to be easy to understand.
- Post class rules on a child friendly sign at their eye level and put in a place used regularly and reviewed periodically.
- Be consistent with the rules.
- Consider all recommendations and considerations for children with special needs.
- Consider children's culture, custom and traditions.

Example:

Reference for Classroom Chart

Challenging Behaviors

Challenging behavior is any pattern of behavior that is (1) at risk of interfering or interferes with children's optimal development and learning and later school success, (2) harmful to the child, other children, and/or adults, and/or (3) socially unacceptable (Kaiser & Rasminsky, 2017; Price & Steed, 2016). In the process of development and learning, many children engage in unintentional challenging behaviors mostly due to the lack of knowledge, skills or experiences, while some children use persistent challenging behaviors intentionally to achieve a certain purpose. Regardless of the intention, young children do not automatically grow out of challenging behaviors and gain the ability to behave in appropriate manners. In addition, children with persistent challenging behaviors are often the ones who require teachers' extra understanding and intentional support the most. Early childhood is the most effective and efficient period to address the challenging behaviors (Bredekamp, 2016; Fox & Lentini, 2006; Kaiser & Rasminsky, 2017; Kostelnik, Soderman, & Whiren, 2015; Shonkoff, 2017). Therefore, early childhood teachers should be able to help young children not only to reduce the challenging behaviors, but also to learn and replace them with the pro-social behaviors so that,

regardless of their culture, race, or ethnicity, all children can feel safe, respected, and supported for reaching their highest potential.

The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) has developed The Pyramid Model which is widely used across states including New Jersey. The Center promotes Positive Behavior Supports (PBS) as a problem-based model to prevent and reduce inappropriate behaviors through teaching and reinforcing positive social and emotional behavior. Resources for Scripted Stories, lesson plans for varied children's books, and strategies to teach and integrate social and emotional skills are available for free on their website. The website also included Training Modules for preschool teachers on ways to support social and emotional development and addressing challenging behaviors. See the Center on the Social and Emotional Foundations for Early Learning (CSEFEL) website. http://csefel.vanderbilt.edu/

In order to handle challenging behaviors, teachers should be able to (1) use preventive universal strategies; (2) systematically support children to develop specific social-emotional skills, and (3) develop and implement individualized intervention when necessary (Fox & Hemmeter, 2014; Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003; Kaiser & Rasminsky, 2017; Marion, 2015; Shonkoff, 2017).

Using preventive universal strategies:

- build positive, nurturing, and supportive relationships with children
- be responsive to children's basic needs and subtle signs of anxiety in their language and behaviors
- organize the classroom with adequate materials and well-defined centers
- design a predictable and balanced schedule with structured transitions
- set a small number of classroom expectations with children, provide children with concrete examples of the expectations, remind them of the expectations matter-of-factly, and enforce the expectations in a consistent and fair manner
- design and implement developmentally appropriate learning experiences that are engaging and hands-on, involving experiences from children's home culture
- build responsive relationships with families, involve them in education, and use their diverse perspectives and experiences as a tool to guide children's behavior
- be flexible, patient, and reflective

Facilitating social-emotional skills:

- support young children to identify, express, and handle their own emotions
- support young children to develop empathy and to build emotional relationships with their peers and adults
- support young children to develop a positive self-concept, high self-esteem and self-efficacy

- help young children learn to negotiate to get what they want peaceably, to cooperate and collaborate with peers, and to practice pro-social skills

Developing and implementing individual intervention:

- through functional assessment, identify the unacceptable behavior and how often it occurs, conditions that trigger the unacceptable behavior, and functions of the unacceptable behavior
- based on the collected data, develop positive behavior support strategies to help the child reduce the challenging behavior yet meet his/her needs in an appropriate manner
- constantly and consistently implement the individualized intervention plan
- conduct ongoing monitoring of child progress through observation and documentation; and revise plan as needed
- collaborate with other teachers and school staff, and other professionals including psychologists, medical doctors, social workers, etc.

Adaptations to the Environment: Special Education

Young children with disabilities (three to five years old) share the same learning, social-emotional, and developmental characteristics as their typically developing peers. They benefit from the same high-quality programs and resources for the same reasons. Inclusion of students with disabilities in high-quality preschool classrooms will provide access to and appropriate modeling of social, behavioral, and academic skills as well as providing opportunities for socialization, friendships, and an overall sense of belonging to a community.

In Subchapter 4. Programs and Instruction *N.J.A.C.6A:14-4.2* Students with disabilities shall be educated in the least restrictive environment:

- to the maximum extent appropriate, a student with a disability is educated with children who are not disabled
- special classes, separate schooling or other removal of a student with a disability from the student's general education class occurs only when the nature or severity of the educational disability is such that education in the student's general education class with the use of appropriate supplementary aids and services cannot be achieved satisfactorily
- a student with a disability is not removed from the age-appropriate general education classroom solely based on needed modifications to the general education curriculum

In the event there is a disagreement, the school has an obligation to inform parents of due process rights in referral. A parent and a preschool teacher or an administrator who is familiar with the school district's kindergarten program must be present at all meetings when determining special education services and placement. Classroom teachers are involved in the planning process.

Inclusion

To the maximum extent appropriate, preschool child with a disability should receive their education with typically developing peers. The preschool general education environment should always be the first placement considered when determining the goals and areas to be addressed for a preschool child with an IEP.

The rationale for including young children with disabilities with typically developing children is based on the following (ECTA, 2016):

- high quality inclusive settings are the only environments with data consistently supporting children's superior learning *and* non-inclusive environments have been shown to negatively impact children's learning
- fully inclusive options beat the alternative at a ratio of about 15 to 1
- fully inclusive options have been shown to work for children across disability groups and levels of severity (children with developmental delays, mild to severe; children with ASD; children with multiple disabilities; children with significant social and emotional needs; children with hearing impairment; children with limited mobility)
- fully inclusive options tend to be of higher quality in general
- greatest magnitude of effect is social (but also significant differences in communicative and cognitive skills
- typically developing children benefit in many ways: they develop more accepting attitudes toward individuals who are different, they display fewer challenging behaviors and they develop more advanced social skills and equal or greater cognitive and language skills.

Quality inclusive programming for students with disabilities in general education preschool programs means that classroom teachers receive:

- access to the IEP
- training and assistance from therapists and specialists including classroom observations
- feedback, methods, and techniques to use with children with disabilities
- scheduled time to attend all IEP meetings throughout the entire Special Education process
- training in the use of performance-based assessment to adjust instruction
- classroom space, equipment, and materials that are accessible to the child with disabilities

Parent access to planning sessions and the opportunity to listen to IEP team experts allows parents and families to make meaningful contributions to their child's IEP that enrich teaching and learning plans

and builds trust between home and school. Planning sessions should include support for the child and family as they transition to the next educational level.

Research has shown that children with disabilities gain short- term and long-term benefits from inclusion (Henninger & Gupta, 2014). Inclusion occurs when children with and without disabilities participate together in a general education classroom for all or part of the day. For short-term benefits, these children gain positive social and emotional developments and improvements, as well as cognitive growth (Henninger & Gupta, 2014). From a long-term perspective, multiple studies show that children included in an inclusive classroom at a very young age demonstrated the following traits: an understanding of socially acceptable behaviors, increased interaction with peers with and without disabilities, and feeling less stigmatized when joining pull-out services (Henninger & Gupta, 2014). The benefits of inclusion extend beyond just benefiting children with disabilities); inclusion also benefits typically developing students and society (Henninger & Gupta, 2014).

However, placing children with disabilities in an inclusive classroom is merely the first step. Teachers need to know how to create an environment that facilitates (a) meaningful interaction between peers with and without disabilities; and (b) meaningful participation in daily routines, work, and play with enough support that leads to independence (Henninger & Gupta, 2014). First, teachers must “teach” children how to interact with children with disabilities by naturally modeling positive social behaviors. “Naturally” is the keyword; children with disabilities should not feel as if they are being singled out. When teachers act and model naturally, a “disability” will be viewed as a “difference” not a “deficit,” by both children with and without disabilities. For example, when interacting with children with visual impairment, teachers should tell all students that, when asking/answering questions, they need to both raise a hand and say their names. This way, children with visual impairment can know who is talking.

All children deserve to be in a high-quality and developmentally appropriate classroom. The teacher and program staff must work together to provide and modify the classroom accordingly to meet individual needs for all students including children with IEP’s or 504 plans. It is imperative for the teacher to understand the abilities and disabilities that the children in their classroom might have. A developmentally appropriate approach can be done in a variety of ways. But most importantly it needs to be based on the children's needs.

Summary

Effective preschool teachers plan and arrange engaging, safe and healthy learning environments respectful and reflective of the children in their classroom. They incorporate stimulating interest centers and play areas with varied purposeful materials that both challenge and provide comfortable use. Effective [reschool teacher create consistent daily schedules that allow for children to work independently, in small groups and whole groups, as well as to manage personal care and routines. Recognizing the benefits of play, they provide extended time for children to select and initiate their own activity. Effective preschool teachers are purposeful in building a classroom community, use positive approaches to classroom management and encourage children’s ability to self-regulate and solve problems. Effective preschool teachers adapt the environment and routines based on the strengths, needs and interests of all children.

Section 3: Intentional Teaching

Intentional teaching values children as individuals with their own characteristics, paths, nuances, and prior experience. Intentional teachers have a thorough knowledge of how children typically develop and learn. They gather data about the interests, strengths and abilities of the children through ongoing observation, documentation, and authentic assessment and use this information to plan interactions, scaffolds, questions, activities, and routines. Intentional teachers have and use a wide range of instructional strategies. They make intentional decisions about when to use a given strategy to support the different ways children learn and the specific content and skills they are learning. They know that children construct knowledge through active investigation, representation and reflection; they recognize that meaningful learning is integrated; they understand that communication is central to learning.

Intentional teaching is characterized by:

- high expectations for all children
- effective planning and management
- learning-oriented classrooms with ample time for free play
- engaging activities
- thoughtful questioning feedback

At the heart of intentional teaching is effective adult-child interactions (Epstein, 2014). Intentional teaching does not happen by chance; it is planned, thoughtful and purposeful.

Intentional teaching blends child-guided experiences with adult-guided experiences (Epstein, 2014; National Association for the Education of Young Children, 2009). Epstein notes that adults play intentional roles in child-guided experiences; and children have significant, active roles in adult-guided experiences. She further explains that child-guided experiences are those that stem from children's interests, choices and actions, supported by teacher's intentionality. Adult-guided experiences are those that stem from teacher goals, objectives and curriculum standards, but are also influenced by the children's active engagement and experience.

This section presents strategies to observe and gather information about each child's development and learning across domains to plan instruction. It incorporates intentionality in group meetings and play, as well as in the myriad of adult-child interactions that occur. Strategies to purposefully support all children including dual language learners, and those with special needs are also discussed.

Screening, Observation, Documentation, and Performance-Based Assessment

"Screening is a brief procedure designed to identify children who should receive more intensive diagnosis or assessment and to help children at risk to receive intervention services as soon as possible" (Cantu, 2004, p. 45). Radecki, et al. (2011) noted from the National Early Childhood Longitudinal Study-Birth Cohort that at 24 months of age, nearly 14% of children have developmental delays that are likely

to make them eligible for early intervention services as specified in the Individuals with Disabilities Education Improvement Act.

Screening should be administered four to six weeks after children begin the program, giving children time to acclimate to their classroom environment and form a relationship with the teacher. Screening is often completed by the classroom teacher, in the child's home language, within the classroom setting. Any staff administering the screening tool must be formerly trained in the tool being used. Screens are quick, easy to use, and provide teachers with information used to identify children with special characteristics and determine if further assessment is needed. Having this information is critical in connecting children and their families with the appropriate resources and services to meet each child's individual needs. Screening is always linked to appropriate follow-up by rescreening in twelve weeks or referring to special education professionals for more focused assessments. Interventions should never result from a brief screening or one-time assessment. Screening information must not be used to determine classroom placement or grouping as screening tools are not designed to document children's progress over time.

Performance-based assessments use multiple sources of evidence gathered over time and requires careful reflection by the classroom teacher to be used to support and guide planning and instruction. Performance-based assessments are used in curriculum planning, professional development, and reporting to other professionals and families. Their primary purpose however is to inform classroom instruction. Without ongoing performance-based assessments teachers would not possess the insights necessary to make informed curriculum and planning decisions for the children in their classrooms. As teachers review evidence in correlation to New Jersey Student learning Standards, they can plan experiences appropriate for children's strengths, needs, and interests. Performance-based assessments allow teachers to document children's knowledge, skills, and behaviors across all domains of learning in ways that are appropriate for how young children learn and to assess the child's development as related to objectives, indicators, or standards.

Observation is the basis of all good teaching and the foundation of any assessment system (Jablon, Dombro, & Dichtelmiller, 2007). Observing and gathering evidence on children is an essential part in aligning assessment and curriculum. Preschool teachers must continually reflect on information gathered to properly support and scaffold children's development and learning. Gathering information on children takes time and practice on the part of the teacher. There is no one size fits all assessment or activity for young children. Teachers must carefully document children's development in various ways throughout the preschool day to capture a holistic picture of children's development. Documentation should be gathered as children engage in play as well as daily routines, interactions, and classroom experiences. When gathering documentation on young children, it is essential to have a systematic approach to keep track of the types of documentation being collected as well as the content area and New Jersey Pre-K standards (New Jersey Department of Education, 2014). By having a system in place, teachers can ensure they are capturing evidence across all domains of learning. Many performance-based assessment systems consist of three comprehensive reflective cycles throughout the school year. This is done to communicate children's growth, based on evidence collected, to families and other professionals as well as to plan for children's next steps.

Documentation should be collected in various forms:

- Anecdotal notes – Short and objective notes about what teachers hear and see. Include descriptions of actions, facial expressions, gestures, and use direct quotes.
- Photographs – Pictures of children's artwork, constructions, and interactions. Date each photo and provide a brief explanation of context.
- Video or audio clips – Provide evidence of what the child knows and can do. Keep clips brief.
- Work samples – Photographs of writing and artwork, including children's dictations.
- Sociograms – Graphic organizers to gather information of who interacts with whom. Depending on questions the teacher has, a sociogram can be used to answer who plays with whom, who sits together, or who interacts negatively with one another.

When collecting documentation teachers should:

- keep track of what they observe
- watch children in various situations
- observe over time
- observe objectively
- focus on what children can do
- store information collected electronically or in individual portfolios

As teachers observe and document children's development and learning they can make decisions about when to:

- wait and watch
- introduce a new material, book, skill, or vocabulary word
- model language, a skill, or strategy
- offer a suggestion, guidance, or support
- provide specific feedback to describe or demonstrate vocabulary
- use open-ended questions to encourage critical thinking
- intentionally plan small groups
- plan a learning experience targeted to individual children's interests and needs
- make changes to the physical environment
- share observations with families and discuss next steps for school and home
- ask for input and feedback from other professionals

Observing, documenting, and assessing children's development using a performance-based assessment tool are critical components in helping teachers effectively meet the needs of the children in their classrooms. When teachers gather this information on young children, they gain valuable insights on how to connect children with the appropriate supports, scaffold children's learning, and drive their instruction.

Using Data to Inform Instruction

Seeing children is about seeing the details of their remarkable ideas and actions. Studying what you observe…. to find children's skills and competencies… informs your practice when responding and planning for children (Curtis, 2017, p. 3).

Young children learn best when what they are learning is meaningful. When teachers observe, they learn about children's prior knowledge, interests, assets, and experiences. Prior knowledge is often acquired from the cultural context of families and community. Children learn from seeing, hearing, and modeling what important adults and siblings say and do. Teachers should then use this information to tailor instruction to the children in their classrooms. Teachers can make adaptations that enable children to overcome obstacles and build on what they know well. Observation is a powerful teaching resource: it should help teachers build strong relationships with children, provide information on what and how to teach each child, deepen understanding of child development and learning, gather evidence about children's progress, and provide specific examples of what to share with families. Ongoing assessment allows teachers to intentionally plan for both individual children as well as small groups (Jablon, Dombro, & Dichtelmiller, 2007).

Regardless of the assessment tool being used, teachers should have ample documentation to determine what supports a child's or group of children's needs and competencies. Teachers' reflections on evidence collected in relation to state standards informs the types of experiences they offer children. By using data, teachers can support children in making progress toward standards. When teachers understand their assessment information, they are also able to refer to it during conversations with families. This strengthens the home-school connection, as well as builds family partnerships as teachers can communicate children's strengths, as well as strategies to use at home.

Meaningful Interactions

Two preschool children gather around the art table as they create various shades of blue by mixing blue and white tempera paint in muffin tins.
Vignette:
Abraham exclaims, "I make so many blue colors." Brielle answers, "Me too. Mine is so many kinds of blue. I mix it here with the white. Now the colors are different. Some go to dark and darker and darker." The teacher sits down beside the children and observes the problem solving occurring before her eyes. She takes a moment to think before she comments, "I notice that you both created darker shades and lighter shades. How did you do that?" Both children eagerly explain their process. Next, the teacher pulls the familiar Pantone Colors book off the art shelf and brings it to the table. "You created many shades of blue. I wonder if you could name the shades that you created like Pantone does in his book." The teacher opens the book and points to the writing under the various colors. "Remember we talked

about his work during morning meeting?" Brielle, "Yea. We look at his book. Him do a lot of names" Teacher, "He did spend a lot of time naming shades of color. Why do you think it was important for him to write the names down?" Abraham, "So everyone can know they are special colors." Brielle, "I can do it like this. This one is called Big Daddy Blue because it the darkest, darkest one." Abraham, "This one is Ity Bity Baby Blue because it only has a little white." Teacher, "We should write all of this down so everyone will know the special names of the shades you created."

Children's positive relationships with their teachers lay the foundation for children's exploration and learning and enhance the likelihood of children's engagement and achievement in school. The social climate of the classroom is a critical part of the learning environment because relationships with peers and teachers greatly influence the way children feel and how they learn. Preschool teachers foster children's trust and social-emotional development when their interactions are warm and responsive to individual children's interests, needs, and feelings (Dodge, Colker, & Bickart, 2010). Because of this, teachers should find opportunities throughout the day to provide interactions that support learning during classroom routines and while children play.

Preschool teachers promote learning when they model curiosity, introduce new vocabulary, encourage thinking, teach how to find answers, and recognize children's accomplishments as progress. Interactions work best when teachers' responses are intentional rather than automatic. Effective preschool teachers reflect on their practice by asking themselves questions such as, "What do I want to convey to children? What did I do? How did children respond? When teachers slow down to observe and reflect on what is happening before stepping in to offer direction or a helping hand, their responses are more in tune to what the child needs. Observing helps teachers build relationships by revealing children's temperament, strengths, and personality (Jablon, Dombro, & Dichtelmiller, 2007). When children feel connected to adults and their classroom community, it gives them the self-confidence to try new things, make mistakes, and ask questions.

Conveying Respect and Appreciation for Children:

- put yourself at children's eye level
- give children time to gather their thoughts
- acknowledge children's feelings
- listen and respond to what children tell you through their facial expressions, body language, and words
- comment on what you see children doing using "I notice" statements, "I notice your block tower wobbled as you added another block."
- ask open-ended questions where there is no right or wrong answer
- provide opportunities for children to help each other
- offer specific feedback rather than general praise
- acknowledge children's progress

- use respectful language

Dombro, Jablon, and Stetson (2011) consider interactions to be *powerful* when teachers connect with children to extend their learning. "Everyone one of your interactions holds the potential to make a positive impact on how children feel about themselves and about learning, as well as on what and how they learn" (p. 1). Powerful interactions are about being deliberate and thoughtful in what you say and do.

Dombro, Jablon, and Stetson outline three steps to turn common everyday interactions into intentional powerful interactions:

1. **Be present**. This means being focused in the moment, pausing to observing what the child is doing before you interact, and taking a moment to think about what you will say to enhance learning.
2. **Connect**. This means acknowledging the child by letting them know you are interested in what she is doing and want to spend time with her. For example: *I notice you are building a building with the blocks. You choose blocks a lot and I see you have added blocks across the top*; or *I see you are cooking and are stirring something in that pot. Your mom likes to cook as she often makes a dish for our family meetings.*
3. **Extend learning**. This means asking a question or making a comment "adding to their knowledge, encouraging them to try new things and think in new ways, modeling language, introducing new vocabulary, and other learning possibilities" (p. 7).

Teachers have dozens of interactions with individuals and small groups throughout the day. Many of these are cursory comments we make or basic questions we ask and involve little back and forth conversation. Being intentional to have powerful interactions takes practice to pause, relate to the child, and be educative in your interaction to expand the child's learning.

Morning Meeting

Morning meeting sets the tone for the day and provides an opportunity for children to practice communication skills as they express ideas, thoughts, experiences, and feelings. This part of the day also provides time to solve problems that affect the whole group, to discuss new topics, and to share what is happening at home (Dodge et al. 2010). Because meeting times foster a sense of community and strengthen relationships, children and teachers should be seated in a circle so that each face can be seen. Morning meeting should begin similarly each day with a welcome song, chant, or finger play in order to establish a sense of routine. Preschool teachers may also introduce new materials that will be added to interest areas, discuss a special activity or visitor, or lead a discussion on the study topic.

Morning meeting provides an opportunity to engage children in a shared writing experience where children's ideas and questions are recorded as a group. Preschool teachers should avoid rote activities such as counting without a purpose or singing the days of the week without reason. Rather, teachers should plan meaningful and engaging activities that are purposeful and connected to children's interests, a current project, or topic they are studying. While not practical or engaging for each child to respond or comment in every discussion, whole group conversations should, over time, involve all

children. Preschool teachers should also infuse math and interesting vocabulary throughout morning meeting. For example, during a study on trees, children may count the number of acorns and leaves that were collected the previous day and record the results in multiple ways. Preschool teachers should also use graphic organizers to record children's contributions to discussions and to model writing for a purpose. These charts can be created daily or added to over time depending on the type and goal in mind.

To model writing for a purpose, teachers can:

- create lists with children
- write letters
- create KWL charts (know, want to know, learned)
- write "how-to"
- web children's ideas
- record steps to solve a social problem
- create T charts (comparing two things such as characters in stories, or pros and cons)

Small Group Time

Vignette:
Miss Nicole sings a familiar chant as children transition to participate in the day's small group activity. The teacher carries a few baskets of loose parts and black felt to the table as children gather around. She intentionally planned this small group to encourage creativity, persistence, and descriptive language. She places the items on the table and begins by asking children. "Do you remember what we use these black pieces of felt for?" A child answers, "We put all the things on top, so we can see our own space." The teacher replies, "You are right, it is important for everyone to have their own work space. Rayyan, can you help by giving all of your friends a piece of felt to work on?" As Rayyan passes out felt pieces, the teacher places the baskets of loose parts on the table. She simply states, "I wonder how we could use these materials to create something interesting." By keeping the prompt open ended, the teacher allows children to problem solve and decide what to do with materials on their own. As children begin to create with loose parts, she comments on their work using "I notice" statements and encourages children to explain their process. She also makes sure to document her observations by taking photographs and capturing children's language usage through dictations.

Working with small groups of children is an important aspect of the preschool day as it provides an opportunity for teachers to intentionally plan experiences, group children, and scaffold learning. Small groups should consist of three to seven children, at least one adult, and should last no more than 10-15 minutes based on the ages and abilities of children. Depending on the number of adults in the room, all children may be working in small groups at the same time with different activities or those children who are not involved may choose a quiet activity such as completing a puzzle.

Grouping children should vary depending on the teacher's intention of the small group. When planning, preschool teachers must reflect on each child's progress, interests, and needs with state standards in mind. Depending on the teacher's goal, children may be grouped homogeneously based on need for support, modeling, or to challenge children. While other times heterogeneously to promote peer scaffolding. Small group content should also vary to provide targeted supports for multiple domains and standards. For example, during a study on clothing, one small group may explore an open-ended material such as buttons, while another focuses on retelling *Corduroy* using sequencing cards or props.

Regardless of the content, all activities must be meaningful to children in the group and connected to the topic of study. Materials for small group should be selected, prepared, and organized ahead of time to eliminate unnecessary wait time. This can be done daily or weekly depending on personal preference. Children should also be aware, ahead of time, who they are going to work with for the day's small group. This can become part of children's morning routine by creating a small group chart next to daily sign-in. By placing children's pictures next to a picture of the teacher they will work with for the day the teacher is establishing a sense of routine. Expectations for small group should also be clearly explained early in the year to promote positive behavior and engagement.

Small groups provide time for teachers to:

- teach a specific skill to children
- differentiate instruction and provide targeted supports
- introduce a new concept
- introduce and model language
- introduce a new material
- promote problem solving and critical thinking
- collect documentation
- individualize teacher-child interactions
- engage in richer conversation about a book, material or idea

Whole Group Activity

Whole group activities should be used as an extension of learning that is taking place during choice time and to strengthen connections to various content areas. Whole group activities should also be engaging and provide connections to the current study topic. As it is difficult for young children to attend in a large group, this part of the schedule should be kept brief and teachers must use strategies to capture children's attention. When preschool teachers plan interesting and meaningful group experiences, children are more likely to stay on task and involved in the activity. For example, the teacher may plan a whole group activity in which she introduces a new finger play related to the topic of study using chart paper, music, movement, and/or props. Teachers can also plan interactive games that require whole body movement and provide opportunities for children to work together. For example, during a study on wheels, the teacher may place different types of vehicles in a mystery box. As children pass the

mystery box around the circle, they choose a vehicle and move around the meeting area to find a peer who has the matching vehicle. Whole group time also lends itself to modeling and wondering aloud with children about an experiment that will be added to the discovery area for children to explore independently during choice time or to introduce a new material in a center or orient them to what is to come. Remember to keep any whole group time short with children actively involved and not passively having to listen or wait their turn.

Strategies for keeping children engaged during whole group activities:

- incorporate music and movement
- use interactive games
- use props and provide visuals
- change the tone of your voice
- if reading, use big books and choose short stories (reading to young children is more appropriate in smaller groups)
- give children an active role
- be clear and consistent in your language
- keep transitions and wait times brief
- keep whole group times short and active with less focus on you

Free Play and Choice Time

Play is practice in choosing, doing and problem solving. When children play, they are thinking, innovating, negotiating, and taking risks. They create make-believe events and practice physical, social, and cognitive skills as they engage in these events as if they were real. Teachers support play by providing a variety of things to do, observing what unfolds, and staying nearby to help as needed and to acknowledge children's actions and words (Koralek, 2004).

Choice time is the foundation of the preschool day and should occur twice a day for an hour or more. During choice time children select whom they would like to work with, which interest area they would like to play in, and what materials they would like to use. It is important that all interest areas are made accessible to children daily, including blocks, dramatic play, art, sand and water, library, writing, computers, discovery, toys, and games. As choice time unfolds children may move from one center to the next. However, teachers should foster high levels of play through a carefully planned environment and meaningful interactions which encourage children to sustain and extend activities for longer stretches of time.

For preschool children, making and carrying out choices is a critical skill that should be supported with play planning or a visual cue such as a planning board. Play planning involves children making choices not only about where they want to play but what they plan to do and verbally expressing or visually

representing their plan. Play planning is best done in small groups to avoid long wait times. If using a planning board, it should be introduced at the beginning of the year, during a meeting time, so children learn and understand how to use it. Teachers should create a system, such as children sticking their picture on a Velcro strip next to the center, they choose to work in. Depending on the size of the classroom, teachers may limit the number of children permitted in each center to ensure there is enough space and materials for children to carry out their play safely. As children become more comfortable with the classroom environment, the planning board may no longer be necessary. Time for cleanup at the end of choice time must also be allocated for as valuable life skills are being supported when children work together to care for and clean up their physical environment.

Choice time offers a unique and valuable opportunity for teachers to interact with individual children and groups of children in meaningful ways to extend their learning. When preschool teachers are active participants in choice time, children will reach higher levels of engagement.

Effective teachers do this when they:

- follow children's lead
- assist children in solving social problems
- comment on children's work using "I notice" statements
- ask high level questions
- assist reluctant children to decide what they would like to do
- informally read and sing with children
- observe and document children's efforts
- scaffold children's learning by offering support or questions
- refer to study materials, anchor charts, and books
- engage in conversations with children
- get down on children's level
- use interesting vocabulary and model language
- meet children's individual needs by having many one-to-one interactions

All Day, Every Day

Intentional preschool teachers do certain things each day to ensure they are meeting and supporting all children's learning and development. A critical part of being intentional is constant reflection on the classroom environment, interactions, and assessment information.

Intentional preschool teachers do the following daily:

- greet children and family members by name as they enter the classroom
- read informally to small groups of children
- connect stories read to children's play and prior knowledge and experience
- minimize transitions/wait time
- make the most of transition times by singing or playing a game
- interact with children during choice time in meaningful intentional ways
- ask open-ended questions
- add information and expand on children's ideas
- connect informal conversations and events to planned activities
- connect literacy and math concepts to play, daily classroom activities, and routines
- support and extend pretend play
- listen carefully to children's questions and plans
- encourage children to explain their thinking
- use and introduce rich vocabulary
- assist children as they solve social problems
- foster independence in self-help skills
- offer interesting problems to solve
- offer new, interesting materials or suggest a new way to use
- modify activities and materials based on individual children's needs
- provide supports to expand children's thinking
- provide targeted supports for dual language learners and children with special needs
- observe and document children's learning by taking anecdotal notes, photographs, and videos
- reflect on assessment information gathered and decide what the information gathered tells about children
- reflect on the day's events to see how the children interacted with each other, and materials, and the environment
- encourage children to reflect on the day's events
- prepare materials for the following day
- provide families with information and strategies to use at home

Scaffolding, Individualizing, and Teachable Moments

During a study on buildings, two 4-year-old children build collaboratively at the light table with magnetic shape tiles. As children build, they create a space for a door. Ashley exclaims, "Here is where the people go to school. They go in this way to the class." Jacob responds. "Oh, the door. The door to go inside my big school. Now we need the big window." As they continue to build, their structure falls. The teacher stands nearby and pauses to observe for a moment before she takes advantage of the opportunity to scaffold children's problem solving by offering a suggestion. The teacher walks over to the light table and says, "I notice you are working together to create a window for your school. I wonder if it would help to look at a picture of your block structure from yesterday's choice time. I remember that you built windows with the wooden blocks. Both children smile and immediately respond to the teacher's suggestion by referring to a picture of their building from the previous day. The teacher continues to facilitate learning by encouraging children to explain their thinking as they problem solve using the picture as a reference.

Preschool teachers observe children's interactions and engagement throughout the day and intentionally use these observations to scaffold children's learning. These observations provide teachers with valuable insights on children's knowledge and abilities and allow them to plan next steps for individuals and groups of children. Plan activities that stretch children just beyond their current level of independence. When a task is just above a child's current level of development, adults and peers can provide supports that enable the child to carry out the task. When children are successful, they begin to apply the skill to a variety of new contexts and settings (Dodge et al., 2010). Careful observation and reflection allow teachers to individualize scaffolds to meet children's needs. Connect appropriate supports to children's interests, background knowledge, and current level of development.

Preschool teachers should pay close attention to the things that children are doing and saying as they work and play. By doing so, teachers can make the most of their interactions by providing specific feedback as they tell children what they see and hear them doing. For example, "I notice you put the shells in two groups. Can you tell me about how you grouped them? Why?" Look for teachable moments to extend learning. Decisions preschool teachers make about the environment, daily routines, and learning opportunities affect children's development and their sense of competence (Jablon, Dombro, & Dichtelmiller, 2007). Creating a classroom community that is conducive to scaffolding also means creating an environment where children feel safe to make mistakes, take risks, and fail all while continuing to persist at a task. Children must also feel empowered to help others as well as seek assistance when needed. These interactions should occur throughout the preschool day during choice time, small and large groups, and during transitions and routines.

Scaffolding techniques include:

- modeling skills, language, and behaviors
- providing visual cues such as gestures or pictures
- encouraging children to explain their answers
- using "I notice" statements as you comment on children's efforts

- explaining directions in steps using clear language
- providing specific feedback
- challenging children just above their current level of independence
- offering choices
- providing suggestions
- encouraging observation and predictions
- building on children's prior knowledge
- grouping children intentionally to promote peer scaffolding
- referring to books, pictures, and anchor charts
- offering hints or clues
- minimizing scaffolds as children become more independent

Fostering Engagement

Children's interests motivate them to learn and seek information. Preschool teachers cultivate children's interests through discussing real life activities and experiences, and incorporating daily observations, defining interesting vocabulary, and explaining natural occurrences. When preschool teachers take notice and document these interests, they can engage children by reading, singing, or talking about that topic. It is important to not "wait" for interests to reveal themselves if they don't. Teachers can also plan extension activities as well as in-depth studies/projects based on concepts that naturally motivate and excite young children. Intentional teachers draw upon interests to help children build connections to peers, classroom materials, and content standards. By following children's lead and expanding on topics that interest them, teachers send the message that they value what is important to the children in their classrooms.

Effective preschool teachers ensure that teacher-directed times of the day such as whole and small groups are engaging enough to capture children's attention and help them internalize concepts. When teachers use storytelling, props, real life artifacts, music, and movement, they can motivate children to participate in the activities they offer in meaningful and developmentally appropriate ways. By doing so children can make reflective and relevant contributions to their own learning. When children are motivated, they are also able to sustain their play and engagement for longer periods of time, resulting in higher levels of dramatic play, language skills, and critical thinking. All of which build the foundation for positive social skills, positive approaches toward learning, and self-regulation.

It is important to carefully consider the cultural and community appropriateness before deciding to expand a topic to an in-depth study. For example, a child may be interested in the rain forest. Although a teacher may engage in a conversation or read a book to the child on this topic, it would not be appropriate to plan an in-depth study as the rain forest is too far removed from the everyday lives of

preschool children in New Jersey. Rather, topics that children can have direct experiences with will provide the most valuable resources for learning. Consider the following vignette as an example.

Every Tuesday and Thursday are street cleaning days in the urban area of Miss Martha's preschool classroom. Every week children gather alongside the fence of their gross motor area to watch as the street sweeper passes by. "That is the gigantic truck that does the brooming of the road!" screams a child. "I see that broomer truck by my house. I see the lady inside driving!" exclaims another child. Week after week Miss Martha observes children's excitement over the street sweeper and decides to take this opportunity to expand on children's interests. She goes to her local library and takes out several nonfiction texts on street sweepers. She also calls the town to schedule a special visit from the street sweeper. She even finds a local mechanic who will donate an old steering wheel for the dramatic play area and tubing for the water table. After brainstorming on the topic, she realizes she can connect children's interest to all areas as well as domains of learning. Miss Martha can plan for numerous activities that will engage and sustain children's learning based on a topic they were naturally curious about.

Asking Questions

High-level questions encourage children to expand their thinking and perspective on a subject (Strasser & Bresson, 2017, p. 6).

In a typical day, teachers spend a great deal of their time talking. Much of that talk is giving directions and managing behavior (e.g. Come to circle and sit on your bottom; It's time to clean up; Use your inside voice) or stating facts and answering questions (e.g. I see you have new shoes on today; the author is the person who writes the book; I don't think we'll be able to go outside today); or praising or reprimanding (e.g. Good job! Lionel, keep your hands in your lap. What a beautiful picture you made.) or closed questions that ask for information (e.g. What color is the truck? Is that your hat? What shape is that? How many buttons does Pete the Cat have?). To stimulate thinking, however, intentional teachers ask higher-level questions that have more than one right answer or no right answer.

Anderson and Krathwohl (2001) revision of Bloom's Taxonomy provides a guide for teachers to develop lower and higher-level questions.

Bloom's Taxonomy Guide for Questions

Levels of Bloom's Taxonomy	Description	Examples
Remember	recalling, repeating, identifying, naming, Who, what, where, when	What did the polar bear see? What was the teddy bear's name? Where did the bear go?
Understand	describing, citing examples, choosing,	What happened to the bird? What can we use to wipe up the spill? How many sides does a triangle have?

Levels of Bloom's Taxonomy	Description	Examples
	discussing, explaining, reviewing	
Apply	dramatizing, generalizing, using, carrying out, relating to, demonstrating	What do you see in our room that is the shape of a circle? Can you make a pattern with the beads? Tell me a time you felt the same as Little Hen.
Analyze	comparing, contrasting, differentiating, concluding, inferring, experimenting	How did you build that, so it doesn't fall? What else could the bear have done? How are bristle blocks the same as Legos?
Evaluate	assessing, estimating, judging, choosing, testing, revising	There are 6 children who want to ride bikes and only 4 bikes. What is a fair way to decide who should get to ride? Which character in the book would you choose for a friend? Why? How many steps will it take to get down the hall?
Create	originating, inventing, designing, constructing, conceiving, making	Make a design for the pattern you'd like to follow for making a bead necklace. Draw a cover for this story. How can we make a forest for the animals?

Additional techniques to ask more creative questions.

- **Ask open-ended questions:** Show the child a picture, then ask questions to stimulate and create a thinking atmosphere. For example: What are the people in the picture doing? What are the people saying? What can you tell me about your building? What do you know about caterpillars?
- **Ask children to use their senses:** Young children may often have their creative thinking stretched by asking them to use their senses in an unusual way. Have children close their eyes and then guess what you have placed in their hands: a piece of foam rubber, a small rock, etc. Have children close their eyes and guess at what they hear: use such sounds as shuffling cards, jingling coins, rubbing sandpaper, ripping paper, etc.
- **Ask children about changes:** One way to help children think more creatively is to ask them to change things to make them the way they would like them to be. For example:

  What would taste better if it were sweeter? What would be nicer if it were smaller? What would be more fun if it were faster? What would be better if it were quieter? What happened when you mixed the blue paint with the yellow?
- **Ask question with many answers:** Anytime you ask a child a question which requires a variety of answers, you are aiding creative thinking skills. Here are some examples using the concept of water:

What are some of the uses of water? What floats in water? How does water help us? What always stays underwater? Why is cold water cold? What do you think happened to the water that was in the puddle?

- **Ask "What would happen if…" questions:** These questions are fun to ask and allow the children to really use their imaginations and higher-order thinking skills. What would happen if all the trees in the world were blue? What would happen if all the cars were gone? What would happen if everybody wore the same clothes? What would happen if you could fly?
- **Ask "In how many different ways…" questions:** These questions also extend a child's creative thinking. In how many ways, could a spoon be used? In how many ways could a button be used? In how many ways could a string be used?

Strategies to Support Dual Language Learners

Celebrating different languages and cultures is critical to school success. Children and families should feel respected, valued and welcomed in school. Research shows that children need to continue learning in their home language even as they begin to transition to English (Tabors, 2008; Nemeth, 2009). As teachers share this knowledge with the families of their children, it provides families with a greater understanding of what is most beneficial in helping their children achieve academic success in English. Create a consistent and predictable routine that uses cooperation, working together, small group interactions, and regular opportunities for Dual Language Learners to talk informally with English speakers.

The Classroom Environment

Post a daily schedule with pictures. For Dual Language Learners it is especially important to have visual representation and the predictability of what comes next. Display pictures at children's eye level (pictures of current topics, seasonal pictures, and current interest to the children). Use these and other displays to introduce new words and encourage informal conversations with the children. Label objects and areas of the classroom using pictures and words in English and in the home language of the Dual Language Learner. The labels also help the adults use the child's home language when referring to the items and areas during routines and play.

Strategies for supporting Dual Language Learners through varying parts of the daily routine:

Arrival/Greeting Time: Learn the correct pronunciation of each child's name. Names are not always easy to pronounce but they are important to the children.

Small group activities: Organize small groups to include a mix of first and second language children for planned activities. Speak clearly. With the assistance of families and bilingual colleagues, create a key word list in the children's home language. Learn and use these key words to provide daily support to the Dual Language Learner.

Whole group activities: Integrate children's home language into everyday classroom routines and activities through songs, poems, dances, rhymes, chants, counting, and books. Use simple, short

sentences. Repeat routine phrases (for example, "crisscross applesauce"). Use repetitive songs or rhymes with movement that also emphasize language sounds and key words. It is important that Dual Language Learners feel they can participate with the group by clapping, moving their feet etc. while learning the words to the song or rhyme.

Outdoor time: Dual Language Learners will be more willing to participate in outdoor play when the teacher models the action along with the words to demonstrate skills (throwing, catching, climbing, running, jumping, hopping).

Read–Aloud: Read to small groups of children to engage them in the story. Select books carefully; use predictable books, informational books, and especially with Dual Language Learners, use stories that reflect the children's cultures and communities. Preview and review key concepts and key vocabulary using both languages whenever possible. Read the books again and again. Send home versions of the selected titles in the child's primary language. Encourage families to converse and read with their children using their own strongest language. Invite family members to read to a small group in their primary language.

Transitions: Be clear about transitions. Non-verbal supports such as the use of a universal warning signal for clean-up (turning on and off the light) and a different signal when the time is up (ringing a bell) help Dual Language Learners learn to self-regulate.

Center Time (Free Play and Choice): Set up each area with materials that will be the focus of study in the coming week(s) and learn a few of the key words in the language(s) the children speak by asking families, other staff or using an app or website such as *Google Translate*. Introduce and constantly review names of material(s) and demonstrate how to use them. As you move around the room interacting with children in their play, make sure to take time to join in their play, commenting on their actions and asking appropriate questions. When you don't speak the language of a child, it is easy to unintentionally walk by unless a conflict arises. Take time to listen to each child, if he or she cannot find the word in English, help him or her with the word by offering a cue or a prompt (visual, verbal, gestural, physical, model). Encourage the Dual Language Learner to teach you vocabulary in their primary language as you help them learn the English word for materials and actions.

Strategies to Support Children with Special Needs in Inclusive Pre-K Classrooms

N.J.A.C. 6a:14-3.7 (C) When developing the IEP, the IEP team shall: 12. Review the preschool day to determine what accommodations and modifications may be required to allow the child to participate in the general education classroom and activities.

While preschool teachers will be adapting the lesson plans to meet the needs of all the students in their classroom, it is especially important to intentionally plan for the adaptations that preschoolers with disabilities may need to support participation and learning. Accommodations and modifications are the tools that educators use to help students' access and participate in the general education classroom and activities. We should start with the least intrusive accommodations before implementing the most intrusive to be consistent with providing the least restrictive environment to students with disabilities.

The first area to consider are environment changes, such as rearranging the furniture for wheelchair access or adding blocks under a student's feet for support. Ask yourself if all children can access the materials easily. If not, move materials to a lower shelf and remove lids that are difficult to open.

Some students with disabilities will need more movement breaks added to their day, while others may need time to sit down and have a shortened activity. Activities, including how many students are in a group, should be modified based on the child's needs. Teachers can create scenarios within play centers to encourage social interaction and cooperative play.

Look at the materials that the children are using and consider whether adaptations can be made so that they can participate fully. Some adaptation examples might be using grips on writing instruments, providing adapted scissors, and having dramatic play clothing that can be put on and taken off easily.

All preschool students benefit from utilizing picture cues, such as visual schedules and rules. Students with disabilities may need instructions broken down into even smaller segments, or a task analysis. Teachers should understand how many directions a student can follow at a time, and plan accordingly.

The last adaptation we should consider is assistance, where we provide hand over hand or direct help. As teachers intentionally implement strategies to accommodate children with disabilities, you are supporting access to the curriculum for all children.

Summary

Intentional teaching is about acting with purpose in mind. Effective preschool teachers observe, listen to, assess, and deeply know their children both as a group and as individuals. Effective preschool teachers shape interactions and activities with intent. They scaffold, ask high level questions, look for teachable moments, individualize, and foster engagement. They recognize that teaching is about having powerful adult-child interactions. Effective teachers adapt and use multiple strength-based strategies to support and ensure that dual language learners, and children with special needs function, thrive and succeed.

Section 4: Exploring Curriculum

Curriculum has many definitions as it means different things to different educators (Kostelnik, Soderman, & Whiren, 2015). In this section, we consider curriculum holistically to include the learning environment and materials, adult-child interactions, teaching strategies, and content standards. All are interdependent and connected, and all impact the learning opportunities and outcomes for children. As the environment and interactions have been addressed in prior chapters, here we will focus on strategies and standards.

In high quality preschool classrooms, teachers build meaningful curriculum by:

- planning learning experiences based on standards
- emphasizing the learning process
- integrating learning experiences using in-depth themes, studies, and projects
- ensuring materials and centers support learning in all content areas
- drawing on children's interest and experience to ensure culturally responsive curriculum
- promoting active communication between and among children as well as adults
- inviting children's input in lesson planning, projects, materials needed, and direction
- using a variety of instructional strategies
- being present with intentionality
- organizing flexible learning groups based on interest and abilities

English Language Arts: Early Literacy

As early childhood is the period of the most rapid language development (Morrow, 2007), it is essential that young children have a variety of appropriate literacy and language experiences infused throughout the day, in environments that are rich in language and purposeful print. Preschool teachers are charged with understanding language and literacy development and promoting each child's literacy potential. Your intentional interactions with individual children are the key to fostering literacy development throughout every day.

English Language Arts in preschool is composed of emergent reading, emergent writing, listening and speaking, foundational skills, and language (NJDOE, 2014). Literacy learning begins at birth and can be encouraged through participation in meaningful conversation and activities with adults (Morrow. 2015; National Early Literacy Panel, 2008). These literacy behaviors grow and eventually becomes habits. Children's interest and motivation to read is apparent before they can read. Emergent reading and emergent writing behaviors flourish in settings where literacy experiences are consistently encouraged and fostered, and meaningfully integrated throughout the day (Strickland, 2010).

Vocabulary

Oral language is the foundation of early literacy (Dickerson & Tabors, 2002).

Vocabulary is an essential part of learning to read fluently as well as learning complex concepts. Research has consistently confirmed that the number of words a child knows is a strong predictor of reading success (National Early Literacy Panel, 2008). If we're going to help children build rich vocabularies, we must use lots of interesting words with them (Collins, 2014). Listen in as Ms. Tyshawn uses interesting vocabulary in these two vignettes.

During choice time, Ms. Tyshawn notices 3-year-old Marcus standing by the window staring at the rain.

Ms. Tyshawn: What are you looking at Marcus?

Marcus: It just keeps raining!

Ms. Tyshawn: I'd say it's pouring hard. We'd get soaked if we were outside!

Marcus: Mommy said raining cats and dogs this morning. Cats and dogs no wanna be outside in rain.

Ms. Tyshawn (smiling): Yes, the cats and dogs don't like to get soaked. They'd be sopping wet; they'd be drenched.

Marcus: I'm going to the water table.

Ms. Tyshawn: Remember to put on a smock. M: So I no get drenched.

Ms. Tyshawn: That's right, so your clothes don't get soaked.

Ms. Tyshawn overhears Marcus tell Lydia at the water table to push up her sleeves so "she don't get soaked".

Ms. Tyshawn moves to dramatic play. Emily and Lydia are getting dressed-up fancy with scarves, bracelets, crowns, etc.

Ms. Tyshawn: My, my, are you going to a celebration? You have so many accessories!

Emily: No, we're getting dressed for a birthday party.

Ms. Tyshawn: A birthday party is a celebration because you celebrate the birthday. For a celebration people often get fancy and you have so many accessories.

Lydia: What's accessories?

Ms. Tyshawn: Accessories are things people add to go with their outfit. (Pointing or touching each) Like you have a silk scarf, necklaces, pendants, bangles, high heels, purses, and a tiara on. Jayden enters the dramatic play area.

Lydia: Hurry Jayden, get some accessories, we're going to a birthday party.

Emily: Here's some bangles you can put on.

Ms. Tyshawn: Have fun at your celebration!

By introducing interesting words in context, and defining or making the meaning clear, Ms. Tyshawn is intentionally expanding vocabulary in children's play. The variety of language that children experience, as well as the quantity, matters. "By adding fanciful language to daily routines and conversations, teachers can help expand their thinking skills, vocabulary, and creativity as they describe the world in new ways" (Seplocha & Strasser, 2009, p. 4).

Teachers can incorporate fanciful language in many ways:

- Look for opportunities to use new and fancy words all day, every day including routines (e.g. meal times: aroma, protein, platter, entrée, condiment; gross motor: height, mulch, muscles, powerful; sway; toileting: sanitize, tap water, between, personal, rinse; transition; rest time: relax, rejuvenate, unwind, calm, snooze).
- Investigate and plan content appropriate vocabulary for studies, projects and themes. Brainstorm words linked to the topic before you introduce it (e.g. in a unit of study on flowers: bulbs, petals, stems, seedlings, arrangement; family: relatives, siblings, genes, eldest, portrait; bread: dough, knead, yeast, crustless, grain).
- Brainstorm words as a team for each center. Many teachers write these words on newsprint to hang up high on walls to remind adults of interesting words to use (e.g. dramatic play: utensil, crock pot, costume, sauté, sous chef, ingredients, spatula, cutlery; blocks: perpendicular, foundation, structure, unit, parallel, excavate, architect; sand table: build, bury, scoop, texture, mold, half-full).
- Add-on to children's talk using descriptive words, synonyms, and antonyms (e.g. "Yes, I see you got new sneakers. They have ridges to give you traction with the Nike logo on the side". "So that's a picture you drew of your family. How many relatives do you have?" "Your building is sturdy, not unstable. It won't fall down."
- Describe children's actions using higher level verbs and adverbs (e.g." You really persevered with that puzzle"; "You cleaned up swiftly"; "I notice you landscaped your house with shrubs").
- Use new descriptive words to describe your own actions (e.g. "I need to sanitize the sink"; "I'm sorry I was distracted"; "I'm feeling energetic"; "I'm writing anecdotes down so I remember what you did today"; "I'd going to outline your body"; "I will investigate").
- Talk with children and extend conversations for the child to practice language and new vocabulary. Help children to make comparisons (e.g. "this feels hard, but this feels soft"; "let's sing the song loudly, now let's sing it softly"; "this bucket is full, but this bucket is half-full").
- Read, read, read to children because most vocabulary acquisition is intentional and incidental. Introduce new words before reading a story and revisit them during or after the story. Deliberately use new words from storybooks read beyond book reading times. The more often young children hear a word in different contexts, the more likely they will understand its meaning and begin using it.

Phonological Awareness and Phonemic Awareness

Phonological awareness and phonemic awareness are necessary skills to learn to read. Phonological awareness is hearing the sounds in spoken language. It encompasses detecting and manipulating larger parts of words, such as whole words, syllables and word chunks (Morrow, 2015). It is a listening skill.

A child with phonological awareness can:

- identify and make oral rhymes (e.g. dip, sip, lip, glip or mat, sat, fat, hat)
- hear, identify, and play with the sounds in words (e.g. sun, sit, and song all begin with "sss" sound write, pet, and hit all end with "ttt" sound; rust, rag, rat, and star: which word doesn't fit and why) and
- hear the syllables in words (e.g. clap for each sound in name Les-ley; snap for each sound in um-brell-a)

Phonemic awareness is part of phonological awareness but is a different skill. However, it is also a listening skill. Phonemic awareness means understanding that words are made up of individual speech sounds (Morrow, 2015; Schickedanz & Collins, 2013). Each individual sound in spoken words is called a *phoneme*. There are 44 phonemes in the English language. Children need to hear the individual sounds in words before they can learn to read print. A child with phonemic awareness can hear, identify, and work with individual sounds (phonemes) in spoken words. For example, "bug" has three sounds (/b/ /u/ and /g/); add the /m/ sound to "ate" to make "mate;" and take away the /t/ sound from "train" and get "rain." Phonemes are sounds, not letters. This is different from phonics. Phonics is a *print skill*. It means associating the letter symbol with the sound it makes (Morrow, 2015).

Phonemic awareness is an important step towards learning the *alphabetic principle*. The alphabetic principle is understanding that words are composed of letters, and each letter or combination of letters (i.e., th or ch) in a printed word is connected to a spoken sound. While many preschool teachers focus on naming the letters of the alphabet and singing the alphabet song, young children don't learn letters in isolation and letter names need to be associated with the sounds they make.

To support phonological awareness and phonemic awareness, preschool teachers:

- use songs, rhyming games, nursery rhymes, and rhyming poetry.
- play syllable clapping games or use rhythm sticks to change it up.
- play games with the sounds in words (e.g., group objects by their beginning sounds, which word doesn't fit; use alliteration with children's names silly Sally, happy Harry).
- talk with children about words and sounds and letter sounds in everyday situations (e.g., "We're having bananas for lunch today. Banana begins with a B, buh, buh, buh. Bethany's name starts with a B, buh. Who else's name starts with B?"
- choose books to read aloud that focus on sounds (rhymes, alliteration, onomatopoeia);
- play games that ask children to listen for beginning and ending sounds (e.g., If your name begins with the same sound as Ryan's, you may line up to go outside; Let's find all the things in our classroom that begin with the same sound as "soup")
- play "What's Left When We…" (e.g., "What's left when we take the 'sss' away from "smile"? What's left when we take the "nnn" away from "moon")

- play games where children segment and blend the sounds in words (e.g., /st/ + op is stop or stop without the /st/ would be op; /ch/ + air is chair or chair without the /ch/would be air).

Print Concepts and Writing

Piaget and Cook (1952) explain that children are curious about the world and acting on it is how they come to know and understand. Just as they learn about oral language by exploring through listening and talking, children learn about writing by exploring through observing and writing. Children *act on* written language, discovering its *forms, functions* and *features***.** As with all objects of knowledge, experience proceeds meaning. The more hands-on experiences children have with written language, the more opportunities they will have to make meaning of writing and reading. When children develop print awareness and grasp the concepts of print, children begin to understand what print looks like, how it works, and the fact that it carries meaning.

Owocki (1999) explains *Print Concepts* as follows:

- print carries meaning
- print is a close representation of objects
- written messages must correspond with oral language
- written symbols have conditions that make them interpretable
- letters and words are written in linear fashion
- written language is predictable
- there is a relationship between letter patterns and sound patterns
- words have boundaries

Providing literacy materials and intentional teacher support encourages children to explore literacy and learn that print means something and takes different forms. When a child sees a sign next to the toilet that says, “Please flush” with a picture of a child flushing the toilet, this not only helps the child to learn to flush, but also reinforces that print has meaning. The print you include in the classroom should contain a simple, clear message or meaning. Print should capture children’s attention so make it large, attractive, and eye-catching, and of course, at children’s eye level.

Look for opportunities throughout the day to call attention to the functions and features of print. This isn’t about rote or drill.

Using print involves preschool teachers being natural and intentional as they use moments to foster children’s discoveries about print:

- **Capital and lower case:** Except when all capital letters are used for emphasis, apply conventional rules of capitalization in all the print you write to model correctly what print looks like; as we want preschoolers to gain confidence in writing by feeling writing, rules should not be applied or expected in their writing.

- **Word spacing and directionality:** For example, a teacher might say, "I have to leave a space between these words because that's what you do when you write" or "Why do you think there are spaces between the words on this page?" or a teacher using her finger to track print from left to right as she reads morning message or a book.

- **Punctuation:** Use it and notice it. For example, *Don't Let the Pigeon Drive the Bus* is filled with punctuation to comment about and invite children to think about why. In small group activity, inviting the child to contribute to a class thank note, "I need to put a period at the end, because it's a sentence."

- **Call attention to letters and words:** On a walk in the neighborhood, "Let's look for letters that are in your name. I spy a "J" for Jacob on the license plate on that blue car" or when taking a child's dictation about their art, "The words say what you said 'This is my house. Mommy, Sitto Alya, Mohammed and me.' Which one is Sitto Alya?... Who is she? Are there any other words you want me to write about your picture?"

- **Recognize form or features based on function of print:** In dramatic play, "When you make a shopping list, most people write the words under one another" or "This must be Park St. because that's what the sign up there says."

Children want to write as they see adults all around them writing. Young children's first attempts at writing often relate to their name. However, before random scribbles become writing, and for children to write more than their name, preschoolers need to understand why adults write and how writing is meaningful to them. Thus, for children, writing must have a purpose. They need a reason to write. Owocki (1999) identifies four major functions of writing. Incorporate these functions in small group activities, morning meetings, and in intentional interactions as children play.

Ensure that children have writing materials appropriate to the function(s) of writing applicable to the primary function of the learning center:

- **Environmental:** street signs, road signs, store signs, schedules, bills, food cartons, emergency information, price tags, coupons, labels
- **Occupational:** menus, order pads, signs, money, appointment books, reference materials, plan books, check books, journals, blueprints
- **Informational:** calendar (dramatic play center), clocks, diagrams, newspapers, phone books, non-fictional books, message pads, maps, personal dictionaries

- **Recreational:** magazines, storybooks, poems, travel books, birthday cards, thank you notes, letters, postcards

As children go through stages of writing development (Morrow, 2015; Schickedanz & Collins, 2013; Pinnell & Fountas, 2011), from scribbles to drawing to scribble writing to letter like forms and individual letters to letter strings, they are making discoveries about what writing is and how to do it. Invented spelling emerges as they start to make connections between a letter and its sounds. Letters and sounds should be supported in context, not in isolation but in ways that have meaning to the child. When using invented spelling, children feel comfortable about writing more. Preschool is not the time to worry about conventional spelling. As preschoolers are gaining experience and knowledge about writing, corrections and drills dampen their enthusiasm, initiation, and confidence as writers. Celebrate writing in all its attempts though all stages. Spelling progresses as children gain more letter–sound relationships and write words important to them. Developing skill in writing takes years.

In preschool, our goal is to give children many and varied experiences with print concepts and writing.

- **Establish a literacy-rich learning classroom.** A literacy-rich play atmosphere is one in which teachers and children use written language, as it is needed, *to serve real-life functions* in play. Unless children see that writing serves a purpose, they will have little reason to write. Your role is to support and extend their spontaneous uses of written language and to model and demonstrate its many meaningful functions.
- **Establish a print-rich learning environment.** A print-rich environment means that there is liberal inclusion of print that has meaning for children and the **print serves a purpose.** Signs, labeled materials/shelves, wall stories, labeled displays, labeled murals, classroom charts, and poems are just a few ways to display print. This does not mean putting labels on everything in sight such as door, window, tables, etc. nor does it mean papering the walls with words.
- **Establish a classroom writing center.** Typically includes items such as various types, colors, and sizes of paper, markers, crayons, pencils, colored pencils, stapler, hole punch, tape, blank books, envelopes, cards, stencils, word files, note books, clip boards, post-its, name cards, stationery, books, etc.
- **Provide varied writing materials in centers.** Each center should have varied materials to write with and on. Consider what children do in that center, and what purposes writing can serve
- **Introduce literacy props to all centers/areas.** Observe children's play themes and talk with family members about where children have been and had experience with. For example, most children have been to the grocery store, so it makes sense to provide literacy props to support that play. On the other hand, not all children have been to an airport, so their play and experience will be limited unless you take the children for a visit. Knowledge for young children is context-bound.
- **Look for openings to encourage writing for purpose.** Opportunities are plentiful and occur throughout the daily routine and through intentional interactions. Have children sign-in upon arrival. Use turn lists for computers, tablets, and popular centers/materials. Invite children to write signs for the classroom. During conversations while children play, say things like: "The (play) phone is ringing but Ahmed is making me lunch. Can you answer it and write me a message on a post-it so

that I can remember to call back?" "Janelle, Marcus is speeding on the tricycle, here's a card and a pen; do you want to write him a ticket?" "Ms. Tara is out sick today. Let me know if you want to write her a get-well card at the writing center and I will help you." "Tell me about your block building. I will write it down."

- **Use intentional strategies to support print concepts and writing.** Encourage children to write in their own way. Invite children to write or dictate stories. Encourage children to write to one another. Accept children's additions to your writing. Display and send home samples of children's writings. Listen to children "read" their writing. Make encouraging and specific comments. Model the usefulness of writing. Make explicit your strategies while writing. Notice environmental print. Provide opportunities and materials for book making. Relate meaningful writing experiences to projects/themes
- **Observe and document writing attempts.** Anticipate various emergent forms of writing. Carefully observe and discuss children's thinking about writing. Maintain ongoing anecdotal notes and examples of each child's writing and reflect on these to individualize your support and interactions. What does this child know about writing? What writing is this child doing? What skill(s) and concepts are they using? What scaffolds are they ready for?

Reading to Children and Comprehension

Reading aloud a good book is magical, nurturing, and educative and a more than once daily activity in all good preschool classrooms. Good books rest in your memory and bring smiles of remembrance. High quality children's books begin with enjoyment and provide support for emergent reading. High quality books can increase vocabulary, comprehension, and thinking skills, develop insight, build self-image and/or transmit social values. Schickedanz and Collins (2013) state "The most important goal when children listen to a story is to comprehend it" (p. 52).

Reading to young children supports many aspects of literacy develops background knowledge; builds vocabulary; increases familiarity with language patterns; develops familiarity with story structure; develops print awareness; models' fluency and appropriate emotion; and helps to view reading as pleasurable (Morrow, 2015; Schickedanz & Collins, 2013).

In selecting high-quality stories, teachers choose books appropriate for their specific group of children, based on ages/development of the group, and interests. For example, a more complex story (e.g. *Knuffle Bunny* by Mo Willems) may be more appropriate to 4-year-olds.

Schickedanz and Collins (2013) recommend using the following criteria to choose books:

- complexity and its potential interest to young children
- a richness of a book's language
- values it conveys, and the extent to which it represents diversity
- appropriateness of a storybook's illustrations and size

In addition, books should always be in good condition, attractively arranged in a library interest center, accessible to children, and include varied topics and genres. “Inappropriate books contain topics and illustrations that are frightening, show violence, or give negative social messages, such as a biased point of view or using aggression to solve problems” (Harms, Clifford, & Cryer, 2015).

Read-alouds should always be planned. Books should be previewed. Always hold the book so children can see the pictures. The first read of a picture book should always be an uninterrupted reading of the text so children can hear and follow the story as intended (Seplocha, 2017). Subsequent readings can include picture walks, pausing to ask questions, book discussions, child action during the read, retelling, flannel boards and other storytelling techniques, and follow-up activity in centers or small group. Reading the same story over again supports moving from lower level to higher level thinking (Schickedanz & Collins; Seplocha, 2017).

Effective preschool teachers read good books to one child, as well as to small or whole groups (Harms, Clifford, & Cryer, 2015). Sharing a book with one child individually affords the child a warm and personalized one-on-one opportunity with the adult scaffolding the child based on the child’s interests and abilities.

As Mr. Mike passes the library center, Sivan asks, “Will you read this to me?” Mike responds “I know you love that Fancy Nancy book with all those fancy words; yes, I’ll read it.” Sitting down comfortably next to Sivan, Mr. Mike reads the title, author, and illustrator and begins to read. He knows that Sivan knows the story and has heard it many times, so he pauses on select pages and asks text-to-self questions to support comprehension and higher-level thinking, such as “Do you have a favorite doll? Why is she your favorite?” “What accessories do you have at home?” “Tell me about a time when you told your mommy, I love you.” At the end of the discussion, Sivan asks, “Will you read me another?” Mr. Mike replies, “I am going to go see what is happening in art; do you want to come with me or maybe stay and read a story to the teddy bear?” Sivan sets up the teddy and begins ‘reading’ by using the pictures to tell the story to the bear. As Mr. Mike leaves the area, he jots an anecdote on a post-it he always has in varied spots in the classroom.

Reading to a small group of children provides mini-lesson opportunities for small group book discussions. Small groups allow for richer discussion as there are fewer children, so all can be involved. Small groups may be planned to target specific skills and/or knowledge or be unplanned during free play when reading to 2-3 students to pick up on a teachable moment.

Ms. Emily noticed that the cans, boxes, fruits are all in disarray in the grocery store she has set up in dramatic play. She chooses to read *Rappy Goes to the Supermarket* (Gutman, 2017), noting the book also includes lots of rhyming. She wants to encourage children to make signs for the grocery store set up in dramatic play. After reading the story, she returns to select pictures in the text and asks children what they notice.

Reading to whole group often presents challenges of classroom management, and limits discussion to only a few who can comment or respond to questions. It is difficult to keep 15 children engaged while listening to a book. It is necessary therefore to use voices, gestures, props or pacing relevant to the story or to involve the children while reading.

Mr. Frank has selected *Pepito the Brave* (Beck, 2001), a delightful short book perfect for his three-year-old children. He read this to the children earlier in the week for a first read, introducing the book, author, illustrator, and character. "The main character in this book is Pepito; there are other characters we'll meet as we read the story". He continues "The story is about Pepito and his leaving his nest, but he doesn't know how to fly yet. I wonder what brave means". Pausing to listen to a few children's responses, he says, "Let's see what Pepito does and why he is brave". He reads the story without interruption using a different voice for each character that Pepito encounters. After the story, Mr. Frank and the children review the different ways Pepito moved before he flew. In his next read of the book, later in the week, as he reads the story, he pauses at the varying characters, and invites three children to demonstrate hopping, swimming, and burrowing like Pepito.

One of the oldest findings in educational research is the strong relationship between vocabulary knowledge and reading comprehension (Stahl, 1999, p. 3).

Comprehension is necessary for children to become successful readers. It is an active process meaning that the young child interprets and constructs meaning about what is being read based on prior knowledge and experience (Morrow, 2015).

Effective approaches to support comprehension include:

- directed listening-thinking or reading-thinking activities
- preparing to read discussion
- discussion during reading
- discussion after reading
- K-W-L (What do we Know; What do we Want to know; What did we Learn)
- shared book reading and repeated story reading
- story retelling
- dramatizing story
- webbing or mapping a story
- buddy or partner reading
- think, pair, share
- follow-up in centers with props or materials from stories

Summary

It is essential that the literacy component of a preschool program provide children with opportunities for emergent reading, emergent writing, listening and speaking, foundational skills, and language in English and in the child's primary language, if other than English. Children with special needs and children from language backgrounds other than English will develop literacy in inclusive preschool programs that provide enriched environments and foster opportunities for social interaction with other children and teachers (See sections on children with special needs and supporting DLLs). Literacy and language should be infused throughout the day and incorporated in multiple ways throughout the daily routine, environment, interactions, and activities.

Mathematics

Past research has indicated that young children have the interest and ability to engage in mathematical thinking and learning (Charlesworth, 2015; Ginsburg & Opper, 1987; Ginsburg, Klein, & Starkey, 1998; Starkey & Klein, 2007; McDevitt & Ormrod, 2015). With natural curiosity and eagerness for learning, they construct an informal knowledge of mathematics through interaction with materials, peers, and supportive adults in their daily lives. As a result, preschoolers begin to name numerals, count objects, compare the size or quantity of objects, order objects or sequence familiar events, recognize basic shapes, make graphs with data collected from their experiences and investigations, classify objects with a purpose, recognize simple patterns, and use basic words for comparison, positions, directions, sequence, shapes, time, and numbers. In addition, preschool teachers can encourage children to solve simple problems from daily life by applying their current mathematical knowledge and skills.

Young children's informal knowledge of mathematics and early mathematical process skills become formal knowledge and logical process skills as they encounter ample opportunities to practice and reflect upon them. Therefore, preschool teachers should provide young children with an environment where they can have a wide variety of spontaneous and planned explorations of their surroundings and problem solving. With understanding of young children's prior mathematical knowledge, preschool teachers also should be able to intentionally plan learning experiences of mathematics through integrating mathematics into daily routines and across curriculum content areas. Furthermore, teachers should provide young children with engaging teacher-guided experiences accompanying appropriate questions, to supplement their own explorations and constructions of mathematics (Charlesworth, 2015; Epstein, 2014; Erikson Institute, 2014; Ginsburg, Klein, & Starkey, 1998; Starkey & Klein, 2007; Van de Walle, Karp, & Bay-Williams, 2016). It is also often true that teachers need to expand their own math knowledge and interest to be effective teachers of mathematical concepts and skills. If you think you aren't "good" at math, it's important to learn and understand more math to be an effective preschool teacher and move beyond simple counting and basic shape recognition. Math is so much more.

Number and Number Sense

Santiago drew a birthday cake with 4 candles on it. Ms. Kay, Santiago's teacher at his preschool, asked him, “Can you count the candles on the cake, Santiago?” Santiago pointed and counted the candles one by one, “1, 2, 3, 4. Four candles!” “There are four candles. You counted them one by one by pointing to each candle! Can you show me the same number with your fingers?” said Ms. Kay. Santiago held up 4 fingers.

Number sense means “a good intuition about numbers and their relationships” (Howden, 1989, p. 11). Children with number sense can think about different quantities and understand and use numbers; moreover, they can understand and use relationships among numbers in flexible ways in order to make mathematical judgments (Howden, 1989; Van de Walle et al., 2016). Most young children, however, confuse different ways that numerals are used, such as numbers used to describe quantity or numbers used to indicate objects. In addition, they are not able yet to make the connection between quantities and counting. Number sense begins to develop during early childhood and progresses gradually as young children (1) explore and experience numbers with concrete materials in a variety of contexts, (2) solve problems in daily life using different methods and discuss their ideas with others, and (3) collect, organize and interpret information related to quantities in their experiences. Development of number sense can be assessed by noting young children’s answers to the questions on structured math questions and observing their actions and conversations in daily routine and free play (Charlesworth, 2015; Epstein, 2014; Erikson Institute, 2014; Van de Walle et al., 2016).

Experiences for developing number sense:

- Provide experiences with different uses of numerals such as categorical numbers (classroom numbers, numbers in address, etc.), referential use of numbers (numbers on the clock), and ordinal numbers (numbers that refer to position in a sequence).
- Offer experiences with cardinal numbers (numbers represent the quantity of a set).
- Look at a small number of objects, usually three to five, and instantly recognize ‘how many’ without counting (Charlesworth, 2015; Erikson Institute, 2014; Van de Walle et al., 2016).
- Count objects forward and backward in sequence with understanding that the number names are always used in the same order (four always comes after three and before five).
- Recognize numerals and their names in environments.
- Compare the quantity of sets through one to one correspondence and use comparative languages (more, less, most, least, equal, etc.) appropriately.
- Begin to count by (1) matching one number name to one object without repeating or skipping, (2) understanding the last number name of the objects in a set represents the total quantity of the set, and (3) understanding numeric relationship (6 is 2 more than 4 and 2 less than 8) (Kamii, 1978; Van de Walle et al., 2016).

- Classify objects and people into sets by concrete attributes and divide sets of objects and people into smaller sets.
- Solve simple addition and subtraction problems not by using numerals or other written symbols, but by using number stories and/or manipulating objects or pictures in play or real life.

Geometry and Spatial Relations

Even before young children can describe shapes in language, they identify different shapes in their daily lives. They also experience relative positions and directions in space and can understand the language representing them. Recognizing names of basic shapes, comparing or classifying two- and three-dimensional shapes by concrete attributes (color or size), and describing and interpreting simple spatial relations during early childhood are fundamental for developing complex concepts in geometry. Assessing development of concepts and skills in geometry and spatial relations includes observation of young children's responses and performances on the related tasks (Charlesworth, 2015; Epstein, 2014; Erikson Institute, 2014; Van de Walle et al., 2016).

Experiences for developing concepts and skills in geometry and spatial relations:

- Name, explore, and experience various kinds of two-dimensional shapes (triangle, rectangle, circle, square, and three-dimensional shapes (pyramid, sphere, cylinder, cone, cube), and connect them to objects in real life (a book, clock, blocks, ball, tower, birthday hat, box).
- Recognize and describe basic characteristics of and their relationships between two- and three-dimensional shapes (line, angle).
- Compare, order, match, and classify different shapes according to concrete attributes.
- Represent shapes in drawings and crafts or make new shapes by combining and separating shapes.
- Recognize relative positions and directions in space and interpret and use the words representing them.
- Recognize characteristics of various spaces (open space, enclosed space, whole space, part of space, dividing space, and making space) in their environment.
- Represent spatial relations in drawings (above, below, next to, behind, etc.).

Measurement

Ms. Jane, a preschool teacher, was observing Caleb playing at the sand table, stocked with different sizes of scoopers, measuring cups, and containers. Caleb was filling a small basket with sand using a coffee scooper. After a while, he stopped filling the basket, looked at different scoopers, picked a laundry scooper, and continued filling the basket. Ms. Jane casually asked him, "Caleb, why do you use the laundry scooper instead of the coffee scooper?" Caleb said, "This (the laundry scooper) is bigger, and this has more sand." Ms. Jane repeated, "Wow, you are using the laundry scooper because it is bigger and can hold more sand in it." She also asked him, "Why is it good to use the bigger one?" Caleb

answered, “Because I can move sand faster.” "What a great idea! You can fill your basket faster because you are using a bigger scooper!” said Ms. Jane.

Measurement is the process to describe certain attributes quantitatively by assigning a numerical value (Bredekamp, 2016; Erikson Institute, 2014; Van de Walle et al., 2016). Older children can measure the length, weight, and volume of objects using numbers with a standard unit assigned to them (inch, pound, and gallon). However, young children, whose cognitive processes are guided by what they see, measure objects by estimating the difference by seeing or lifting the objects, making a direct comparison of the objects (comparing objects by placing them next to each other and/or against to each other), or ordering them (placing objects in a sequence from smallest to biggest).

These abilities are foundational for more sophisticated measurement, such as measuring objects with standard units and non-standard units. The concept of standard unit is fundamental to all mathematical understanding, especially the base-10 system. Development of concepts in measurement can be assessed through observing young children’s actions for handling measurement tools and listening to their conversations that involve measurement vocabulary (Charlesworth, 2015; Epstein, 2014; Erikson Institute, 2014; Van de Walle et al., 2016).

Experiences for developing mathematical concepts and skills in measurement:

- Play with measuring tools such as measuring cups and spoons, rulers, scales, etc.
- Measure different objects in real life by estimation, direct comparison, and ordering them according to concrete attributes (length, height, width, depth, thickness, weight, size, volume, etc.).
- Measure different dimensions of a single object (how long, how tall, how wide, how deep, how thick, how heavy, how big, how much, how dark) by estimation, direct comparison, and ordering them.
- Observe models of measuring various objects with various measuring tools including non-standard and standard units, using proper comparison words, and solving problems by measuring objects.

Mathematical Practice Skills

Promoting development of mathematical practice skills is one of the essential goals of mathematics education during early childhood. This is because early experiences of those skills will lay the solid foundation for young children’s mathematical exploration and inquiry, making mathematical judgments, and effective communication of mathematical ideas with others and mathematical justification of their thoughts.

The mathematical practice skills (Bredekamp, 2016; Charlesworth, 2015; Epstein, 2014; Van de Walle et al., 2016) include the following:

- Problem solving: Solving problems on their own

- Reasoning: Thinking in logical ways (identifying regularity in simple patterns and relationships between a whole and parts)
- Communicating: Expressing and sharing mathematical thinking and solutions with others, including mathematical vocabulary
- Making connections: "Understanding links between different areas of mathematics, as well as connecting math concepts to real-world problems" (Bredekamp, 2016, p. 427)
- Designing and analyzing representations: Representing mathematical ideas in various ways (using real objects, fingers, pictures, symbols, marks, and/or numerals) and interpreting them (understanding the meaning of various representations)

Young children can build and exercise the process skills through any content area of mathematics. In other words, mathematical process skills can be developed when they are intertwined in the teaching of all mathematical content areas (e.g. young children develop problem solving skills when classifying objects by their shapes). Assessing mathematical practice skills includes continuous observation of children's use of mathematical process skills in various informal and formal situations (Bredekamp, 2016; Erikson Institute, 2014; Van de Walle et al., 2016).

Possible experiences for developing mathematical process skills:

- solve various problems they encounter in their daily routines, play activities, and the stories they read from books through their own explorations and inquiries
- try various strategies, either the correct or the incorrect, in an atmosphere in which mistakes are accepted
- describe and explain their ideas to others orally using mathematical vocabularies or in other ways such as drawing
- reflect on their mathematical ideas based on guides or feedback provided by the teacher
- play with various materials to identify, repeat, and extend simple patterns and understand relationships between a whole and parts
- use concrete materials to represent the mathematical ideas and discuss the representations

Math All Day, Every Day

Young children learn math with understanding and enthusiasm in familiar and meaningful settings such as daily routines, play in centers, games, real life related learning activities, teacher-planned instruction, etc. In addition, they construct mathematical concepts and skills not only through structured activities, but also through daily routines and free play.

Sample:

- Arrival and Morning Meeting: Counting; classifying; using numbers in morning message; doing simple addition or subtraction using number stories (6 girls + 7 boys = 13 children in school today);

sequencing events; using ordinal numbers; recognizing patterns; and using math language

- Snack Time: Making one-to-one correspondences; matching; recognizing shapes; classifying; counting; making comparisons; recognizing patterns; and using math language
- Toileting: Using ordinal numbers (1st we turn on the water….); classifying; counting to 20 while washing hands
- Line-Up: Classifying; counting; using one-to-one correspondence; making comparisons; ordering; recognizing spatial relations; and using math language
- Play in Centers and Outdoor: Matching; classifying; making comparisons; ordering, counting; making one to one correspondence; recognizing spatial relations, directions, and distance; and using math language
- Small groups: Planned mathematical experiences to introduce and support children's growing mathematical knowledge and understanding.
- Dismissal: Sequencing events; classifying; and using math language

Summary

To plan and implement mathematics education, preschool teachers should first have a clear idea of what content needs to be taught, and then develop and provide relevant experiences for learning. They should also prepare their classrooms with a variety of developmentally appropriate materials to facilitate young children's spontaneous exploration, construction, and problem solving for mathematical purposes. Furthermore, it is critical for teachers to be prepared to ask genuine questions to each child at the appropriate times throughout daily activities. Most importantly, early childhood teachers should encourage young children to learn and use mathematics in their daily life by acknowledging and supporting their trial and error, mathematical inquiry, and discussions about the processes.

The Arts

All young children are natural artists as they investigate line, shape, color, texture, form, movement, melody, rhythm, and pattern (Koster, 2012). When we refer to the arts in the early childhood years, we include the Visual Arts (i.e. drawing, painting, collage, printing, mural making, sculpting), Music, and the Performing Arts (i.e. dramatic play, storytelling, dance, singing, playing simple instruments, improvisation, creative movement). The arts should be included in the everyday life of the preschool child, not only in Art Area, Dramatic Play Center, and Music Area, but in the other centers, routines, transitions, and integrated into the curriculum (Copple, Bredekamp, Koralek, & Charner, 2013).

Process vs. Product

For the preschool child, the emphasis is always on the creative *process*, not the finished *product*. However, teachers also need to help children acquire varied art techniques as well as respect their product (Copple, Bredekamp, Koralek, & Charner, 2013). Teachers offer opportunities for preschoolers to engage in open-ended creative experiences rather than art projects that all look the same, such as

tracing hands to look like turkeys or gluing eyes and mouths on pre-cut pumpkins. Any type of coloring pages gives children a message that they are *not* artists but must follow an adult model.

Children should have access to a variety of materials, experiment with glue and collage materials, choose from different sizes and types of papers, find markers and crayons in a range of colors and skin tones, and paint with various types of paint brushes. Teachers hang up work at children's eye level, inviting the child to choose where to display it. Art can also be hung at adult levels for parents to see in hallways and/or select classroom areas. Make simple frames by mounting their work on poster board or cardboard cut around 3" wider than their creations or visit framing stores and ask for mat board scraps that they throw away. Adults don't write on children's art but do document what they say about their creations on note cards or post-its. This not only lets children know that what they say is important but helps the adults who view the art understand the children's creative process.

Teachers should rotate materials, make sure to have smocks with long sleeves (recycled adult button-down shirts work well), limit the number of participants, and provide supervision to scaffold learning and make clean-up time a learning experience by involving children. Encourage them to revisit their creations in case they want to expand or change something (Copple, Bredekamp, Koralek, & Charner, 2013).

Model *how* to use materials, but never show children a model of what a finished piece should look like. Do show them how to dip a brush into a paint container and wipe off the excess paint and help them control the amount of glue they use by putting it into small plastic containers with sponge brushes or craft sticks as applicators. Set up primary paint colors, black and white, and encourage children to make new colors. Organize collage materials into clear containers according to color, shape, type, and change these often. Include natural materials like feathers and pebbles and recycled materials, like wood, empty paper towel rolls, and fabric scraps.

Development and Learning in the Visual Arts

Typically, three-year-old's are not yet interested in drawing, painting, or sculpting representational objects, such as a dog or a house. They are still in the stage of exploring the paint, markers, or clay. They engage in scribbling and making random marks on paper (Koster, 2012).

Good questions to ask at this stage include:

- How did you make those lines (shapes, colors, etc.)?
- Is your picture just the way you want it or how are you going to add some other things to it?
- How did you get all those pieces on your sculpture to stick together?

As children approach 4 years of age, you may see them creating some more representational artworks (Koster, 2012).

Good questions to ask at this stage include:

- How do you think you will begin your family collage?

- What should we title our mural about our school?
- What type of artwork are you interested in creating for the cover of your "All About Me" book?

When teachers do have a theme in mind, they should make sure to permit children to choose *either* the materials, or the way they want to use them. If the teacher chooses *both* the theme and the materials, children don't have enough creative input. For example, if the class takes a fall walk, children could collect leaves, pinecones, and other signs of fall. Teachers might suggest that they use some of those materials to paint with or glue onto large mural paper as part of a collaborative artwork or make their own collage. However, some children might want to make a drawing or painting of signs of fall or tear out pictures from magazines and make a book about fall.

Displaying prints of famous artists with different styles show children that we all have our own way of expressing our artistic talent and that their pictures don't have to look like real photos. For example, Picasso used lots of blue, bold shapes sometimes, and Pollack splattered bold colors onto big canvases. Explain what it means to *sketch*. Then, bring a few clipboards and small pencils (or crayons) on walks and encourage children to make quick sketches of things they find interesting. Put flowers in a vase in the Art Area and invite children to paint or draw what they see in their own way.

Music and Movement

Preschoolers love to listen to and respond to all types of music and to move their bodies in many ways. They enjoy dancing, crawling, creeping, jumping, galloping, hopping, sliding, clapping, and using simple musical instruments (Edwards, 2013). Use songs that insert children's names, especially at the beginning of the year, such as *Willoughby, Wallaby, Woo*.

Begin and/or end morning meetings with a Good Morning song. Transition children from one activity to another with clean up songs, chants, echoing clapping patterns, and/or rhythms you create with simple instruments like maracas or drums. Vary the genres of music played during naptime and lunchtime and as background during Center Time. Try playing Saint Saens *Carnival of the Animals* or Prokofiev's *Peter & The Wolf*. These are symphonies that were written for children.

Children enjoy acting out stories that have lots of body movements like *We're Going on A Lion Hunt.* Teachers can encourage children to move their bodies in creative ways by asking questions like "How can we move like snakes (birds, fish, cats, etc.) to go to our mats for naptime?" Children can create new words for familiar songs like *The Wheels on the Bus* by changing the focus of the song to pets, body parts, etc., for example, "The eyes on my face go blink, blink, blink..."

Suggestions for Integrating the Arts into the Curriculum and the Broader Community:

- affix full body photos of the children to rectangular blocks in the block area to encourage creative play (isbell & yoshizawa, 2016)
- suggest that children make props for their block buildings (such as trees, benches, signs) from materials in the art area

- expand science learning by integrating 3-dimensional constructions such as making birdhouses when learning about birds
- create teacher-made puppets of favorite stories (color photocopy the characters, laminate, and glue onto craft sticks) and/or suggest that children make their own puppets with recycled materials and cardboard shapes and put these into the library area to act out storybooks
- ask children to create placemats, menus, food, clothing, and other props for their dramatic play area
- invite local artists and musicians to visit the classroom and use some of their materials and instruments with the children
- encourage family members to share the music they love
- take trips to museums and musical performances that are developmentally appropriate for preschoolers

Science, Technology, Engineering, Art, and Math (STEAM) in Preschool

The idea of incorporating STEAM investigations into a meaningful curriculum framework is a natural fit with early childhood education. These type of STEAM investigations are easily developed and implemented when science, technology, engineering, art and math are woven into units of study within the context of authentic, everyday life experiences. The investigations should begin as provocations, (thought provoking), and should be designed to capture a child's interest. They should be motivating and engaging, sparking curiosity, and persistence. They require focus, risk taking, and problem-solving strategies.

As educators, our role is to build on their questions, inquisitiveness, curiosity and interests and to know when and how to scaffold their learning. It is about modeling and using STEAM language, sensory words and asking questions that lead to a deeper understanding of STEAM explorations.

An emphasis should be placed on both the selection of materials and the open-ended investigations (Englehart, et al., 2016). As children take on the role of protagonists (main characters) and become their own researchers they begin interacting and investigating with materials while showing signs of a growth mindset, expanded academic vocabularies, and the development of 21st century skills that build upon the 4 C's including creativity, critical thinking, communication, and collaboration (National Education Association, 2013). The outcome of these experiences reflects the children's interests, abilities, and questions. Consider the following vignette.

While riding the school bus for a field trip to the local library the children in Ms. Sylvia's class sings "the wheels on the bus go 'round and 'round, round and round, round and round, the wipers on the bus go swish, swish, swish all through the town." When the bus arrives, the children excitedly exit the bus, and are escorted inside the children's section. The librarian gathers the children together for story. He reads The Wheels on the Bus, and after the story, Jayden exclaims "but wait, I didn't hear our horn go beep, beep." Thinking for a moment, Carolyn answers, "and our bus was yellow, not blue like in the

book." Ms. Sylvia was writing the children's reactions to the story to use as a discussion starter when they return to their classroom. While waiting for the bus to arrive, Ms. Sylvia tells the children they are going to watch for the bus and notice if the wheels really do go 'round and 'round. The bus driver pulls up to the curb and honks his horn. Garrett exclaims, "wow the horn really does do beep, beep. Bus driver can you make the wipers go swish, swish, swish, and then can the lights go blink, blink, blink?" The bus driver plays along, and as each child enters the bus, he chants "move on back"! Taking her lead from the children, and building on the children's interest, Ms. Sylvia realizes that a new unit of study begins to emerge.

Let's explore how the vignette continues as a "***STEAM"*** study over the course of the month.

Science: Returning to the classroom building on children's interests, the children and Ms. Sylvia made a list of materials that they thought would function as wheels for the bus that they could build. Each time the children asked if she thought an object would work as wheels, she would respond that she didn't know either, and then asked what they needed to do to find out together? As the children investigated the behavior of the materials, they engaged in investigations that involved physics such as speed and force.

Technology: Ms. Sylvia uses the children's experience to introduce new technology and engineering skills into their everyday lives. Beginning the day with questions, "How might you design a bus?" or "What materials might you use to build a bus with a door that opens and closes and wheels that go around and around"? will spark the children's interests. The children are invited to use Ms. Sylvia's tablet to look at the photos she took of the bus that they rode to the library. During center time, many children begin to design and create buses.

Arts: Ms. Sylvia supported the children's idea of wanting to invite their families to hear them sing *The Wheels on the Bus*. She gathers the children together to brainstorm ideas about how they could carry out the performance. The children's list of ideas included building and painting a stage and having a videographer (one of the children) record them as they sing the song. Ms. Sylvia plays the recording for the children during morning meeting the following day.

Math: As an extension to their interest in buses, Ms. Sylvia reads *Don't Let the Pigeon Drive the Bus.* This sparks a new interest with the children. They decide that they want to make a bus big enough for all the children and the teachers in their classroom to ride. Some of the children begin to count the number of children and teachers in the room and begin making little squares on paper. Other children begin arranging chairs in a single row. Andreas states, "Hey wait a minute when I sat on the bus I sat next to Joseph, but I can't sit next to anyone. Something is not right." Andreas rearranges the chairs and asks everyone in the classroom to come sit on the bus. Ms. Sylvia then posed the question, "How can we be sure we have enough chairs for each child?" Working together, the children begin counting the children and then the chairs.

STEAM education is an integrated approach to curriculum. It requires intentional implementation of standards, assessments, lesson planning and implementation. As an outcome to teaching STEAM education, children have the potential to develop strong foundational skills necessary for 21st century learning, including habits of mind, a growth mindset, the knowledge and skills to be resourceful and

problem solve. Teaching children through a STEAM lens means that, as educators, we are intentional in the ways in which we embed high quality meaningful learning experiences across STEAM domains. The investigations are ones that support children's learning by integrating and connecting their everyday experiences in all areas of learning.

Science and Nature

The intent of science education in the early childhood classroom is to build on children's natural sense of wonder and curiosity. Children employ their five senses to develop an understanding of scientific principles through multisensory experiences and the teacher's use of open-ended questions. In the context of individualized play, children will explore, experiment, and learn new skills through trial and error and their own investigation and discovery. It is important that teachers are knowledgeable of basic science concepts. Preschool teachers need to be prepared and look for opportunities to explore concepts during the child's play in all content areas. Since children's play is an essential vehicle for use as an indicator of their growth and learning, play supports children's progress along the developmental sequence. Teachers should introduce science concepts during their interactions with materials, people, and everyday activities.

Science is first and foremost an attitude of curiosity. (Elkind, 1972, p. 9)

Young children have unlimited curiosity about their world. In some classrooms, science is relegated to a side table or window ledge, an afterthought. In some classrooms, science center materials don't change. A *Nature/Science Center* should be a place where children can explore, observe, hypothesize, investigate, experiment, poke and probe. Science is the process of finding out and a system for organizing and reporting discoveries. Thus, the center should incorporate space and materials where children can record their findings through drawings and print. The center should be structured so children can do investigations independently to discover and form science concepts. The materials should invite children to explore with all five senses. Children are often attracted to things with interesting textures, colors, smells, sparkles, sounds, or patterns (Curtis & Carter, 2015). Materials from nature are free and collectable. Recyclable and donated materials can also be gathered from families and community to add variety and focus. Inviting families to find and bring in three-five things in their home or yards that are shiny or transparent can be incorporated into a study on light. Materials should always be real. Thus, plastic bugs or dinosaurs are not considered to be science materials. The Nature/Science center should be a dynamic place of discovery, wonder and excitement.

Here are some ways to encourage an attitude of inquisitiveness:

- never refuse to respond to a question
- notice and comment on perceptiveness
- find out what the child is really asking
- ask what she thinks the answer is
- never answer a question the child could answer
- don't be afraid to admit you don't know the answer
- be a questioner and explorer yourself

- ask questions that help them pay attention to their environment
- share discoveries

Science is *not* a collection of gimmicks. It is real. It is about discovery. Science content in preschool includes Physical Science, Life Science and Earth Systems. New Jersey Preschool Teaching and Learning Standards (2014) for Science consist of developing inquiry skills, observing and investigating matter and energy, observing and investigating living things, observing and investigating the Earth, and using technology and tools. Science topics can serve as a springboard for projects and studies based on children's interests, resources, and materials.

Suggestions for topics:

- water
- motion & energy
- snow & ice
- drops & splashes
- dissolving
- structures & balance
- ramps & wheels
- I am a scientist
- sound & heat
- animals & habitats
- changes in matter
- light & shadows
- ants
- mirrors
- sunlight
- human body
- healthy bodies
- rocks
- plants & growing
- saving the earth

Technology and Engineering

When we hear or read the word technology we immediately think of digital interactive media and electronics. However, technology includes any type of simple machine including a hole punch, magnifiers, scissor, stapler, seesaw, scale, balance, winch, gears, and pulleys. These materials should be accessible in relevant learning centers to extend children's learning. Digital technology includes preschoolers manipulating iPads and other tablets, cameras, computers, Chrome books, whiteboards, etc.

Technology in preschool has been added to and expanded. Ten years ago, computers used to be a special that elementary children would attend once a week. "Today's children are growing up in a rapidly changing digital age that is far different from that of their parents and grandparents" (National Association for the Education of Young Children, 2012, p. 1). Now many individual classrooms have computers plus other forms of technology, such as digital whiteboards, laptops, tablets, etc. Not only has technology in schools increased but also in homes. Families have gone from televisions and radios to tablets, iPods, smartphones, etc. This generation depends on technology and uses it for our day-to-day functions.

The responsibility of the appropriate use of digital technology starts and ends with the teacher in the classroom. ECERS-3 (Harms, Clifford, & Cryer, 2015, p. 67) provides the following guidance for appropriate use of technology in preschool classrooms:

- all materials should be nonviolent, culturally sensitive and appropriate for young children
- tv/video should be limited to no more than ten minutes. other electronic media use should be limited to no more than fifteen minutes per child
- materials should encourage problem-solving rather than rote or random response and foster creativity or vigorous movement (exercise video)
- staff should be actively involved with children using electronic media (e.g. help a child learn to use an app or program, comment on child's creativity using a drawing program)
- electronic media materials should be used to support and extend classroom interests, studies, and activities

Technology may be effective when used to support a concept being taught in a different way. "For instance, while a teacher can show a child how to tie his shoe, a video allows the learner to play the demonstration again and keep trying until he masters the task" (An & Seplocha, 2010, p. 21). An and Seplocha imply that by using technology, in a meaningful way, a teacher may be reaching some children that could not understand the concept being taught through talking, reading, writing, or doing.

Engineering involves the design and architectural building process of a product. Engineering begins with a problem. As part of STEAM explorations, we should encourage children to act and think like engineers. Engineering isn't just building with blocks. It is using things to create something that does something or is used for something (Heroman, 2017). For example, in an investigation on shadows, it might be investigating what materials would work to create something to hold a flashlight to create a shadow of something that can be traced, so no one worries about holding the flashlight steady. When children have opportunities to design, create, construct, identify, fix and find new solutions to solve problems, they begin to build engineering habits of minds. Engineering challenges should be open-ended and often require children to work collaboratively to generate ideas and solve problems (Heroman, 2017).

Following Children's Interests

During a study on buildings in the community, Ms. Jordan takes small groups of children for a walk around the school's block to observe local architecture. As children walk, they notice carpenters building and installing wooden stairs to a neighborhood home. Children watch attentively and eagerly ask questions as to how the carpenters built the stairs. What tools did they use? What did they do first? Are the stairs heavy? After school, Ms. Jordan reflects on children's curiosity on how the stairs were built. Because of this, she decides to extend the current study on buildings in the community to explore woodworking. She begins by brainstorming ways she can expand on children's interests in meaningful, challenging, and developmentally appropriate ways. She also does a search and creates a list of children's literatures, related to the topic.

As depicted in the above vignette, Ms. Jordan notices children's interest in carpentry. Because of this, she decides to broaden children's thinking by planning an in-depth study to expand their play and understanding of the topic. The best investigation topics are those that stem from children's interests, ones they have prior knowledge to build on, topics that allow for daily inquiry and exploration, and subjects that can be explored over extended periods of time. Children develop a sense of purpose toward learning when teachers intentionally plan experiences that are meaningful to the children in their classrooms and provide connections to the real world.

Purposeful Planning

Planning in-depth integrated studies allows teachers to seamlessly connect content areas rather than teaching skills in isolation. When beginning a study or exploration, it is essential for teachers to intentionally plan, with the whole child as well as state standards in mind. Teachers should begin this process by creating a graphic organizer that includes everything they plan to do to extend upon the central idea. This web is only a tentative plan and should not dictate the way the study unfolds. Rather, the teacher's plans should depend on children's responses. Reflective teachers carefully consider children's interests, as well as developmental levels and evolve their planning as they observe children investigate, represent, and share their findings. When planning, thoughtful preschool teachers create a variety of opportunities for children to make choices and decisions, prepare interesting and challenging activities that promote prosocial behavior, provide learning experiences that foster creativity, and offer opportunities to share work with audiences in developmentally appropriate ways (Isenberg & Jalongo, 2010).

Graphic organizer planning web should include:

- list of books
- materials and additions to the physical environment and interest areas
- new and rich vocabulary
- various types of questions (touching upon all levels of bloom's taxonomy)
- explorations for both teacher-directed and child-initiated parts of the day
- experiences that cover all domains, content areas, and relevant standards
- family and community connections

- opportunities to share learning with others
- tentative timeline for experiences and investigations

Projects and Studies

Projects and studies are different words for the same thing. They extend over time, usually 2-6 weeks depending on interest. Projects (Katz, Chard, & Kagan, 2014; Kostelnik, Soderman, & Warren, 2015) involve more in-depth study than a weekly theme. Weekly themes are too short to allow children to really explore and gain knowledge about the topic. Projects involve learning in all domains, throughout learning centers, hands-on activities and teacher-guided small and large groups. Topics are authentic and relevant to NJ young children. They build on children's experiences and interests. Projects involve children in researching, exploring, asking questions, and documenting their learning. Projects expand as the children go deeper and raise questions.

In selecting a good topic to investigate, consider these questions:

- What do children talk about or show interest?
- Does this topic address children's interests or potential interest?
- Is this topic real and relevant to children's experiences and is it age appropriate?
- Do enough of the children have experience with the topic so they can come up with questions to investigate and explore? Does the topic build on what children already know?
- Can children explore the topic firsthand? Can real objects be manipulated?
- Social studies or science topics tend to lend themselves easier to integrating across standards. A book or poem can sometimes be a starting point for a project.
- Are resources such as people to talk to, places to visit, objects or living things to observe and explore, and books available?
- Can the topic be explored in a variety of ways over an extended period?
- Will the topic encourage children to use literacy and math in real-life contexts?
- Does the topic lend itself to representation in a variety of ways (e.g., dramatic play, writing, constructions)?
- Will the topic facilitate communication with families? Are family members likely to want to get involved with the project?
- Is the topic respectful of cultural differences?
- Is the topic worth studying and meaningful for children?
- What resources do you have to make the Project come alive?

Ms. Janie listened to the children's conversation during lunch.

- Evan: "I love pita sandwiches."
- Pauline: "It's not a sandwich; sandwiches have bread. That isn't bread!"
- Josef: "My mommy maked me a tuna sandwich on a bagel." Pauline: "A bagel isn't bread silly. It's a bagel. Bread is for sandwiches."

- Maria: "Well my mommy makes garlic bread for my daddy when we have spaghetti. He doesn't make a spaghetti sandwich! You can have bread and no sandwich."
- Pauline: "Ms. Janie, tell them you need bread to make a sandwich."
- Ms. Janie: "There are lots of different kinds of breads, like we had a hot dog on a hot dog bun yesterday; Buns are one type of bread. Some breads you can make a sandwich with and some you eat without a sandwich. You can even make a lettuce sandwich with no bread! I'll look for some books about bread."
- Ms. Janie reflects with our study on water coming to an end, perhaps the next study should be about bread.

At large group the next morning, Ms. Janie asks the children what they can tell her about bread and charts their responses. Then she asks what they want to know about bread and charts those responses. Like the lunch discussion, there is much interest and experience with the topic. Over the course of the next week, she makes a graphic organizer for a Bread Study, and begins finding and gathering materials to support the investigation.

Celebrating Diversity

Children are developing their sense of self and their understanding of social identities (race, culture, gender, religion, class, etc.) during early childhood (Derman-Sparks & Edwards, 2010). Preschool teachers understand that by celebrating diversity throughout the curriculum, they can help students develop positive identity, self-esteem, foster understanding about others, and prepare children for the future.

In supportive learning environments, children see aspects of their own culture reflected in the images on display, language on the bulletin boards, materials in the learning centers, and the songs and literature shared during class meetings. As children see their lives reflected in the classroom, they develop a stronger sense of pride and belonging, and can form closer relationships with peers and teachers (Crawford & Wanless, 2016).

Preschool children are naturally curious about their own physical and cultural characteristics and those of their peers. Teachers can help students explore those similarities and differences in positive ways through planned activities and read-alouds. Looking closely and discussing differences in hair, facial features and body parts, allows students to celebrate who they are while also noticing differences among others. Teachers should provide matching games and puzzles that require students to look closely and notice unique features.

There are many books that celebrate skin tones. *Happy in Our Skin, The Colors of Us, and All the Colors We Are/Todos Los Colores de Nuestra Piel, The Story of How We Get Our Skin Color/La Historia de Por Qué* are just a few that are appropriate to use with preschoolers. Children should be given the opportunity to explore the uniqueness of their own skin color. Teachers can provide paint colors that children can mix to match their skin. The paint can be used to create a class poster of student handprints and self-portraits, and it should then be added to the art center for use throughout the

year. By reading and discussing picture books that represent diverse characters and experiences, teachers also promote cultural awareness, highlighting the many ways in which people and their lives, are both similar and different. Teachers should be sure to incorporate books that will provide opportunities to validate and teach students about the diversity in our world (e.g. cultural groups, languages, races, family structures, genders, abilities, religions and traditions. Effective teachers use these opportunities to have conversations that expand children's understanding of diversity, and help reveal and challenge children's assumptions (Lee, Ramsey, & Sweeney, 2008).

Universal Design for Learning

The critical role of play in early childhood learning has a long history of recognition. Quality play activities facilitate cognitive development, social skills, language, problem solving, and emotional development while providing practice for events, situations, and routines in young minds (Grant, 2017). Quality play refers to developmentally appropriate play activities with suitable challenges (Grant, 2017). While play skills might come naturally for many children, children with disabilities might face obstacles in learning play skills. In other words, children with disabilities typically face intrinsic challenges (e.g., atypical play behaviors, lack of interest in peers, etc.) or extrinsic barriers (e.g., lack of accessibility to materials). Therefore, teachers need to recognize the average trajectory of play development (e.g. solitary, parallel, associative, cooperative play, etc.; Cooper, 2013) and atypical play behaviors and employ universal design of learning in preschool classroom.

What is Universal Design of Early Learning?

It is designing early education settings so all children, as equal and valued members of the program, may have access and engage in all learning environments, learn from a common curriculum according to their individual strengths and abilities, and demonstrate their learning in multiple ways (Conn-Powers, Cross, Traub, & Hutter-Pishgahi, 2006).

Principles guiding the universal design of early education include multiple components.

The physical environment enables all children to have access and equitable opportunities for full participation in all program activities. This includes structures, permanent and movable equipment and furnishings, storage, and materials. Health and safety components promote wellness and minimize risks and hazards for all children. All children, regardless of health status or conditions, have ongoing access to learning without interruptions due to illness and injury. The social-emotional environment offers all children equitable access to and full membership in the social-emotional life of the group, and it supports their social-emotional development. The teaching environment gives all children equitable access to learning opportunities through information and activities in multiple formats and multiple means for engagement, expression, and learning. This includes the curriculum, teaching practices, materials, and activities. Individual assessment and program evaluation practices provide multiple approaches to finding out what children know and can do in order to equitably assess individual learning, development, and educational progress. Family involvement practices support the equitable access and engagement of all families in the full range of experiences. This includes ongoing communication, learning opportunities, and program involvement activities (Conn-Powers, Cross, Traub, & Hutter-Pishgahi, 2006, pp. 5-6).

Universal Design for Learning (UDL) is a scientifically valid framework that provides all students, including students with disabilities and students who are limited English proficient, the opportunity to learn by meeting the needs of all learners. UDL provides:

- flexibility in the way information is presented, students respond or demonstrate knowledge and skills, the way that students are engaged
- reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, maintains high achievement expectations for all students
- improves educational outcomes for all students by ensuring meaningful access to the curriculum within an inclusive learning environment (Higher Education Opportunity Act 2008)

Utilizing learning centers and implementing in-depth investigations are a few ways that UDL can be implemented in the classroom.

Dual Language Learners

Teachers must provide support for the home language of preschoolers to validate their culture and language and enable the development of a strong foundation in their first or home language. Having a strong foundation in one's first language also paves the way for a smoother and stronger transition to learning English. It is important to recognize the need to make modifications in the presentation of vocabulary, directions, storytelling, reading, and other oral language communication. Simple supports such as gestures and movement, modeling, pictures and other visuals can help Dual Language Learners understand and participate in the curriculum. Children's families, other colleagues, and community resources (e.g. places of worship, cultural centers, ethnic restaurants, and stores) can help teachers learn a few key words when you don't speak the native language of the child. Internet resources and apps are also available for basic translation.

Supporting Dual Language Learners in Language and Literacy

- Use clear and simple language. Demonstrate and name concepts such as "slow" and "fast". Use self-talk as you model. This helps to expand English vocabulary and pronunciation as children can see what you mean and how it sounds in English.
- Join and participate in all learning centers, even when you don't speak the language spoken by those playing together. Observe what children are doing and name words and actions.

  "I see you are painting with blue paint." Imitate or point to their movement and picture as you repeat "painting with blue paint".

- Using created menus with pictures of food known to the children pretend that you're ordering or take an order building on vocabulary and pronunciation.

  "I really like restaurants that offer boneless chicken." (show picture)

  "What can I get you? "(show pictures on menu)

"Good choice, the fried fish is very tasty today."

- Provide empty food containers representing the cultural background of the children. Learn to pronounce the names of the food from the label on the containers.

  "Today I am going to cook arroz blanco and frijoles negros." (show food container(s)) "Can you help me? Do you think I need two pots? One pot for the arroz blanco and one pot for the frijoles negros." (show two pots)

- Set up projects and studies. With the assistance of families and bilingual colleagues, create a key word list with pictorial support for the project topic in the children's home language. Learn and use these key words with associated visuals to provide daily support to the Dual Language Learner(s). The overall project sets up continuity of language acquisition, as children hear the same words in varied contexts and learning centers.

- Create a print-rich environment that's appropriate for the cultures and backgrounds of the children in your class. Label shelves and areas of the classroom using pictures and words in English and in the home language(s) of the Dual Language Learner(s). The labels will help the adults use the child's home language(s) when referring to the items and areas during routines and play.

- Reading books helps to introduce and reinforce vocabulary. Use books with simple language and pictures that provide support for the text. Use books that align with the current project as it reinforces vocabulary. Read often either to the whole group, to a small group or individually. Read with animation, use gestures, point to the pictures.

- Read books in the primary language(s) of the child when you can or invite a family member in to read a book in their native language.

- Create many opportunities for children to listen and use language.

- Understand that children communicate their knowledge in the language they are most comfortable in, and for Dual Language Learners this may mean the use of code switching or using their home language, English, and/or a mixture of both.

Supporting Dual Language Learners in Math

Dual language learners in preschool classrooms may have a grasp of mathematical concepts and skills but difficulty expressing their understandings in English. Therefore, early childhood teachers should use the following strategies to promote development of mathematical concepts and process skills of dual language learners (Epstein, 2014; Erikson Institute, 2014; Van de Walle et al., 2016):

- Observe what they do instead of what they say and provide appropriate feedback or further assistance accordingly.

- Provide them with manipulative materials (use materials from the children's culture), hands-on experiences, and repeated exposures.

- Use repetitive rhymes or songs to incorporate math concepts and vocabulary. Count the number of

children present (in English and in other languages).

- Group or pair them with other children for both academic and language support
- Encourage them to learn and exercise mathematical vocabularies in their primary language as well as English.
- Encourage them to think and express their understanding in their primary language, if there is an adult or other child who can interact with them in their primary language.

Section 5: Moving Beyond the Classroom

Professionalism

NAEYC (2010) standards consider being a professional as an important competency for effective teachers. The responsibility of being an early childhood educator is not one to take lightly. NAEYC defines being a professional as someone who identifies with and conducts themselves as a member of our field, who knows and uses ethical guidelines and other professional standards, who is an active collaborative lifelong learner, who demonstrates evidence-based, reflective, critical perspectives in her practice, and who is an informed advocate for children and families and the profession. Thus, professionalism means immersing yourself in our profession and sharing the core values and beliefs of our field. Your actions as an individual demonstrate a strong commitment to teaching. Being a preschool teacher is so much more than a job. It's part of your being. Professionalism is being respectful, responsible, and inclusive. It's having an anti-bias approach in your classroom and treating each child and family equitably. Professionalism is truly believing that all children are capable learners and supporting a holistic vision of the child. Professionals use a strengths-based stance in their teaching knowing that focusing on deficits means that strengths are not developed. Professionalism requires the integration of reflective practice and ongoing professional learning.

As a preschool teacher, you believe in and uphold NAEYC's Code of Ethical Conduct (2011), and make ethical decisions always putting the well-being of a child first. You maintain confidentiality and don't gossip. You use and apply New Jersey Preschool Teaching and Learning Standards in your classroom and abide by policies and procedures regarding child abuse and neglect as well as other laws, standards, and systems relevant to be a New Jersey teacher. You adhere to school guidelines and requirements. Professionalism means seeking out opportunities to increase your knowledge and improve your practice, by reading relevant journals, taking courses, participating in professional development, working together with other professionals, and staying up to date on changing theories, new research, strategies and standards that we can incorporate into our classrooms. Lastly, professionalism is standing up for children and families to improve the quality of life and education in your classroom as well as for all children and their families.

As working with young children is complex and demanding, ongoing learning is critical for preschool teachers. Since generic school-wide PD for all grades often don't address the needs of preschool

teachers, any workshops should focus on working with preschool children and their families. Professional learning goes beyond attending workshops and can take many forms.

Suggestions preschool teachers can organize within their schools:

- Article a month-club: Rotate taking turns to share an article to discuss from *Young Children*, *Teaching Young Children* and *The Reading Teacher are good places to begin.*
- Dive into ECERS: Focus on one subscale or group of items at each gathering. Talk about the indicators and share ways you address them in your classroom.
- Standards Plunge: Focus on one content area at each gathering. Discuss the standards and ways you incorporate in your classroom.
- Bored with Science: Each person brings in something new/novel you've added or collected for the science area. Bring enough extra to share with one other classroom.
- Help-Me: Allow three to five minutes for one teacher to share the challenge and what they've tried, and then five to ten minutes for the group to brainstorm solutions.
- Idea Swap: Set-up like speed dating where pairs have 5 minutes to share their ideas and then move to the next. Use a timer.
- Virtual Club: Set up an email group list. Send links to the group of good ideas, articles, or websites you've found. Be discriminating as not everything on the internet is developmentally appropriate. Just because it's *cute*, doesn't mean it is best practice.

Effective Teamwork within the Classroom

While there is an abundance of research on young children and teaching, there is little on what makes for an effective preschool classroom teaching team. However, as any preschool administrator, teacher or assistant will tell you, having a good team can make or break the classroom. When observing high quality classrooms, it is often difficult to tell which adult the teacher is and which is the paraprofessional as they seamlessly work in harmony in the best interests of the children. Effective teams have a clear shared vision and use developmentally appropriate practices (Copple, Bredekamp, Koralek, & Charner, 2013) as the foundation for how children grow and learn. Effective teams also develop a high level of trust through respect, candor and honesty, maintain frequent open communication, acknowledge interdependence, and have a shared responsibility of successes and failures (Beatty, 2017; Bloom, Hentschel, & Bella, 2010; Pickett & Gerlach, 2004; Hopkins, 2016; Sanchez, Steece-Doran, & Jablon, 2012).

Practical tips for working as an effective team gathered from preschool teachers across New Jersey:

- set expectations on DAY 1
- make sure to show appreciation
- when there is a problem, talk right away

- be respectful
- get to know each other as you would get to know children
- don't hold back when giving feedback; you won't be able to help students without helping each other
- be clear with directions and instructions
- share responsibilities
- the more an assistant knows and understands about what they are doing, the better-quality job they will do
- discuss each other's roles
- communicate and collaborate daily
- share stories about what the children said and did
- laugh

Reflective Teaching

Teachers require much more than a discrete set of skills and knowledge because the situations in which they work are complex and dynamic. Reflection or the act of thinking back allows us to notice, examine, and perhaps rethink our understanding of issues, beliefs, and practice. Reflect on discussions with children, colleagues, and families, planned and unplanned classroom activities and events, how the environment is being used, your teaching and what works or didn't go as expected, articles you have read, and professional growth. Many find maintaining a teaching journal helps to think things through. Others use a daily walk, weekly meeting with peers, driving home at the end of the day, or simply using quiet personal time to pause and reflect. The intention is to develop the art of reflection-in-action, rethinking your thoughts, and expressing inner dialogue to help you better understand yourself as an individual and a teacher, your children and their families, and the strategies and practices you use.

> *"Reflective early childhood teachers are intentional and thoughtful about their beliefs and practices, and they continuously review and analyze their observations and experiences… They use their reflections in and out of the classroom to take actions that steadily improve their professional teaching practice" (Curtis, Lebo, Cividanes, & Carter, 2013, p. 2).*

Reflection also allows teachers to make meaningful and intentional decisions about how to plan for children in their classrooms. Reflective practitioners carefully consider their observations and interactions with children as they plan for future experiences, activities, scaffolds, and opportunities to expand children's play. Reflection is a fluid process that is constantly evolving and takes time and practice on the part of the teacher. As skilled observers, preschool teachers must set time aside to

reflect on their observations in order to interpret the information and use it in their planning and decision making. Reflections should guide teachers as they make positive changes to their classrooms and teaching practices.

Reflective practitioners:

- document children's language, conversations, play, skills, and interactions
- plan intentionally based on children's strengths and needs
- constantly ask themselves: How did children respond? How did I respond? What can I do differently next time? How can I become more effective?
- make changes to the classroom environment based on observations
- carefully consider children's interests, prior knowledge, and cultural backgrounds
- communicate observations to families
- allocate time for reflection as part of the planning and assessment process
- strive for growth and improvement of their practice

Young children's development is uneven, and all children do not develop at the same rate or in the same way. Reflection provides teachers with the opportunity to look closely at their teaching practices and to make changes based on the needs and developmental levels of the children in their classrooms. In the fast-paced world we live in, with multiple distractions in our everyday life, the demands of teaching preschoolers can be both energizing and draining. The intent of reflection is that you self-evaluate as you review your practice. Why do you do what you do? What do you need to work on and how are you going to do this? Why did something go well? Why didn't it go well? What is working and why? What isn't working and what can you do to make it go well?

Student Growth Objectives

AchieveNJ defines Student Growth Objectives (SGOs) as academic goals for groups of students that teachers and supervisors set in the beginning of the year. Preschool teachers in NJDOE publicly funded schools and centers are required to set and use SGO's. It is recommended that teachers have completed at least nine weeks of instruction with the children being assessed. The SGO is to be scored and reviewed during the beginning, middle and the end of the school year. The purpose of SGOs is to show a reflection of the teaching and learning that went on concurrently throughout the year in the classroom.

The SGO serves as one documentation and measurement of growth. This achievement will be noted not just for student growth but also for teacher growth and development as seen in end of the year evaluations. According to Darling-Hammond (2000), the "effects of well-prepared teachers on student achievement can be stronger than the influences of student background factors, such as poverty, language background, and minority status" (p. 39). The SGO serves as a tool for instructional planning and preparedness throughout the entire school year.

Effective SGOs for a preschool classroom must be:

- specific and measurable
- based on data that is student-centered
- assessed in daily curriculum and for multiple domains of learning
- based on goals determined from multiple measures of assessment

Setting Student Growth Objective Learning Goals According to *AchieveNJ:*

- at least two SGO goals are to be set in each classroom. one in the category of language, literacy and communication and the other in mathematics
- SGO'S goals are to align with new jersey department of education's pre-k standards (2014)
- assessment involves using program's PBA measures
- learning goals must be developmentally appropriate and meaningful toward student learning

See AchieveNJ website for SGO Examples. https://www.state.nj.us/education/AchieveNJ/

Setting up SGO Target Scores

Target scores reflections on the teaching and learning that is happening in the classroom. Children can be tiered based on performance or individual targets established. It is recommended that at least two levels of growth be documented.

Setting a target growth on only 1 level will be considered appropriate under the following circumstances:

- Child has an IEP
- Teacher has significant evidence supporting that decision

Scoring Midpoint

Any adjustments need to be completed by the 15th of February or as determined by the school/district. The following situations may justify the modification of the SGO's:

- teacher schedule/assignment changes or extended leave of absence
- class population has changed
- new, higher-quality sources of evidence become available
- an event out of the ordinary has occurred that interrupted student learning (e.g. extended school closure)
- after further inspection the SGO appeared to be flawed and impossible to determine growth

Any revisions of midpoint SGOs must be discussed and reviewed with administration before submission.

End of year scoring

For the SGO learning target to be attained for the end of the year, the SGO target score must accurately reflect the impact of student learning. Teachers must provide evidence to justify the target score.

Working with Other Professionals

All children are unique and develop at different rates and learn in different ways. All families want their children to succeed and each have their own nuances, configurations, values, and dreams. Cultural and linguistic differences sometimes add challenges. As the child's teacher, changes in behavior, atypical actions or reactions, and observed concerns are often evident in the classroom. In addition, families may approach the teacher to discuss personal or child-related worries. Preschool teachers, however, are not medical, psychological, behavioral, or occupational experts, therapists, or counselors and need to reach out to other professionals.

Thus, effective preschool teachers work not just with other teachers and administrators, but also with social workers, music teachers, therapists, and other professionals who interact with the children and/or their families. Collaboration with the therapists, social worker, behaviorist and other professionals is vital to the success of preschoolers and their families because as a team, they can come together to make decisions concerning child's education or behavior, as well as, get advice and bounce ideas off each other. Develop professional resources and linkages to turn to for additional support to help the child thrive. Share concerns, ask questions, discuss observations and collected documentation, offer perspectives based on knowledge and experience, listen to feedback, consider alternatives, be open to trying different strategies, seek out expertise, come to meetings prepared, and be respectful of the time and thoughts of others.

Transitioning to Kindergarten

As preschoolers move into kindergarten classrooms, children will continue to learn by experiencing the world around them. Think of transitioning as a partnership with children, preschool teachers/programs, kindergarten teachers/schools, and families. As preschoolers prepare to transition to kindergarten, it is essential for teachers and administrators to provide supports for both children and families to ensure smooth transitions from one classroom setting to the next.

Suggested transition activities include:

- encourage families to visit future kindergarten classrooms and meet with kindergarten teachers
- schedule field trips for children to spend time in kindergarten classrooms
- visit future kindergarten classrooms and invite kindergarten teachers to visit preschool classrooms to read, play, and engage in activities with preschoolers
- create reading lists and activities for families to use throughout summer months

- hold kindergarten information sessions where families can ask questions and gather a better understanding of the kindergarten day
- offer meetings focusing on child and family expectations in kindergarten to better prepare children and their families for the year ahead
- provide professional development opportunities that combine both preschool and kindergarten teachers to ensure continuity from one setting to the next
- provide families with information on registration guidelines, options in the community, and information on schools, as well as health and nutrition information
- provide common planning time for preschool and kindergarten teachers as well as administrators to ensure alignment from one year to the next
- create a kindergarten transition team composed of both kindergarten and preschool teachers to facilitate the activities

The focus on transition should not begin or end with kindergarten. Preschool programs and teachers need to consider and plan for how children transition into preschool from home or other settings, as well as transitioning between preschool classrooms. In addition, school systems should create preschool through third grade transition teams whose focus is to support children and their families as they move through each year.

Collaborative Partnerships with Families and Communities

Partnerships between a young child's home, school and community are especially valuable in the preschool years. Knowledgeable early childhood educators understand the positive impact and benefits of engaging partners as a child's "out-of-school" support system focused on learning and healthy development.

The early learning years are a time when children reach important developmental milestones and acquire foundational competencies such as language, literacy, essential basic mathematical skills, and social-emotional skills, all of which strongly affect their capacity for life-long learning and success. Meaningful partnerships based on children's learning and development have a powerful influence on their future; perhaps, more than any other time in a child's school experience.

Effective educators recognize that partnerships with parents, families and community connections will strengthen their ability to reach and teach all children. They use that knowledge and their competencies to create the programmatic conditions and practices for meaningful parent, family and community engagement that enables student learning and development.

All parents, regardless of income, educational level, culture, race, or religious background, want their child to be a successful learner. According to decades of research, the most accurate predictors of a student's achievement in school is not income, access to expensive resources, or social status, but the extent to which that student's family is able to:

1. Create an environment that encourages learning,
2. Communicate high, yet reasonable, expectations for their children's achievement and future careers, and
3. Become involved in their children's learning and development at school and in the community.

Partnering with Parents and Families

Every child deserves at least one supportive adult to champion their education, health, safety, and general welfare. Sometimes that person is the child's parent and other times it may be someone who serves in a parenting role.

It is important to recognize that the term "parent" can be restrictive and defining it in our everchanging social culture can be a wide-ranging effort. However, some parents express their preference to be recognized as the child's main or sole support. In addition, as our society evolves, family structures are changing, and roles are being redefined. Therefore, it is important to be clear to whom we are referring and why.

In this document, the term "parent" indicates any adult who plays a legal and significant role in a student's life, including, parents; stepparents; parents' significant others; foster parents; siblings; grandparents; aunts, uncles, and extended family; caretakers; and others who regularly contribute in important ways to a child's education and development. The term "parent" may be used interchangeably with the word "family" or the phrase "parent and family" referring to those who share responsibility for the well-being of a child. (This is another example where educators need to personally know their students and become sensitive to their support system outside of school.)

Working with All Parents and Families

A substantial body of evidence from over 50 years of practice shows that parent involvement and engagement in student learning is associated with children's academic performance and social competence. However, not all families have the same capacity to create the conditions that help and support their child's learning and healthy development.

New Jersey is a diverse state and neither students nor their families "fit" neatly into narrow, traditional education categories. Effective educators understand and value the importance, benefits, and complex characteristics of diversity. The issues around diversity and engaging students and families particularly involve, historically, underserved and underrepresented populations, such as individuals of color, students or family members with disabilities, various religious communities, families living in poverty, English language learners, and immigrants. Educators and the programs they operate must deliver equitable practices and services that enable parents and families to provide the supports that influence students' learning and healthy development.

Equity is different from equality. Equity is giving everyone *what they need to be successful.* It is often confused with equality. Equality is *treating everyone the same*, even if that treatment doesn't allow children to meet learning expectations or if it doesn't allow families to help their children in meaningful ways. Therefore, effective educators will use equity as a framework for teaching and supporting each child and will consider equity when building learning partnerships with their families.

Types of Effective Parent and Family Partnerships

When building effective programs and supporting professional competencies it is important to understand that there are three basic types of home/school relationships: parent *involvement at*

school, parent *engagement* in student learning and *compliance* activities. Most schools practice involvement and compliance and do not recognize the power to positively impact student learning and development. Effective early childhood educators and program leaders will build plans that contain a balance of the three types of relationships with the parents and families of their students.

1. Parent *involvement* is a common term used to bring educators and parents together in schools. Parents who are involved at school focus their participation on attendance at the activities that educators ask or expect of them. The basis of parent involvement is that the school drives the outcomes. Parent involvement at school is basic and is often the most common type of home/school relationship. However, that narrow focus need not limit building the type of relationships that can impact children's learning and development. Involvement can be part of a balanced family engagement program.
    - Examples of involvement include traditional activities such as planning and participating in classroom social events, attending children's performances, volunteering, providing school supplies, collecting box tops, conducting school fundraisers, chaperoning activities, and membership in parent organizations.
2. Parent *engagement* is the most powerful, yet the least common type of relationship educators and programs build with parents and families. It brings parents and schools together, however, the perspective and expectations are different. Engaging parents and families in student learning and development prioritizes interactive practices where parents are welcomed, valued and respected partners in the education program and decision-making about their child's learning, growth and preparation for kindergarten or the next grade. As learning partners, parents are invited to, and provided with, multiple opportunities to share their unique knowledge and comprehensive expertise about their child.
    - Examples of a school's commitment to engage parents is in grounded, trusting, one-to-one relationships. Those types of relationships allow for two-way conversations and focused communications, where a parent's insights and contributions about their child's needs are blended together with educators' expertise about teaching and learning. As the relationships grow they should become learning partnerships and educators can provide knowledge about the goals and expectations of the education program and developmental milestones.
    - Once respect and trust are developed and there is a shared understanding of the child and the program, educators can use their professional skills and community connections to ensure that parents have equitable opportunities to build their capacity to understand and engage in their child's learning. Effective educators will do this by providing guidance and insight into classroom teaching and learning strategies and in making personalized connections to community-based social support systems that enable the health and well-being of the child and family.
    - As a team, parents and teachers develop a joint understanding of the early childhood curriculum, instructional practices (i.e., play as an instructional strategy), learning standards (such as those supporting early literacy and math), expectations (through observation,

screening and assessments), as well as age appropriate social-emotional skills and developmental milestones. Families should always understand "what" their children are learning and "why" their children are learning a concept in the classroom. Effective educators communicate the "what" and "why" by sharing methods to support that learning and empower families to practice the new skills outside of the classroom.

- Together, parents and educators should use all of their observations and information about the child's progress to set goals; make decisions; identify resources; find needed supports; commit to impacting learning beyond the classroom; regularly monitor expectations and student outcomes; and continue their open communication about the child's progress. This cycle of engagement and communication promotes shared information back and forth across the learning partnership and creates ongoing plans for teaching, learning and supporting the child's success.

3. *Compliance activities* are based on the school's mandatory responsibilities. All early childhood programs and schools in New Jersey are required to comply with state requirements and some schools and programs are required to comply with specific federal mandates. Compliance activities must be in place whether parents participate at school, in learning support at home, or not at all.

   - Examples of compliance activities range from policy and procedure development, adoption of a recommended curriculum, specific staffing (in state-funded programs staffing includes Community and Parent Involvement Specialists (CPIS) and Preschool Intervention Referral Teams (PIRTs) which must include families), notifications to families, conducting and reporting facility inspections, student behavior management systems, and program Self-Assessment Validation procedures. School and program leaders should include parents and families by soliciting feedback on practices and be responsive to their input when developing plans to meet compliance responsibilities.

Principles of Effective Practice for Working with Parents and Families

After an extensive review of the research on parent and family engagement, the New Jersey Department of Education supports NAEYC in the following adaptation of the National Standards for Parent and Family Engagement. In high quality early childhood education programs, family engagement practices encompass the following six principles:

1. ***Programs/Schools invite families to participate in decision making and goal setting for their child.*** Programs invite families to actively take part in making decisions concerning their children's education. Teachers and families jointly set goals for children's education and learning both at home and at school.

2. ***Teachers and programs engage families in two-way communication.*** Strategies allow for both school- and family-initiated communication that is timely and continuous. Conversations focus on a child's educational experience as well as the larger program. Communication takes multiple forms and reflects each family's language preference.

3. ***Programs and teachers engage families in ways that are truly reciprocal.*** Programs and families benefit from shared resources and information. Programs invite families to share their unique knowledge and skills and encourage active participation in the life of the school. Teachers seek information about children's lives, families, and communities and integrate this information into their curriculum and teaching practices.
4. ***Programs provide learning activities for the home and in the community.*** Programs use learning activities at home and in the community to enhance each child's early learning and encourage and support families' efforts to create a learning environment beyond the program.
5. ***Programs invite families to participate in program-level decisions and wider advocacy efforts.*** Programs invite families to actively participate in making decisions about the program itself. Programs also invite families to advocate for early childhood education in the wider community.
6. ***Programs implement a comprehensive program-level system of family engagement.*** Programs institutionalize family engagement policies and practices and ensure that teachers, administrators, and other staff receive the supports they need to fully engage families.

NAEYC's Principals of Effective Practice

Strategies for Effective Parent and Family Engagement in Student Learning and Development

1 Avoid the "one-size-fits all" mentality and practices.	***8*** Create and disseminate timely and continuous, culturally and linguistically appropriate curriculum-linked communications for all families.	***15*** Establish a rapport and comfort level with diverse and ethnic parents. To build trust, share information about the school community, and according to your own comfort level, share information about yourself.
2 Seek professional development to ensure that teachers, administrators, and other staff receive the supports they need to fully engage families.	***9*** Provide parental education that includes family literacy and understanding of school community.	***16*** When parents and you both feel comfortable, ask questions, then listen… ○ "Describe what schools are like in the country/state/city from which you came."

3 Stimulate professional thinking and discussion about how to meet the challenges of education in a community/society of people from different cultures, races, linguistic abilities, family structures, and ethnic backgrounds.	***10*** Communicate in multiple ways to engage families in understanding student learning standards, strategies that support learning outside the classroom, an outline of developmental milestones and goals, performance expectations, and student progress.	○ "What are the big differences between those schools and schools in New Jersey?" ○ "In your country/state/city, what is the family's role in helping a child learn?" ○ "What type of information do you want from your child's teacher? The school? " ○ "What is the best way to give you this information? To whom should we give the information?" ○ "What can the teacher/school do to help you feel more comfortable contacting us?" ○ "What would help the teacher/school better understand your child and your family?" ○ "What would help you to support your child at home?" ○ "How can we work together to help your child do well in school?"
4 Use broadly shared definitions and approaches regarding a joint responsibility for student learning and development.	***11*** Encourage and support family empowerment through parent-initiated efforts at the school and community levels.	
5 Join as an entire education community to develop reciprocal understanding of schools and families.	***12*** Assist families with parenting, childrearing services and skill development to help create home conditions that support learning.	
6 Position cultural strengths of students, families and communities within the school curriculum and support resources.	***13*** Collaborate and coordinate with diverse work and community-based agencies to strengthen school programs and connect families to services they need.	
7 Collaborate to find culturally and linguistically appropriate ways to approach and respond to students' and families' engagement in learning	***14*** Include families as participants in school decisions, governance, and advocacy through councils and organizations.	***17*** One parent doesn't represent all families in the community. Consider the cultural influences that might prompt various types of interactions with students and families.

Adapted from NAEYC's Principals of Effective Practice

Community Awareness and Engagement

Effective early childhood educators and leaders build partnerships with the community as a powerful lever for improving children's learning, healthy development and the family systems necessary to support them. Educators should also utilize the community as a resource to enrich the educational experiences that they provide to children.

When educators actively facilitate home/school/community partnerships with and for families, it means educators understand that the support a child needs is scaffolded by the family's needs. Awareness of community strengths can help teachers and program leaders connect families to the resources and social services they may need to become a stable, healthy support system for their young child. Supporting the family as a social structure is instrumental in helping them, in turn, support their child.

Meaningful learning partnerships between a young child's home, school, and community are especially valuable from birth through kindergarten as this is when young children achieve early developmental milestones and acquire foundational competencies such as language, literacy, essential basic mathematical skills, and social-emotional skills, all of which strongly impact school readiness and their capacity for life-long learning and success. It is also important to note that it is during their child's very early years, when families are connected to both their community and their child's learning/care facility, that they simultaneously build their own awareness and baseline capacity to do supportive, at-home learning activities and effectively engage in their child's learning and healthy development.

Communities are in the unique position to facilitate trusting relationships between schools and families and help them work with their young child to build the social, emotional, cognitive, developmental, and language skills needed for school readiness. When communities use knowledge about school readiness and performance expectations for students they can support families in creating the home conditions that anchor the child's learning and healthy development. When community members are familiar with the school programs, services and benefits that are provided to young children and their families, they can reach and support them years before they enter the school system. For example, assisting families with connections to parenting services and skill development resources can help them obtain supports, ask informed questions, and hold meaningful discussions about helping their child learn and develop through early childhood.

Successful educators seek to understand the community where children live and the factors that influence the child outside of school. They understand the challenges and benefits of an equitable education in a community of people from different cultures, races, linguistic abilities, family structures, and ethnic backgrounds. By becoming aware of community resources, teachers can use them to position cultural strengths within the school curriculum.

When educators work together with community partners, they can develop and provide additional opportunities and resources that expand and support the curriculum. *To* widen classroom experiences and materials available to children, educators can b*uild or expand relationships* with community professionals including librarians, nurses, doctors, dentists, mechanics, law enforcement officers, emergency response team members, restaurant owners, farmers, carpenters, hair dressers, store owners, and other business professionals. They can build partnerships with social agencies, employment agencies, health agencies, places with educational opportunities, as well as recreational opportunities to identify a broad base of resources that support families to be stable and successful. Creating a handbook or an electronic directory of resources available in the community helps provide information as well as links families and communities to common goals for their children.

The role that a teacher plays in a child's success in school, and in a child's life beyond the classroom, is enhanced by helping families identify and utilize the community as a support system. Highly effective early childhood educators utilize community resources to provide parents and families with the knowledge and skills necessary to be informed learning partners in their children's education.

Collaborative Learning Partnerships with Parents, Families and Communities

- ✓ Promote children's sense of identity and belonging
- ✓ Strengthen a child's support system
- ✓ Support families to be stable and successful
- ✓ Underpin support for children's academic and social emotional learning, self-awareness and self-esteem
- ✓ Enhance the curriculum
- ✓ Expand resources
- ✓ Offer opportunities for students to practice and generalize new skills learned at school
- ✓ Help children learn to respect and be comfortable with diversity and differences
- ✓ Support children's multilingualism
- ✓ Promote inclusion and equity for all children and families
- ✓ Demonstrate respect for diverse cultures, ideas and actions
- ✓ Inform opportunities for educators and families to enrich each child's unique learning and development trajectory
- ✓ Promote a partnership that strengthens school programs and connects families to the services that they may need to ensure the health and well-being of their child

Engaging parents, families and communities can improve the chance that every young child enters school ready to succeed and can obtain the supports that improve the home learning conditions and classroom achievement of every child.

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Resources

Project Study Environment Planning Form: Project/Study Focus: Bread

Center Area	Materials	Questions
Blocks	Bakery Sign, different size boxes (for packing baked goods); paper bags; crates (for bread delivery);	• How many blocks do you think you will need to build a bakery? • What other means of transportation can we use to get bread and other foods to different places?
Dramatic Play	egg beater; measuring spoons, flour sifter; mixing bowls; rolling pin; baking pans; cupcake liners; cupcake pans; icing tools; apron; bakers hat; funnels; empty egg cartons; empty containers marked "flour" and "sugar"; cookie cutters; empty baking soda or baking powder containers; empty vanilla container; bakery stand; bread recipes from around the world; bakery menu; paper bags; gloves;	• What would happen if the baker does not follow the bread recipe? • What do you think will happen if the oven does not work in the bakery? • How can we set up a bakery? Who works in a bakery? Who will you be?
Sand/Water Table	egg beater; measuring cups; flour sifter; seeds for planting; wheat straws;	• What would happen to the water if you pour it through the sifter? • What happens to the water if you use the beater? • If we plant these wheat seeds in our sand table, do you think wheat will grow?

Center Area	Materials	Questions
		• What do you think will happen to flour if we put it in water?
Math/Manipulatives	Pattern folder game; number matching; balance scale; photo bread matching cards;	• What do you think will weigh more, flour or water?
Art	Cupcake wrappers; bakery magazines for collage; pictures of ingredients;	• What do you think it will be fun to be a baker? • Which bread would you like to try? • How will you decorate your cupcake? • How kinds of bread can you find?
Nature/Science	Bread; measuring spoons; observation sheets; yeast; wheat straws;	• What do you think is going to happen to the water once we put the yeast inside? • Why do you think bread rises? How does bread feel?

Center Area	Materials	Questions
Library	Bread, Bread, Bread (A. Morris); Sun Bread (E. Kleva); Tony's Bread (T. de Paola); Bread is for Eating (D. Gershator and P.Gershator); Snipp, Snapp, Snurr and the Buttered Bread (M. Lindman); Everybody Bakes Bread, (N. Dooley); Bread Around the World (J. Serrano); The Little Red Hen (C.Ottolengi); The Bread Book (T. Hyland); Bread (D. Meachen Rau); Bread and Jam for Frances (R. Hoban); What's for Lunch? Bread (C. Llewellyn) ; Bread and Honey (F. Asch); From Wheat to Bread (K. Theone Keller) ; Baking Bread with Children (W. Lee Cohen); If you Give a Moose a Muffin (L. Numeroff) ; B is for Baking (S. McQuillan) ; The Baker's Dozen (D Andreasen); Walter the Baker (E. Carle); Mr. Cookie Baker (M. Wellington); Bread Comes to Life. A Garden of Wheat and a Loaf to Eat (G. Levenson)	N/A
Literacy/Writing Center	Book: The Little Red Hen; Little Red Hen props (rake, baking tools, stuffed animals (cat, dog, duck); baking recipe; oven; clothesline with story pictures; recipe book	What would happen if the baker cannot read the labels on the ingredients? What would happen if the baker does not remember to set the timer on the oven? What will you put into your recipe for bread?
Computer/Technology	Timer; e-story; iPad game (Shiny Bakery), watch YouTube video on how bread is made, YouTube video on bread around the world; camera	• How can we find what type of bread other cultures prepare? • How can we make the bread that people from other cultures/countries like to eat? • What can we use to help us find that information?

Family/Community Connection: Invite the local baker to visit the classroom and present to students how bread is made. Visit the local bakery and ask baker for demonstration of how bread is made. Create family book about the different kinds of bread they enjoy eating. Ask families to bring in and talk about special bread from their culture.

Teacher Prep/To Do: Create number matching game (loaf of bread dots with corresponding number), place baking ingredients inside zip log bags to weight ingredients and compare which weighs less, which weighs more; flannel pieces for *The Little Red Hen*; download Shiny Bakery; gather baking materials/ingredients; create rebus recipe; contact local bakery; ingredients pictures for scavenger hunt; information on how to say bread in different languages; create invitation/flyer for food drive.

English to Spanish Labels

English	Spanish
House Area	Area de la casa
Computer Area	Area de Computación
Literacy Area	Area de Aprendizaje
Writing Area	Area de Escritura
Table Toys Area	Area de Juguetes
Sand & Water	Mesa de Arena y Agua
Art Area	Area de Arte
Book Area	Area de Libros
Block Area	Area de Bloques
Music Area	Area de Musica
Science/Discovery Area	Area de Ciencias
Parents' Information	Información para los Padres

Everyday Words

English	Spanish
art (play) dough	plastilina
balls	pelotas
beads	cuentas
beanbags	bolsa de frijoles
books	libros
bristle blocks	bloaues erizados
building (Lincoln) logs	troncos de constuccion
calculators	calculadoras
camera	cámara
cars	carros
cash register	caja registradora
cassette player	tocador de casetes
cd player	tocadiscos compacto
cds	discos compactos
clay cutters	cortadores de arcilla
collage materials	materiales de collage
colored chalk	tiza de colores
construction paper	cartulina
cooking utensils	utensilios de cocina
cots	catres
counters	contadores
crayons	crayones

English	Spanish
cups	tazas
dinosaurs	dinosaurios
doll clothes	ropa de muñecas
dollhouse	casa de muñecas
dolls	muñecas
dominoes	dominós
dress up clothes	ropa para jugar
Duplo blocks	bloques duplos
easel	caballete
farm animals	animales de granja
feathers	plumas
felt	fieltro
first aid kit	botiquín de primeros auxilios
flannel board	tablero de fieltro
floor puzzles	rompecabezas de piso
fruits	frutas
games	juegos
gears	engranajes
gemstones	piedras oreciosas
geoboards	engranajes
glitter	escarcha
glue	peaadura
hats	sombreros
hollow blocks	bloques huecos
kaleidoscopes	kaleidoscopios
keyboard	teclado
lacing letters	letras para enlazar
lacing buttons	botones para enlazar
lacing cards	tarjetas para enlazar
Lego blocks	bloques lego
letters	letras
links	conectadores
magnetic board	tabla magnetica
magnets	imanes
magnifiers	lupas
markers	marcadores
mats	esteras
medical kit	botiquin
microscope	microscopio
mirror	espejo
paint	pinturas

English	Spanish
paint rack	percha para pinturas
paintbrushes	pinceles
paper	papei
pegboard	tabla para clavijos
pencils	lápices
play dishes	platos de juguete
play food	alimentos de juguete
play money	dinero de juguete
pom poms	pompones
pots and pans	ollas y cazuelas
puppets	Titeres
puzzles	rompecabezas
rhythm instruments	instrumentos ritmicos
sand toys	juauetes para arena
scale	balanza
scarves	bufandas
scissors	tijeras
soft blocks	bloques suaves
sorting boards	tablero para clasificar
sponge shapes	figuras de esponja
stencils	estenciles
tape	cinta adhesiva
tape measure	cinta metrica
telephone	telefonos
tissue paper	papel de seda
toothbrushes	cepillos de dientes
traffic signs	senales de trafico
train set	trenes
tricycles	triciclo
trucks	camiones
vegetables	vegetales
wagons	vagones
water toys	juguetes para agua
watercolors	pintura de agua
wooden shapes	figuras de madera