TEXAS

Prekindergarten Guidelines

(Updated 2015)

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Introduction

i. Welcome to the *Texas Prekindergarten Guidelines*

The learning experiences of the early years provide a foundation that guides the growth of children in all aspects of development. The experiences most certainly influence the rest of a child's educational progress. The thoughtful experiences provided by parents and teachers in a prekindergarten year can deliver a strong foundation for success in future classrooms.

The *Texas Prekindergarten Guidelines* are based on current knowledge of theory and scientific research about how children develop and learn; they reflect the growing consensus among early childhood professional organizations that a greater emphasis be placed on young children's conceptual learning, acquisition of basic skills, and participation in meaningful, relevant learning experiences. The guidelines delineate the behaviors and skills that children are to exhibit and achieve, as well as instructional strategies for teachers. They provide information on responsive teaching practices, the physical arrangement of a prekindergarten classroom, professional development as the key to high-quality prekindergarten programs, the involvement of families for better school readiness of children, strategies for bilingual instruction, considerations for children with special needs and disabilities, and methods of monitoring children's progress. The *Texas Prekindergarten Guidelines* are intended to be useful to a broad audience including school districts, Head Start programs, child care providers, and, most importantly, children's families. Finally, the guidelines provide a means to align prekindergarten programs with the Texas Essential Knowledge and Skills (TEKS).

The *Texas Prekindergarten Guidelines* offer detailed descriptions of expected behaviors across multiple skill domains that should be observed in four- to five-year-old children from the beginning to the end of their prekindergarten experience. The guidelines describe an average four-year-old child entering prekindergarten; it is well understood that due to age differences and previous experiences, not all children will show this level of development. Some children are at the beginning of the learning continuum while others are further along. Lastly, descriptions of children's skills at the beginning of the four-year-old program are not included for several domains (science, social studies, fine arts, and technology) as there is not an adequate research base to provide sufficient guidance. Furthermore, as there are many three-year-old children in prekindergarten programs, these children are not expected to reach end-of-prekindergarten-year outcomes for two years.

Informed efforts by families and teachers to build on children's motivation to learn play a critically important role in providing children with the proper foundations for school success. The *Texas Prekindergarten Guidelines* also offer suggestions on ways to deliver developmentally appropriate experiences for the learning needs of all children to help ensure an effective, efficient prekindergarten year. These suggestions should be implemented with the unique needs of all children in mind and should be informed by the many considerations for successful inclusion of children with special needs. Together these discussions should provide a comprehensive framework for effective use of the *Texas Prekindergarten Guidelines.*

The *Texas Prekindergarten Guidelines* can and should be used to support learning for children who are English language learners (ELLs), including those children receiving instruction in their home language. Under Texas Education Code §28.005, the state's policy is to ensure the mastery of English by all students, specifically in situations in which bilingual instruction is necessary to ensure students' reasonable proficiency in the English language and ability to achieve academic success. The Texas Administrative Code, Title 19, Chapter 89, further emphasizes the goal of bilingual education programs to enable ELLs to become competent in understanding, speaking, reading, and writing the English language by developing literacy and academic skills in the primary language and in English. Such programs emphasize the mastery of English language skills—as well as mathematics, science, and social studies—as integral parts of the academic goals for all students to participate equitably in school, regardless of English proficiency.

Children who speak a language other than English at home often come to school with varying degrees of bilingualism and at least some level of proficiency in two different languages. The child's home language should serve as the foundation for second language acquisition, as cognitive skills transfer from one language to another. Children who are ELLs should receive instruction in a manner they can understand and that is commensurate with their proficiency level in English. Children's current strengths and skills should serve as the starting point for new experiences and instruction rather than becoming a limitation. To use the *Texas Prekindergarten Guidelines* to the best advantage and to extend the learning of skills and concepts, teachers must build on children's existing competencies.

Finally, these guidelines are designed as a resource to help teachers make informed decisions about curriculum content and implement a comprehensive curriculum. Quality programs provide challenging but achievable curriculum that actively engages children in thinking, reasoning, and communicating with others. Such a curriculum helps to build connections among subject matter disciplines by organizing the large amounts of information children must learn into a set of meaningful concepts. Using the *Texas Prekindergarten Guidelines*, teachers can work across subject matter to provide many opportunities for children to achieve knowledge and skills through play and exploration experiences.

This document presents the Commissioner's guidelines for prekindergarten curriculum. Because there is no state-required prekindergarten curriculum, use of these guidelines is voluntary. Texas Education Code §29.153 contains statutory requirements concerning prekindergarten.

ii. How *Texas Prekindergarten Guidelines* Support Instruction for English Language Learners (ELLs)

Language acquisition is occurring in all four-year-old children. Many children who are ELL come to school already bilingual to some degree. A bilingual child has at least some level of proficiency in two different languages (LEER MAS, 2001).

The goal of bilingual education programs is to enable ELLs to become competent in listening, speaking, reading, and writing the English language through the development of literacy and academic skills in the primary language and English. The goal of English as a second language (ESL) programs is to enable ELLs to become competent in listening, speaking, reading, and writing the English language through the integrated use of second language methods. Both bilingual education and ESL programs must emphasize the mastery of English language skills, as well as mathematics, science, and social studies, as integral parts of the academic goals for all students to enable ELLs to participate equitably in school (19 TAC, §89.1201).

Each school district that has a district-wide enrollment of 20 or more ELLs in any language classification in the same grade level must offer a bilingual education program by offering dual language instruction in prekindergarten through the elementary grades, using one of the following four bilingual program models:

- Transitional bilingual/early exit
- Transitional bilingual/late exit
- Dual language immersion/two-way
- Dual language immersion/one-way

"Elementary grades" must include at least prekindergarten through grade 5. Sixth grade must be included when it is clustered with elementary grades (19 TAC, §89.1205).

Texas provides different models of instruction for students who speak a language other than English in their homes. English as a second language programs provide English instruction, while bilingual education programs provide instruction in both the child's home language and in English. The outcomes provided in the *Texas Prekindergarten Guidelines* are meant to be implemented and met with all children regardless of home language and instructional context.

Children who enter prekindergarten with a home language other than English are in an environment in which they are developing two languages simultaneously. Acquisition of a second language (English) can happen in tandem with the development of a child's home language. Because cognitive skills transfer from one language to another, children's home languages can and should serve as the foundation for English language acquisition. In order for ELLs to have long-term success, they must acquire both social and academic language proficiency in English: social proficiency in language used for daily interactions and academic proficiency in language needed to think critically, understand and learn new concepts, process complex academic material, and interact and communicate in English academic settings. Children literate in their first language will apply literacy skills to the second language. Effective teachers use the home language and literacy skills ELLs have when they enter prekindergarten to help their students develop English language and literacy (LEER MAS, 2001).

In its position statement "Responding to Linguistic and Cultural Diversity—Recommendations for Effective Early Childhood Education," the National Association for the Education of Young Children (NAEYC) stresses how important it is for early childhood educators to

- understand that, without comprehensive input, second-language learning can be difficult;

- recognize that all children are cognitively, linguistically, and emotionally connected to the language and culture of their home; and
- acknowledge that children can demonstrate their knowledge and capabilities in many ways.

Children who are ELLs differ in their rates of English acquisition. It is important to be supportive of a child's emotional as well as academic needs during second language acquisition. It is also important for the teacher to understand that some children, when learning a second language, experience "silent" periods; during these times, they are listening actively and gathering information about the new language. As children acquire sufficient English by listening, they enter a stage of **early production** in which they use one- or two-word phrases to communicate much longer ideas. For example, a child at this level may point and say simply "ball," meaning, "Can I please have that ball?" Subsequently, children begin **productive language use**. In this phase of second language acquisition, children use new vocabulary and their growing knowledge of English grammar. They begin to gain confidence to build sentences and express their understanding and motivation in different ways. Children who are ELLs should be encouraged to express their understanding in their home language, while teachers actively increase children's use of the English language.

Instructional Recommendations

Children who are ELLs in a prekindergarten classroom should receive instruction at their English proficiency level and in a manner they can understand. Language proficiency levels of beginning, intermediate, advanced, and advanced high are not grade-specific. Children who are ELLs may exhibit different proficiency levels in listening, speaking, reading, and writing. The proficiency level descriptors outlined in 19 TAC §74.4(d) show the progression of second language acquisition from one proficiency level to the next and serve as a road map to help content-area teachers instruct children who are ELLs commensurate with their linguistic needs (http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html#74.4). A child's current strengths and skills should serve as the starting point for new experiences and instruction.

Recommendations

- Provide an environment that is sensitive to cultural, language, and learning differences among all children served.
- Align the instruction in ESL, bilingual, and general education classrooms.
- Ensure that children who are ELLs participate in supplemental programs as warranted.
- In settings where children are learning English, whenever possible, provide books, environmental print, and other print resources relevant to children's linguistic and cultural backgrounds, alongside rich English print resources.
- Provide instruction
  - in an explicit manner with modeling (using simple language and demonstrating a concept by breaking it down so the child understands) and
  - systematically with appropriate scaffolding (using routines and providingcomprehensible input at the child's level of language proficiency so he or she can complete tasks successfully).
- Use differentiated instruction that is designed to support the individual child's learning.
- Use incidental learning (natural course, repetition, motivation, novelty).
- Provide for learning that is interactive and cognitively challenging.
- Use a variety of instructional strategies that connect school to the lives of children.
- Take advantage of cross-language connections (e.g., using cognates).
- Reinforce language structures and focus on expanding language throughout the day.
- Provide visual cues to aid understanding.
- Hold high expectations.
- Use knowledge of the stages of language development in planning instruction with emphasis on oral language development and vocabulary development.

- Encourage families to continue development of the home language while acquiring English. Both languages can develop at the same time.
- Facilitate the development of essential language and early literacy skills at the child's level of oral proficiency.
- Provide multiple opportunities for children to respond using
  - immediate and corrective feedback,
  - appropriate pacing, and
  - ongoing progress monitoring.

One Child, Two Languages, by Patton Tabors, provides the following strategies to facilitate language development:

1. Provide opportunities for language use and interaction.
   - Provide rich and interesting activities.
   - Allow quiet times to provide opportunities for children to initiate conversations.
   - Arrange the environment so all materials are not readily accessible in order to encourage children's efforts at interaction.
2. Provide focused stimulation on particular language features, such as targeted sounds, words, or forms, to be used with particular children.
3. Develop routines to help children connect events and language.
4. Stimulate social interaction among children.

Other potentially useful strategies include the following:

- Expanding and extending language input
- Using repetition to support understanding
- Talking about the here and now
- Using running commentary
- Providing scripted dramatic play
- Completing the phrase (Cloze technique)

Children tend to function at a slightly higher level in receptive language skills (listening) than in expressive language skills (speaking). Home language and literacy skills promote English language and literacy development, so optimal language development occurs when ELLs have opportunities to use language frequently.

An effective instructional design for young ELLs should include the following tenets:

1. Hold high expectations for all children's learning.
2. Ensure children feel safe and secure in their environment and in their attempts to communicate with others.
3. Create opportunities for children to interact with others using their new language in playful and purposeful ways.

   Facilitate the development of essential language and early literacy skills at the child's level of oral proficiency in English (Tabors, 2008).

To support a literacy framework in a child's native language for the development of English literacy concepts and skills, teachers must provide for ESL and bilingual instruction in the following areas:

- Word analysis
- Vocabulary
- Comprehension
- Fluency
- Writing

Strategic use of a child's home language for English instruction includes the following:

- Emphasis on universally accepted terms or labels
- Active knowledge of primary language (L1) prior to secondary language (L2) instruction
- Ability to use proper nouns
- Ability to clarify a certain point
- Ability to express a term or concept that does not have an equivalent in the culture of the other language

The process of language transfer (with literacy-based ESL and oral language beginning in prekindergarten) requires that we use what children already know and understand about literacy in their primary language to help them gain English language and literacy skills.

How to use the *Texas Prekindergarten Guidelines* with Children who are ELLs

The goal for children who are ELLs, as with all children in prekindergarten, is to provide language and literacy-rich environments that foster the mastery of all the *Texas Prekindergarten Guidelines*. Embedded within the guidelines are instructional techniques and child behaviors that are specific to ELLs . The sections are indicated by the icon and are meant to provide further guidance when working with ELLs during instruction in English. It should be noted, however, that the *Texas Prekindergarten Guidelines* are meant for *all* prekindergarten children regardless of the child's home language; the additional instructional strategies and child behaviors indicated by are supplements to the *Texas Prekindergarten Guidelines*.

iii. How *Texas Prekindergarten Guidelines* Support Instruction for Children with Special Needs

> *Inclusive early education is not just about placement in a program, but also active participation in social interactions and the development of children's abilities and skills. Children at a range of developmental levels, including children identified with special needs, should be welcomed as valued members of the community by supporting active participation in all early childhood settings.* (Underwood, Valeo & Wood, 2012)

The Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) require that all early childhood programs make reasonable accommodations to provide access for children with disabilities or developmental delays (Division for Early Childhood of the Council for Exceptional Children [DEC/CEC] & National Association of Educators of Young Children [NAEYC 1993]). According to the U.S. Department of Health and Human Services and U.S. Department of Education, "being meaningfully included as a member of society is the first step to equal opportunity, one of America's most cherished ideals, and is every person's right." Research indicates that early childhood inclusion is beneficial to children with and without disabilities. Meaningful inclusion can support children with disabilities in reaching their full potential and result in broad societal benefits, including higher productivity in adulthood and fewer resources spent on interventions and public assistance later in life (Policy Statement on Inclusion of Children with Disabilities in Early Childhood Programs, U.S. Department of Health and Human Services, U.S. Department of Education, September 14, 2015).

Prekindergarten teachers are increasingly being asked to instruct children who may have disabilities. This can include children with special medical conditions such as seizures or feeding tubes, orthopedic impairments, vision or hearing impairments, speech and language delays, and/or developmental disabilities such as Down Syndrome or an autism spectrum disorder. Teachers should approach the inclusion of children with special needs as a positive opportunity for growth and learning—in themselves as teachers, in the child with a disability, and in their typically developing peers. While teachers may initially feel apprehensive about how best to meet their students' needs, studies have shown that the inclusion of children with special needs can provide benefits to everyone involved, and that the attitude of the classroom teacher sets the tone for success.

Three areas have been identified as critical for ensuring a child can meaningfully participate in school and society. For children with disabilities to be fully integrated into and successful in school and life, they need opportunities to do the following:

- Develop positive social-emotional skills, including enjoying successful relationships with peers and adults, expressing emotions, learning and following rules and expectations, and interacting socially
- Acquire and use knowledge and skills, including early language/communication, thinking and problem-solving, imitation, use of symbols, and early literacy
- Use appropriate behaviors to meet their own needs, including adaptive or self-help skills such as toiletry, feeding oneself, and practicing safety

(Early Childhood Technical Assistance Center; "Understanding the three childhood outcomes" http://ectacenter.org/eco/pages/training_resources.asp#COSFTopics *(updated April 2012)*

Teachers who are effective in including children with special needs in their classrooms acknowledge and welcome diversity in the classroom in its many forms, including ethnicity, home cultures, languages, and physical appearance. They are able to cultivate a positive attitude, remain open to learning new skills, and engage collaboratively with the family and other members of the team to meet the needs of every child.

Planning and Preparing

Teachers must take a team approach to successfully include a child with special needs in the classroom. This includes, first and foremost, open and ongoing communication with the child's family. As the child's primary caregivers, the family has valuable knowledge about a child—what she can do, how she communicates, what assistance she may need, and what strategies and adaptations have been effective. The family also has beliefs, goals, and desires related to the child's school experience. These should be shared openly so that the family and school are aligned in helping the child work toward meeting those goals. Special education and allied health professionals are also valuable members of the collaborative team. Special educators, speech and language pathologists, occupational and physical therapists, orientation and mobility specialists (for children with visual impairments), and behavior specialists may be part of any particular child's team as the child's needs dictate. These professionals offer a wealth of practical information and expertise that can help the classroom teacher. The skillful teacher will take advantage of their assistance in planning for the child's successful inclusion and with problem solving as challenges arise. Ongoing communication among the family and all other team members is critical to successful outcomes. This can be accomplished through regular meetings, phone calls, emails, and a communication notebook that travels with the child.

Children identified as having a disability enter the prekindergarten classroom with an individualized education program (IEP) that outlines specific short- and long-term goals, specifies therapeutic services, and recommends adaptations and instructional strategies. The effective classroom teacher will be proactive in reading these documents, participating in team meetings to update or modify them, and asking questions and requesting assistance with aspects of the plan that he does not understand or is uncertain about how to implement. When the teacher has taken the time to educate himself regarding the child's disability or condition, needs, strengths, goals, ancillary services, and family perspective, he can feel prepared and confident to move forward in addressing the child's needs within the classroom setting.

The teacher's role is to support the child with special needs in ways that facilitate the child's active participation in all aspects of classroom life.

All children need to feel that they are welcomed and included as integral members of their classroom community. Feeling fully accepted and valued is particularly important for children with disabilities or delays, as their differences may be more noticeable. Being present in the room or observing their peers is not sufficient—children with special needs must be engaged to the greatest extent possible with their peers, teachers, and classroom materials throughout the school day. Research indicates that many children with disabilities may not actively participate unless they are encouraged and helped through the use of appropriate accommodations or modifications. They may not know what to do with toys or materials. They may be accustomed to observing more than participating. They may have motor or language impairments that make it difficult for them to initiate or sustain participation and interaction with other children. It is important for teachers to observe each child's style, note the factors that seem to be hindering active participation, and work with the child's family and other team members to devise strategies to address these issues. Examples of such strategies may include modifications of materials (e.g., adding a handle or textured material to an object to make grasping easier), changes in the environment (e.g., creating more space in the dramatic play center for a child with a walker to move around), providing explicit instruction and demonstration of how to use materials, making use of the child's assistive technology devices (e.g., a speech-generating computer), or helping typically developing peers to communicate with and include the child with special needs.

The effective teacher helps typically developing peers build comfort and friendships with their classmates with disabilities.

Prekindergarten-age children are full of curiosity and interest in their peers, including those with obvious differences. In a safe, supportive setting, they will feel free to ask questions and express interests and concerns about their classmates. However, typically developing peers may not know how to approach or respond to the child with a disability. They may accept the child's presence but not initiate invitations to play together without

a teachers' assistance and support. With appropriate information and guidance, teachers can help typically developing children to understand, accept, welcome, and include each child into the classroom community.

The effective teacher strikes a balance between providing information and not overemphasizing differences and disabilities.

Teachers can explain in simple language why a child is behaving or moving or communicating in an unfamiliar manner: "Charlie uses his walker to help him balance when he walks." "Miranda wears her hearing aides to help make sounds louder." "Steven is still learning to talk. He makes that sign to say *yes*." They also point out common interests, similarities, and strengths in the child with a disability. For example, teachers may make statements like the following: "Abby, Fernando really likes cars too. Maybe you could build a garage for your cars together." "Hey, I just noticed that Rafael and Sammy have on the same shoes today! You both like those special ones that light up when you walk." "Tonya, did you know that Yolanda is really great at puzzles? Let's see if she can help you find that missing piece." Teachers should also look for opportunities to place the child with a disability in a leadership or helping role, so that the child is not viewed by peers as only being the recipient of help.

Every child should have a way to communicate. If a child you are working with is not verbal, ask the team, especially the speech/language pathologist and parents, how the child gets his needs met, asks questions, and makes comments. If the child uses pictures, photos, or other communication devices, the child must have access to those at all times. Teachers may need to facilitate interactions with children who have communication difficulties. When a child cannot express himself verbally to other children, more adult support is needed to help facilitate communication or communicative efforts. Teachers should also recognize that children with communication difficulties may experience frustration when they cannot express what they need or want. These feelings may lead to acting out or aggressive behaviors. When teachers understand these maladaptive behaviors as the result of frustration and limited communication skills, they can focus on teaching the child more acceptable ways to communicate and can help other children in the classroom to communicate more effectively with the child.

Are children with special needs expected to meet the Texas Prekindergarten Outcomes?

The answer to this question is "It depends." Some children can be expected to work toward the same level outcomes as their typically developing peers. Other children may be able to meet these standards with adaptations in materials or instructional strategies. There are also some children whose cognitive or language impairments are significant enough that goals must be modified in order to be realistically achievable. It is important, however, not to assume that a child cannot meet the outcomes in each domain without conducting a careful appraisal of the individual child's capabilities and needs. If the child has an existing IEP, it can be used when the *Texas Prekindergarten Guidelines* are carefully reviewed to determine which are possible for the child to work toward without modifications or accommodations, which are attainable with some accommodations, and which will require modifications. These decisions require thoughtful consideration by the team, which includes the child's family and other professionals. Decisions resulting from this process should be documented in writing so that all members of the team are clear about how the child's needs will be met, what types of accommodations and modifications will be made in different domains, and how his or her educational goals will align with the *Texas Prekindergarten Guidelines*.

Skillful teachers observe all children for signs indicating the need for developmental or medical evaluation.

A classroom teacher may be the first person to notice unusual behaviors or possible delays in a child who has not yet been identified as having a disability or special need. Since early identification and intervention are most effective, teachers have a responsibility to share their observations and concerns with the child's family and to encourage them to seek an appropriate evaluation. Teachers should start by observing and recording the behaviors that seem unusual or raise concern. The teacher should describe observations in terms of behaviors rather than suggesting a diagnosis. For example, the teacher might say, "I have noticed that Alaina often tunes

out and does not respond when I call her name. She also avoids eye contact with me and with other children," rather than "I think Alaina is autistic." The teacher should then schedule a time to sit down with the child's family or guardian(s) and share these observations and concerns. Teachers should provide families with information about how to locate an appropriate provider, such as through the local school district, if the family decides to pursue an evaluation.

iv. The Learning Environment: Physical Arrangements, Activities, and Social Relationships

There is strong consensus in the field of early childhood development that it is important to consider the mutuality of influences between children and their environment—the people they interact with and the characteristics of the activities and physical space they share with others.

High quality prekindergarten settings include positive characteristics of adult-child interactions such as sensitivity, stimulation, self regulation, responsiveness to the children's needs and signals, positive affect, and frequent verbal and social interaction. Factors important for a child's school readiness also include the amount of time he is read to, small group and one-to-one teaching interactions, engagement with functional and environmental print, exposure to well-planned lessons, and play experiences that promote literacy, math, and science. In addition, other significant factors described as key for an effective learning environment include the physical setup and richness of a child's classroom and home care environment.

Physical Arrangement of Spaces: Promoting Positive Early Childhood Outcomes

Effective classroom management can set the stage for exciting possibilities for children's learning. This includes attention to the organization of the space and furnishings, predictable daily routines, and responsive interactions between teachers and children. While these factors often are described as distinct, their interconnection is critical for promoting effective teaching and learning.

Successful teachers know that the arrangement and management of the early childhood classroom have direct effects on the kinds of behaviors children exhibit as they live and work together. The difference between chaos and an orderly atmosphere that facilitates learning depends in great part on how the teacher prepares the environment. That preparation involves what happens before school begins, when children arrive and depart, when schedule transitions occur, when children interact freely with equipment and materials, and when conflicts arise.

At the beginning of each school year before the children enter the classroom, the successful teacher must set up the environment properly. A well-planned physical room arrangement rich with environmental print impacts language development and the interactions among the children. Children enjoy small, cozy spaces with easily accessible materials and books. Much more talking and many fewer accidents can occur with this arrangement than with any other.

Components of such an environment include the following:

- Protecting children's health and safety
- Supporting children's physiological needs for activity, sensory stimulation, outdoor experiences, rest, and nourishment
- Providing a balance of rest and active movement throughout the day
- Providing materials that reflect the children's culture and background
- Protecting children's psychological safety (e.g., children feel secure, relaxed, and comfortable rather than disengaged, frightened, worried, or stressed)

Setting Up the Physical Space

Teachers must consider a number of factors and components of the physical space when setting up the classroom. The strong consensus regarding these factors is highlighted in the 2000 report *Eager to Learn: Educating our Preschoolers.*

- **Traffic Patterns:** Furniture and play center arrangement should be based on which areas children use most often and which play centers or areas should logically be located close to the door, to the sink, to the teacher's desk, etc.
- **Materials Placed at the Children's Level:** Things the children use should be put where they can reach them. When the children can access needed materials without having to ask the teacher to get them, they become more independent and activities proceed more quickly and smoothly.
- **Organized Storage:** The old adage "A place for everything and everything in its place" strictly applies in the early childhood classroom if the teacher hopes to avoid chaos, confusion, and a messy room. Children need the security that organization provides. All materials should be labeled to assist with organization and to reinforce literacy skills. When children help to organize their world, they learn classification skills and a sense of satisfaction from being independent and self-sufficient.
- **Adequate Equipment and Supplies:** Centers should have certain basic equipment and an ever-changing variety of materials to intrigue the children.
- **Clearly Delineated Areas:** Each area should have low and well-defined boundaries. Low boundaries allow the teacher an unobstructed view of the children at all times and give the room an open, interactive feel.
- **Coordinated Placement of Centers:** Teachers should separate noisy areas from quiet areas and place interlinked centers, such as the dress-up and kitchen areas, near each other to encourage creative interaction.
- **Small-Group and Independent Work Areas:** Separate learning areas are important for facilitating self-directed but teacher-guided hands-on activities on a variety of subjects and skill levels. In small groups, a child has the additional benefit of interacting with other children on a personal and rotating basis.
- **Large-Group Areas:** Early education classrooms need an open area large enough to accommodate all the children at one time for whole-group interactions. Specific considerations for this space include whether the children can sit comfortably or perform large muscle movements without feeling crowded and making the area free from distractions so that the children will focus on the large-group activity.

Classroom furniture should be child-sized, and labels and objects placed strategically where children can read them. The classroom should be clean, well maintained, interesting, and attractive. The classroom should be colorful and well lit and be decorated primarily with examples of children's and teacher's work displayed at the child's eye level and, when possible, supplemented with culturally and linguistically diverse posters, pictures, and books, depicting real people of differing abilities.

Using Physical Space to Promote Language and Literacy

Creating a classroom community that promotes children's language and literacy development requires that language and literacy materials, such as books, writing utensils, and printed material, are located throughout the classroom. The environment and teaching materials should be reflective of the children's needs, culture, and language of instruction. Techniques common to the prekindergarten classroom, such as thematic units and dramatic play activities, can promote literacy development when integrated across classroom activities. A high quality oral language and literature-rich environment addresses a few key research-based findings.

Studies show that providing even the most basic print-rich environment requires a minimum of five books per child in the classroom. Access to a wide array of print provides opportunities and tools for children to see and use written language for a variety of purposes. Second, for hands-on reinforcement of language and literacy skills, child-directed learning areas should have multiple materials that make connections to relevant literature. In classrooms with children who are learning English, the environmental print must include familiar print that is found in the places, objects, and materials that children encounter every day. The print in the classroom often serves as the earliest source of print awareness for young learners. Labels with words and pictures are

everywhere in the classroom so that children constantly connect written language with the things they represent.

Organization and Routine of Activities: Promoting Effective Learning

Classroom management, or the manner in which activities are conducted throughout the day, is closely linked with the physical arrangement in achieving a successful environment. Children need an organized environment and an orderly routine that provides the overall structure in which learning takes place. A variety of opportunities for children to have meaningful experiences should be intentionally planned.

Classroom management is important for the purpose of setting routines. Components can include color coding, daily plans, and classroom rules expressed with clear expectations, consistent use of rules, and frequent feedback. Children feel more secure when there is structure, so a well-planned day with built-in supports is critical to the children's behavior, well-being, and receptiveness to learning.

Use of charts can help with classroom management. Charts help order the daily routine, allow children to use print in a meaningful way, and provide examples of print around the classroom. Management charts that incorporate pictures or icons help make a visual impression upon children. The following are some examples.

- **Rules Chart:** Use strategies to ensure that children understand expectations about classroom rules, activities, and directions.
- **Helpers Chart:** Aspects of the daily routine can promote social competence by providing opportunities for children to help with tasks. Encourage children to read the chart by listing as many jobs as possible and changing the jobs frequently. Children should be involved in identifying the jobs and watching the teacher create the chart.
- **Attendance Chart:** Another means of teaching independence and responsibility while freeing the teacher for more substantive activities is to have an attendance chart during large-group time; the attendance helper can count and record the number present and absent.
- **Daily Schedule Chart:** While often an intuitive practice, the use of a daily schedule chart to give children a visual plan of what their routine will be on any given day is supported by research. The teacher can explain the chart, pointing out the words and the matching icon or picture of the activity, so that the children can associate the activity with the printed word.
- **Learning Area Planning Chart:** These charts have words and pictures to illustrate the purpose of each learning area. The charts provide children with an opportunity to make choices and to actively participate in their own learning. Each planning chart could include the name of the learning area, an icon representing it, and a number that tells the children how many can use that area at one time.

Teachers play a critical role in helping children learn classroom routines through modeling, thinking out loud, and sharing responsibility. These supports should continue for several weeks, with the teacher acting as the children's memory of what they are supposed to do, praising early attempts, and encouraging children to gradually take more ownership of the routines. The initial time put into this effort results in children who are much more independent as the year goes on, allowing the teacher to spend time teaching and interacting with children. Along with this gradual increase in what children are asked to do independently, teachers can set up the environment for success by doing such things as opening one center at a time in the beginning of the year, continuing to explain new materials as they are placed in the centers, and using labels to clearly help children know where items belong.

Classroom Activity Planning: Creating Opportunities for Interaction as Well as Self-Discovery

Decisions about curriculum and adult interaction with children should be as individualized as possible. Teachers must be attentive to the manner and pace of each individual child's learning so that learning can be fully supported. At the same time, productive interaction, understanding, and cooperation with other children and adults are crucial skills for children to develop at this age. Supporting children in learning to adapt and function successfully in a classroom setting is a key component of early childhood education. With the principles of individual instruction and instruction with adults and peers in mind, prekindergarten programs should include opportunities for both individual and group activities to allow for independent exploration and play as well as socialization.

Large-Group Instruction: Teachers may often gather the entire class together to provide information, support collaboration, and listen to ideas. By the end of the year, large-group sessions should occur two to three times per day and last 15–20 minutes.

During this time, the teacher is intentionally building a classroom community through the following activities:

- Engaging in a variety of circle games
- Delivering a morning message
- Going over the schedule for the day
- Conducting a read-aloud
- Allowing the children to share news
- Engaging the children in a language or phonological awareness activity
- Announcing a "Special Person of the Week" or a birthday
- Leading the children in a musical activity, such as a song
- Introducing an instructional theme

Small-Group Instruction: Small-group learning activities with the teacher providing intentional instruction about new concepts may be one of the most effective ways to promote young children's learning. Research shows that children learn math, literacy, and language concepts best when teachers support their attention and growth in gaining new knowledge in small groups (no more than six children). These activities are effective if the teacher engages children with targeted activities for short periods of time (10–15 minutes). The activities, whether they are meant to facilitate the learning of specific cognitive (such as math or literacy) or social skills, need to be engaging, with children taking an active role using manipulatives, books, and pictures as opposed to worksheets or flashcards.

Individual Learning Areas: Children also learn effectively when working in separate, set-apart learning areas. These are not places to go for playtime activities after the "important" instruction. In small-group learning areas, children cement the direct instruction with guided exploration and hands-on experience. With a little creativity, even home care environments can include effective learning centers. Every learning area should have the following:

- Fun, playful, and purposeful activities
- A literacy connection
- Writing materials
- An opportunity for verbal conversation with an adult or another child

Developmentally appropriate programs provide opportunities for children to broaden and deepen their behavioral knowledge. They provide a variety of firsthand experiences and help children acquire symbolic knowledge by representing their experiences in a variety of media, such as drawing, painting, dramatic play, and verbal and written descriptions. Furthermore, while small-group learning schedules involve a lot of time for child-directed learning, the teacher is as active as the child in directing learning and supporting discovery. In fact,

the teacher provides and encourages the critical interactions that turn play into learning. Research suggests that the following seven types of centers are effective:

1. Pretend and Learn Center
2. Writer's Corner
3. Library and Listening Center
4. Construction Center
5. Math and Science Center
6. Creativity Station
7. ABC Center

These areas should integrate a variety of different learning concepts and should incorporate mathematics, science, phonological awareness, reading aloud, motivation to read, letter knowledge, written expression, print and book awareness, and language development. Well-stocked learning areas supplied with books and other educational materials will help promote the integration of these academic concepts. It is important that children have experiences with books that help them understand the world they live in as well as those that reflect their own culture. Whenever possible, classrooms should include books that are culturally and linguistically relevant in learning centers.

Data from behavioral science literature have long pointed to the need to create safe, secure, supportive environments for infants and young children. Overall, a positive and effective classroom environment makes classroom management easier, gives children ownership of the classroom and the power to manage themselves, respects each child's individuality, and recognizes and promotes taking responsibility in the classroom community. This type of learning-conducive environment creates positive impacts on young children's development, preparing them to acquire skills needed in both school and life. A properly arranged and maintained classroom provides the essential foundation upon which a teacher can build to effectively promote children's success and school readiness.

Establishing a Schedule

Schedules give children a sense of structure throughout their day so they can anticipate when specific activities will occur and how long they will be engaged in these activities. This sense of anticipation helps children begin to regulate their attention and emotions. It gives them a plan for their daily routine.

To best use a daily schedule

- list each activity with a picture (time is optional),
- draw children's attention to the schedule as activities change,
- have children refer to the schedule to identify what activity comes next, and
- post the daily schedule at the children's eye level.

What happens daily in a prekindergarten schedule?

Every day should include the following:

- Phonological awareness activities (minutes throughout the day)
- Reading aloud (twice a day per half-day session, three or more times per full-day session)
- Writing (teacher modeled, shared, interactive, guided, and independent)
- Math concept development
- Language development (incorporated throughout the day, especially during the read aloud session)

The following are examples of suggested schedules.

Half-Day Schedule

Time	Activity
	Child arrival & independent activities
10 min	Opening (for example, pledge, helper chart, calendar [2–3 minutes], songs with movement)
15 min	Circle time (for example, read aloud, introducing center activities, talking about children's experiences)
60 min	Centers/small-group time (includes child-directed play in play centers)
15 min	Snack time
15 min	Circle time (for example, science and math activities, read aloud)
30 min	Outdoor time (for independent play and teacher-child conversations)
15 min	Circle time
10 min	Closing/Reflection

Full-Day Schedule

Time	Activity
	Child arrival & independent activities
10 min	Opening (for example, pledge, helper chart, calendar(2–3 minutes), songs with movement
15 min	Circle time (for example, introducing center activities, talking about children's experiences)
60-90 min	Centers/small group instruction time (includes child-directed play in play centers)
15 min	Snack time
15 min	Read aloud
20 min	Outdoor time (for independent play and teacher-child conversations)
15 min	Circle time (for example, science, math activities)
30 min	Lunch time
15 min	Read aloud
	Rest time
15 min	Movement/large motor/music
15 min	Circle time
30 min	Centers (for example, child-directed play, science discovery, child-directed reading or writing time)
25 min	Outdoor time (for independent play and teacher–child conversations)
10 min	Closing/reflection

In addition to teacher guidance and conversation during learning activities, teachers can assist children's learning during other times of the day, such as outdoor time and snack or meal time.

Suggestions for Outdoor Time

- Move close to a group of children and describe what they are doing. ("I see Josh and William running very fast!" "Juan and Sandra are building a big sand castle together.") This is a good time to teach action words and descriptive words such as *climbing, swinging, running, building, shouting, chasing, racing, riding and fast, quick, powerful.*
- Ask the children open-ended questions as they are playing. ("Marvin, how does it feel when you swing high?" "Keshia, what are you making with your sand pile?")
- Point out interesting things outdoors that children might not have noticed, such as a bird's nest in a tree, a bug crawling in the grass, or workers building a house. Invite children to talk about what they see and what they think is happening.

Suggestions for Meal Time

- Show children each part of the meal they will be eating, and ask them if they know what it is. If they don't recognize or name it correctly, name it for them and encourage them to say the name of the food or drink.

- Label utensils and other items on the table. Use these words throughout the meal: *plate, cup, spoon, fork, napkin, bowl, pitcher, serving spoon*
- Encourage the children to describe and talk about the food they are eating. For example, they may be eating *round, orange carrots; long, skinny, green beans; or soft, white bread.*
- Make these descriptions spontaneous and creative rather than just encouraging repeating phrases. Encourage the children to come up with their own descriptions of their food, such as *My tomato looks like a ball! My bread is squishy like a sponge.*
- Take opportunities to talk to the children about table manners, such as staying seated while eating and not talking with food in their mouths.
- Use meal time as a conversation time to reflect on the activities children completed earlier in the day, rather than just telling them to eat so that it can be a time for developing rich language and conversational skills.

v. Monitoring Children's Learning and Development:
Ways that Provide Feedback and Evidence of Success

The systematic monitoring of children's progress has an important role to play in revealing a child's prior knowledge, development of concepts, and ways of interacting with and understanding the world.

Progress monitoring is a way of discovering what children are interested in, what they are learning and having difficulty learning, and how they are changing over time. Armed with this knowledge, teachers can choose a pedagogical approach and curricular materials that will support the child's further learning and development. School readiness behaviors are important to assess because they represent authentic and legitimate skills. They are too important for teachers to ignore or only "guesstimate."

Continued progress monitoring provides teachers with the feedback they need to identify which parts of the curriculum need modification. This constant feedback mechanism allows teachers to provide the most meaningful and effective educational experience possible since it allows them to constantly focus on and respond to the children's changing needs. Progress monitoring is a critical component of effective teaching. Prekindergarten teachers must base their instructional choices on what each child brings to the interaction in order to effectively promote learning. Broadly conceived, assessment consists of a set of tools for identifying each child's skill level, learning how children solve everyday problems and conflicts, how they change over time, and what motivates them.

Whenever possible, skill levels of children who speak a language other than English should be assessed in both their home language and English. Measurement of home language skill level is essential when children are enrolled in bilingual instructional programs.

Informal Assessments: Tracking Children over Time

Prekindergarten teachers have a number of informal assessments at their disposal to inform and differentiate instruction and to document progress over time. Informal assessments include the following:

- Ongoing observations—watching children work and play in a variety of settings
- Systematic observations—choosing specific children and observing them for specific purposes and/or during specific timeframes
- Reflections—recording thoughts about observations or children's work samples
- Anecdotal notes—recording and dating notes about children's learning and behaviors in an organized way
- Checklists—observing individual children for specific behaviors/skills based on a developmental continuum, perhaps using symbols to indicate degree of progress
- Portfolios—collecting and dating authentic work samples over time
  Portfolios provide a powerful-overview of a child's development and serve to guide instructional decisions, encourage children's reflections on their own learning, and provide opportunities to share information about children's learning with families.

While informal assessments and progress monitoring provide immediate feedback for teachers, this type of assessment has limitations. Informal assessments cannot

- determine baseline level of functioning,
- provide norm-referenced information,
- determine if the child has age-appropriate skills,
- determine if a child has a learning problem, or
- offer clearly reliable and valid assessment results.

Formal Assessments: Comparative Data

The question of how to assess children is multifaceted and influenced by a number of factors. For example, if a teacher wishes to determine whether a child has age-appropriate school readiness skills, she needs to use a standardized measure. This means the assessment has a common set of questions, tasks, and materials, and the child's score is based on a normative sample of children. This is important because the child's performance can be related to the performance of a large number of other children of the same age. Sometimes standardized measures are referred to as formal assessment approaches and include a variety of engaging tasks used for different purposes. Formal assessment can compensate for the limitations of informal assessments.

Formal assessment approaches include the following:

- Screening Measures—brief assessments of skills that are important early indicators of later school competence
  These measures provide information on entry level skills at the beginning of the prekindergarten year.
- Progress Monitoring Measures—brief measures that are conducted on a routine basis to provide information on what children are learning and rates of improvement across the prekindergarten year
  Results of progress monitoring measures should be predictive of more lengthy standardized measures. As progress monitoring measures are brief, teachers can conduct them at least three times in a school year and learn who is or is not demonstrating adequate progress. With this knowledge, teachers do not have to "guesstimate" what children are learning and can adapt their curricular activities and instructional approaches to be more responsive to the children's needs.
- Diagnostic Assessments—assessments used to obtain a more in-depth analysis of a child's strengths and weaknesses in order to determine what learning supports are needed
  Children with mental, physical, or emotional difficulties who may require special services benefit greatly from early detection and diagnosis. For such children, diagnostic assessments can be very helpful. While diagnostic assessments do not determine the underlying reasons for a child's lack of progress, they can suggest a special need. There are many reasons a child may have difficulty with the early acquisition of academic or social skills: health, unidentified disabilities, family concerns, or social and emotional difficulties. Fortunately, specific assessments designed to identify underlying problems and disabilities exist and should be used if necessary. Once teachers discover the underlying causes for a child's difficulties in learning, they can seek appropriate assistance for the child and the child's family.

Effective prekindergarten programs should use multiple forms of assessment to track individual children's progress in a scientifically reliable way and to inform instruction. Assessments, when used carefully and appropriately, can resolve—rather than create—educational problems. Because young children experience incredible growth and learning at an uneven and sometimes unpredictable pace, teachers and caregivers must have the necessary training to use assessment data well.

Educators and program directors must keep any assessments manageable by planning a reasonable time frame for collecting assessment information, selecting only a few of the most informative assessments, and collecting information on a systematic basis. The assessments chosen should align with both the specific curriculum used in the classroom and the state's early childhood guidelines.

Results from a variety of assessments should be used for purposeful planning of a child's prekindergarten experience. For example, teachers can respond to the data received from assessment by changing or enriching play centers with activities that better serve the needs of the children or by providing additional read aloud sessions if the assessment points to a need for such changes. Furthermore, assessment can indicate which children need more one-on-one attention for particular skills or motivate a teacher to consult with other

teachers and supervisors for suggestions on new instructional strategies. Whatever the results, they should be shared with families, and the assessment should be repeated periodically to evaluate the children's progress.

Skilled early childhood teachers embed systematic observations and other assessment in children's everyday activities and interactions; children with skilled teachers do not feel examined or tested and will benefit from a tailor-made educational experience. With the knowledge derived from assessments, teachers and others can make certain that young children receive essential services and supports, including further assessment and intervention when necessary.

vi. A Developmental Approach to Promoting School Readiness

Children build competencies as they progress along their individual developmental pathways.

When implementing the *Texas Prekindergarten Guidelines*, it is important to keep in mind that children master new knowledge and skills through a series of developmental processes that evolve over time. While effective teachers plan lessons and structure their classrooms with an awareness of the ultimate goals they want children to achieve, they also recognize that children at different developmental levels have different capabilities, and expectations need to be adjusted accordingly.

Prekindergarten children mature over time in parallel areas such as length of attention span, expressive vocabulary, behavioral self-control, problem-solving skills, fine-motor coordination, and working memory skills. These diverse aspects of development impact—directly and indirectly—children's ability to understand particular concepts and carry out specific activities successfully. For example, a three year old may be learning to sort and classify objects by color or size, while a four year old can learn to sort objects based on their beginning sound (such as /pig/, /pot/, /puzzle/). A three year old may be working on motor skills such as jumping, standing on one foot, and throwing a ball, whereas a four year old can learn to follow directions such as "hop two times" or "walk quickly," and is learning to throw a ball with aim. In the social-emotional domain, younger prekindergarten children are still practicing basic skills such as taking turns and sharing toys without hitting or grabbing. Older prekindergarten children are more able to resolve conflicts verbally (though they often still need teacher support to do so) and engage in cooperative play. Thus, what may be appropriate for four and five year olds may not be appropriate for three year olds. This attention to children's varying developmental needs and self-regulation skills is critically important. Also, as many early childhood classrooms have children of mixed ages (three- to four-year-olds) flexibility in learning and play activities within a classroom will often be necessary to optimally support each child.

Teachers individualize instruction to facilitate children's developmental progress.

Teachers are encouraged to take a developmental perspective in implementing the *Texas Prekindergarten Guidelines*. Teachers should meet children where they are and provide information and activities at a level that children can readily understand and engage with. This means building children's skills over time and working toward the school readiness outcomes step by step as children demonstrate mastery of beginning-level skills. Teachers should have the outcome skills in mind but need to prepare children to meet those goals through scaffolding experiences and activities that are appropriate for each individual child's current developmental levels and capabilities.

Effective teachers know that each child is unique and can be appreciated as an individual with a unique style, temperament, set of interests, and aptitude for learning. Teachers should have high, positive expectations for all children, but this does not mean that all children should be expected to learn at the same rate or in the same way. There may be some advanced three-year-olds who are ready to meet some of the *Texas Prekindergarten Guidelines* outcomes right now, while there are four-year-olds who seem far from attaining these outcomes. Teachers should make use of available assessments and daily observations to determine where each child is in terms of mastering skills in the various domains. They can then use this information to plan lessons and provide activities that can be individualized to the needs of children who are at varying skill levels.

Integration of developmental domains and curriculum content supports children's learning.

Developmental research also tells us that children's acquisition of concepts and skills is not always linear and evenly paced. Children need to be exposed to new concepts multiple times and across a variety of contexts in order to solidify their understanding. A teacher models, demonstrates, and "thinks aloud" so the children

understand the thoughts behind what the teacher is doing. Then, children are provided opportunities to practice the skill or concept with the teacher beside them to guide their practice, scaffolding or supporting the children's learning so they are successful. The teacher provides many opportunities for practicing the concept, moving the concept from something the child can do slowly, to something that he can do quickly and easily. Thoughtful planning is required for children to have the multiple opportunities needed for this transition from a task that is hard to a task that is very easy for a child to accomplish without assistance.

Gradual Release Model

1. **Teacher** models, demonstrates and thinks out loud. **Child** watches.	2. **Teacher** does task. **Child** helps.
3. **Child** does task. **Teacher** helps.	4. **Child** completes task independently. **Teacher** watches.

(Pearson and Gallagher, 1983)

Children must also have sufficient opportunities to practice new skills in a variety of ways and in different settings. A rich curriculum that integrates materials and concepts across different parts of the day provides such opportunities. For example, a child learning about shapes may complete a shape puzzle during center time, sort and count beads of different shapes during a small-group math lesson, and then use a cardboard or plastic "magnifying glass" during outdoor time to "spy" shapes of objects on the playground (such as a rectangular slide, a triangular roof on a playhouse, a circular wheel on a riding toy). When concepts and vocabulary words are reinforced across contexts and over time, children can make use of their attention, memory, vocabulary, visual observation, and motor skills to build internal mental representations of complex concepts such as "shapes."

Finally, effective teachers recognize reciprocal, interactive relations among the different areas of development. They recognize, for example, that when a child is emotionally anxious or frustrated, she will have more difficulty using adaptive problem-solving skills or following directions in a group activity. When children are presented with activities that are too far beyond their capabilities, they are more likely to show avoidance, passivity, or acting-out behavior. On the other hand, when children are provided with activities that are interesting, challenging, and manageable for them, they experience pride in their success and are eager to learn more.

Teachers can promote children's school readiness best by integrating the prekindergarten guidelines and outcomes into their instructional approaches, while viewing the child as an active learner who is continually developing, adapting, synthesizing new information, and striving toward competence.

Linking the *Texas Prekindergarten Guidelines* to School Readiness

vii. Effective Practices for Promoting School Readiness

Key concepts involved in each domain of prekindergarten learning must go hand in hand with information and skill acquisition.

A key to developing effective practices for promoting school readiness is the integration in the classroom of five key elements, each known to be important to young children's learning and development. While each adds to a teacher's ability to build a strong foundation for children's learning, their influence when combined into an integrated and comprehensive whole is greater than the sum of the parts.

The following five elements are key to effective prekindergarten programs:

- Consistent use of a responsive interaction style to support learning
- Content that builds cognitive and social skills known to predict school readiness
- Planning that takes advantage of recent brain research for memory development
- A balance of teaching strategies
- Flexible groupings of children for learning activities, including one-to-one, small groups, and large groups

Responsive Interaction Style

The socio-cultural theory provides an excellent framework to guide teachers in their efforts to support young children's learning. A hallmark of this theory is the importance it places on the child's ability to learn at higher levels with specialized support, referred to as scaffolding, from more competent others (e.g., families, teachers) than occurs when children attempt to learn on their own. When the responsive interactions occur, young children's social and cognitive skills are placed on more positive trajectories.

A considerable number of studies have examined teacher behavior and teachers' interactions and relationships with children. That literature supports the teachers' anecdotal assertion: the way in which teachers interact with young children affects the children's social and emotional outcomes either negatively or positively depending on the quality of the interactions. In light of this, the National Center for Children in Poverty, along with numerous other institutions, recommends a policy of quality early childhood care and learning experiences in classrooms with warm teachers and a predictable, stimulating atmosphere.

Responsive interpersonal relationships with teachers nurture young children's dispositions to learn and their emerging abilities. Good teachers acknowledge and encourage children's efforts, model and demonstrate behaviors, create challenges and support children in extending their capabilities, and provide specific directions or instructions. Children are eager and excited to learn, and encouraging this excitement helps them learn new vocabulary, letter names and sounds, and number and science concepts. In fact, close teacher-child relationships in prekindergarten are related to greater phonemic awareness and better language, communication, and math skills, as well as more positive attitudes and perceptions, better social and thinking skills, and fewer problem behaviors.

Responsive and appropriate interactions that scaffold children's learning require the following:

- Being sensitive to a child's level of understanding
- Providing responses contingent on a child's signals
- a Maintaining and building on a child's focus
- Using rich oral language
- Avoiding excessive restrictions on behavior

- Providing choices and adapting to a child's changing needs

By vigilantly observing and evaluating children's needs and happiness in their environment and by providing responsible and responsive care, a teacher establishes a warm and caring environment that helps the child feel comfortable and facilitates the learning process.

An effective teacher shows respect for each child's individuality.

Responsive Interactions: Warm, Sensitive, and Contingent on Children's Signals

Early childhood educators set the tone for every interaction that occurs within their classrooms. It follows that cultivating a warm, caring atmosphere will allow children to explore and discover their world without fear of punishment or ridicule. In creating this environment and bolstering children's self-esteem, teachers help children achieve school readiness.

Teachers can cultivate responsiveness and warmth in their interactions with children when they

- listen and respond with warmth and sensitivity to children's feelings, ideas, and opinions;
- use positive language that builds children's self-esteem;
- show respect for children's linguistic and cultural individuality;
- help children learn self-control by supporting emerging emotional coping skills;
- offer varied opportunities for children to make choices and decisions;
- give oral directions after using an established signal to gain children's attention and make sure children understand what is being required of them;
- encourage children to manage their behavior by setting up a supportive environment (room arrangement, management charts, etc.);
- establish classroom rules that are clear, simple, and developmentally appropriate;
- use creative problem-solving in all parts of the curriculum; and
- use the problems that naturally occur throughout the day to model a constructive problem-solving approach.

A responsive style needs to be combined with an effective plan for teaching the content critical to school readiness.

Responsive Style + Content Plan

A working knowledge of the major cognitive and social areas of development, along with the *Texas Prekindergarten Guidelines*, should serve as a guide for the planning of prekindergarten curricula. A content plan needs to take advantage of opportunities to build multiple areas of learning (e.g., math, social, language) within a single lesson, activity, or experience. For example, in an effective read aloud activity, the teacher builds vocabulary and background knowledge as he highlights characters or key concepts in the book. His questioning promotes language expression as the children attempt to describe their thoughts about the book. The "give and take" among the children and their ability to cooperate as he requests that they wait their turn and listen to each other's responses supports their development of social competence. As the book may be about early math, science, history, or literacy (such as an alphabet book), the read-aloud activity builds learning in any one of these important areas.

Of course, the children's ability to learn from this multidimensional activity is dependent on the teacher's use of the key components of a responsive style as previously described. In this example, the children's learning can be advanced to a greater extent within this teacher-guided book reading activity than it can in an independent activity, such as a child looking at a book on his own. This only occurs, however, if the teacher's reactions incorporate rich and appropriately paced language input and are warm, supportive, contingently responsive to

the child's signals, considerate of ELL development, and used in ways that build on the child's focus of attention. When the content areas known to predict school readiness are presented in this responsive style, children make great progress and can leave prekindergarten ready for success in school.

Responsive Style + Content + Planning Effectively Build New Memories

Before outlining general ways to build language, literacy, math, and social skills, the teacher can better assure that children learn—build sustained knowledge—through effective planning and implementation of activities that provide new information. It is well documented that children learn a new concept (such as the name and characteristics of a new object) if they have closely repeated experiences.

For example, a child might hear for the first time about an object during a science or a read-aloud activity. In the first exposure, the child hears about and sees characteristics of the object. Touching the object helps the child remember more about it. This new vocabulary word and what it means is more likely to be learned if the child has multiple related exposures or experiences with it that occur close in time to the first exposure. Attention to this as early childhood teachers plan the activities across a day, week, and month will support effective teaching. The use of rich themes (e.g., underwater sea life, things that fly, gardens, or construction) makes building repeated related experiences easier. When children learn about gardens across many days through related but varied activities, they begin to make connections among the tools needed to plant in a garden, the flowers and vegetables that grow in gardens, gardening clothes (gloves, hats, boots), and the purpose of soil, nutrients, sun, and water.

It is easy to see from this example how much fun a teacher can make learning about gardens. With thoughtful, intentional planning and playful activities, new vocabulary skills are promoted. As children think about the beginning letters and sounds in the new words, they are exposed to literacy, and math occurs as they count out the seeds they will plant. Of course, social/emotional skills are supported as they share their garden tools with their classmates, take turns digging or describing plants, laugh together as they make up silly alliterations or sing rhyming songs ("Mary, Mary, quite contrary, how does your garden grow?").

This approach assures effective learning, in part, because it incorporates the three Ps.

- Purposeful
- Planned
- Playful

Teachers with attention to the three Ps, will always ask, "What is the purpose of this?" before they put an activity in their lesson plans. The answer should be that it

- builds one or more of the skills necessary for school readiness,
- expands and builds on children's current level of understanding, and
- encourages the understanding of new information that has direct links to what children will need to succeed in kindergarten.

If the activity meets these criteria, careful planning occurs and includes the following:

- Selecting fiction and nonfiction books for group readings and their placement in the centers so that new knowledge is encouraged
- Selecting activities that take advantage of the overlap among language, literacy, and math skill domains
- Identifying fun phonological awareness games to use when moving children from one activity to another
- Ensuring books, materials, activities, games, and conversations are engaging

Implementing Effective Plans + a Balance of Teaching Strategies

Two teaching strategies that often are contrasted are “direct” and “indirect” instruction. Direct, or explicit, instruction sometimes has been discouraged in early childhood settings because it is frequently associated with high structure or with scripted approaches. This is unfortunate, since directly instructing children about the meaning of new words or how something works is an important aspect of supporting their learning. Rather than assuming this explicit form of instruction always equates with a “skill and drill” approach, early childhood teachers can observe and determine those times when children will benefit from direct instruction about interesting new areas. Given the young age and limited attention span of four year olds, this type of instruction needs to be relatively short. It should encourage child participation through questioning, the use of “hands on” materials (rather than worksheets), and physical movement.

Indirect instruction has been interpreted in numerous ways. To some it means that children have the freedom to choose what they want to do. With this interpretation, children often spend a lot of time in a variety of centers, exploring the materials on their own or with other classmates. Sometimes those centers look the same across the year; other times they might be refreshed with new materials.

For others, guided instruction of children’s efforts in the centers is included in their interpretation of child-directed learning. In this case, the teacher observes and comments on conversational topics or actions with objects or make links between the child’s play and a literacy or math concept.

Although this is an effective way to scaffold children’s learning, many teachers do not perceive that they have a role in children’s explorations and play. A descriptive study examining early childhood teachers’ beliefs about their role in children’s play and related practices indicated that most saw themselves as observers only there to keep children safe. Of the 65 teachers in the study, only four saw play as an opportunity for making connections with literacy, and as few as 15 viewed it as a time to promote thinking (McLaine, J.B. 1996). The teacher’s role in children’s play and exploration of materials has been described as “multifaceted,” including being an organizer of the environment, facilitator, manager, and scribe. As more teachers accept this range of roles, child-directed learning should enhance teacher-directed activities to provide the best balance for school readiness.

Just as a teacher must ask questions about the purpose of teacher-directed activities, she must also carefully plan, attend to, and be involved in child-directed activities. In child-directed approaches, the teacher may establish learning centers that incorporate books and materials that assure that as children play, they have repeated exposure to concepts or information the teacher has previously shared. Teacher-directed activities may lead to child-directed learning. The direction, however, could be reversed so that children’s explorations and observations lead to the teacher’s setting up an experiment or a math task to build on the children’s interest. The important point is to strike a balance between teacher-directed and child-directed learning in early childhood classrooms—not one approach over the other, but a complementary balance of the two.

Incorporating Flexible Groupings + Balanced Strategies + Effective Planning + Content + a Responsive Style

The fifth key element is the use of different types of groupings (one-on-one, small group, large group) of children throughout the day.

Children receive higher quality attention from teachers when there is a smaller teacher-to-child ratio. This may occur because the teacher is more likely to respond sensitively to children’s signals, including their attempts to verbalize, when he is interacting with smaller numbers of children.

Since prekindergarten classrooms often have as many as 20 children, providing this individualized responsiveness is challenging. However, for activities such as read-aloud sessions, small groupings of children

are more likely to encourage the children to talk than large-group readings. The presence of a teaching aide or an assistant teacher often allows for more opportunity to use flexible groupings of children. With a team-teaching approach, one teacher can work with a small group of children while the other teacher moves around the centers scaffolding the learning of the other children or possibly carrying out an activity with them in a large group. It is important that all children benefit from participation in flexible groupings.

One-on-one instruction provides the teacher the opportunity to individualize instruction and meet special needs.

Small group instruction

- allows children more opportunity for talking,
- provides the teacher opportunities for scaffolding, and
- encourages hands-on activities and child discovery.

Large group instruction

- builds a sense of community and
- sets the stage for the introduction of themes and information about new concepts and for review.

viii. Professional Development: The Key to High Quality Prekindergarten Programs

A key to providing young children effective teachers is to ensure that teachers have effective professional development. Good teachers provide appropriate levels of challenge, help children question their own assumptions, and encourage them to think about and recognize relationships among people, places, and things.

Professional Development: Continuing Improvement and Support for Teachers Improves Quality in Prekindergarten Experiences

Teachers can learn and develop appropriate and effective techniques for positive teacher-child interactions. Through careful and continued development, teachers can build their effectiveness as educators over time. Therefore, professional development comprises an essential element in achieving quality early childhood programs. Teachers trained in early care and education are more responsive to children's needs and better equipped to help children succeed than teachers without that training.

According to the National Partnership for Excellence and Accountability in Teaching, professional development activities—regardless of their content and goals—are more likely to be effective when professional development has the following characteristics:

- Focuses on what children should learn and how to address the different problems children may have in learning the material
- Is based on analyses of the differences between actual student performance and goals and standards for student learning
- Involves teachers in identifying what they need to learn and in developing the learning experiences in which they will participate;
- Takes place primarily in the classroom and is integrated into the day-to-day work of teaching
- Is organized mostly around collaborative problem-solving in small groups of teachers
- Is continuous and ongoing, involving follow-up and support for further learning, including building support networks among multiple schools and garnering support from sources external to the school that can provide new perspectives
- Incorporates evaluation of multiple sources of information on outcomes for children Provides opportunities for teachers to understand the theory underlying the knowledge and skills being learned
- Is connected to a comprehensive change process focused on improving student learning

All early childhood stakeholders (public school, Head Start, child care) should have opportunities to become well versed in the *Texas Prekindergarten Guidelines*. Professional development with a focus on the importance of using these guidelines as a tool for playful, well-planned, and purposeful instruction in prekindergarten classrooms should be available for all administrators and directors.

In addition, teachers planning instructional approaches using the guidelines as a foundation will expose children to experiences with emergent literacy, math, and social/emotional skills. These teachers are more likely to have children who show cognitive gains that carry into kindergarten (Whitehurst & Lonigan, 1998; Zevenbergen, Whitehurst, Payne, Crone Hiscott, Nania, et. al., 1997). A first step in providing teachers with professional development that promotes their ability to use the guidelines in providing the early learning experiences necessary for the development of these school-ready skills.

A research-based practice for professional development is hands on with videos of classroom models. Web-based professional development or module type district trainings with ongoing updates as support can provide cost-effective formats to assist teachers in balancing teaching strategies based on research regarding cognitive readiness with developmental research about how children learn most effectively. The inclusion of these guidelines in any model of professional development will help promote a balance between integrity of training and cost.

Oral language is a cornerstone in the development of young learners. Professional development for teachers should include opportunities for teachers to learn to provide occasions to dialogue with children and scaffold for more in-depth interactions. Vocabulary should be developed or enhanced through real-life experiences. Professional development should focus on practical applications for developing classroom environments that teach subjects in an integrated manner and allow for the provision of real-life experiences for children. Worksheets and coloring pages should be used sparingly, if at all.

Vocabulary development is the foundation of developing comprehension in reading. Continuing development for early childhood professionals should include teaching introductory comprehension strategies. Comprehension skills should be taught through the use of read aloud activities which help teachers teach new vocabulary with context and should include clear teaching of what good readers do when they read. Professional development should include using questioning strategies and using mentor texts (texts that can be used as a model for writing) in prekindergarten for all subjects. Using inferences and teaching inferencing strategies to young children should be a part of professional development for increasing comprehension and oral language development. The reciprocal relationship between reading and writing should be firmly outlined for teachers as part of professional development. Teachers should understand the stages of writing and how to scaffold the stages for young learners.

Since young children will need time to repeat and practice skills, professional development should include examples of how teachers can differentiate instruction, extend activities, and give additional time for children to spiral though skills. Teachers need to build skill in noticing attention span, pacing lessons, extending practice, and recognizing the value of learning time and process.

Organization of the *Texas Prekindergarten Guidelines*

There are 10 domains.

I. Social and Emotional Development
II. Language and Communication
III. Emergent Literacy Reading
IV. Emergent Literacy Writing
V. Mathematics
VI. Science
VII. Social Studies
VIII. Fine Arts
IX. Physical Development and Health
X. Technology

Each domain includes skill areas.

Six domains include the following columns:

- By around 48 Months of Age
- End of Prekindergarten Year Outcomes
- Examples of Child Behaviors
- Examples of Instructional Strategies

Four domains do not include the column “By around 48 Months of Age” as there is no research to guide the inclusion of this category in those four areas.

Within the document, child and teacher are referred to by *his* or *her* and *he* or *she* interchangeably. This is for ease of reading, not as a specific gender reference.

Outcomes are numbered in the following manner:

- Domains are indicated with Roman numerals.
- Within each domain, separate skills are listed with an alphabetic indicator.
- Under each skill, the outcomes are then numbered sequential.

I. SOCIAL AND EMOTIONAL DEVELOPMENT DOMAIN

While a prekindergarten education should include activities that strengthen cognitive skills, it must provide for the development of the social and emotional competencies required for school readiness. Early experiences influence brain development, establishing the neural connections that provide the foundations for language, reasoning, problem solving, social skills, behavior and emotional health. Some children will develop social and emotional skills with appropriate teacher guidance surrounding social and emotional situations such as, separating from families, sharing space and materials with peers, resolving conflicts, and developing empathy for others. However, all children will benefit from direct social skill instruction, explicit teaching, and repeated opportunities to practice skills. The development of these personal and social skills enables children to build a sense of who they are and what they can do. Children establish positive relationships with teachers and peers which enable them to participate effectively in the classroom community, assert independence in appropriate ways, and accomplish tasks that are meaningful to them without infringing on the rights of others. Children who can follow directions, communicate their wants and needs effectively, and get along with other children are more prepared to enter an academic environment as school-ready.

I. SOCIAL AND EMOTIONAL DEVELOPMENT DOMAIN

A. Self Concept Skills

Central to understanding emotional development is the idea of self concept–an increasing level of conscious awareness of one's feelings, thoughts, abilities, likes, and dislikes, as well as awareness of one's body in space. Prekindergarten children's emerging ability to perceive these aspects of themselves at a conscious level distinguishes them from toddlers, who lack such awareness. Children begin to generate multiple answers to the question "Who am I?" which is an essential aspect of becoming competent in related areas such as self control and social/friendship skills.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child is building competence in controlling own body movements (such as balancing, sitting still, starting and stopping in response to requests).	I.A.1. Child is aware of where own body is in space and respects personal boundaries.	The child: • is able to stay in designated personal space without intruding upon others' (stays in own seat at lunch table without kicking feet or leaning against neighboring children). • can move around the classroom without stepping on materials or disrupting others' activities.	The teacher: • arranges classroom furniture in a manner that allows children to engage in class activities. • conducts activities in spaces that are adequate for children's space needs. • uses positive cues to remind children what to do with their bodies at certain times ("hands in your lap;" "quiet feet," "use kind words and gentle touches," "watchful eyes"). • encourages children to use their words to get their needs met such as "Stop, I don't like it when you (push me); next time (say excuse me.") or "I don't like it when you (grab things from me); next time (ask for a turn).

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child can identify own physical characteristics and indicate some likes and dislikes when prompted.	I.A.2. Child shows self-awareness and can express pride in age appropriate abilities and skills.	The child: • describes self using basic characteristics (hair color, eye color, gender). • describes self using personal preferences (favorite color, favorite food: "I like . . . "). • describes self using specific competencies ("I can buckle my shoes." "I'm good at drawing."). • describes self in terms of being a member of different communities (family, classroom, school).	The teacher: • acknowledges children's efforts, providing support when needed. • engages children in conversations about themselves. • provides opportunities for children to draw self portraits and describe themselves. • reads aloud and discusses books about self awareness. • points out observations of progress in children's growing competence.
Child may overestimate or underestimate own abilities.	I.A.3. Child shows reasonable opinion of his own abilities and limitations.	The child: • exercises appropriate caution in clearly dangerous situations. • requests help from adults when appropriate. • declines help politely when not needed ("No, thanks, I can do it myself.").	The teacher: • sets appropriate safety limits for children's age level. • provides help kindly when requested. • encourages children to do as much as they are able independently. • points out and compliments children when they use good judgment ("Jasmine, I'm glad to see you carrying those scissors so carefully." "Thank you, Derrick, for wiping up that spilled water so no one will slip and fall."). • models and encourages practice of self-help skills child has not yet mastered. • scaffolds activities that may present some challenges to children.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child shows initiative in trying new activities, but may not persist in solving problems.	I.A.4. Child shows initiative in independent situations and persists in attempting to solve problems.	The child: • is eager to try out new activities and materials. • participates in a variety of individual activities and tasks. • selects centers or activities based on personal preferences. • plans and sustains independent play sequences. • tries several strategies to solve a problem before seeking adult assistance. • uses appropriate communication to express frustration.	The teacher: • provides a variety of learning centers and activities that meet the needs and interests of different children. • gives children opportunities to make independent decisions about which learning center or materials to work with. • models appropriate use of materials for independent work or play. • comments on the contributions of children in activities, tasks, and play. • teaches and encourages children to solve problems and persist at challenging tasks.

I. SOCIAL AND EMOTIONAL DEVELOPMENT DOMAIN

B. Self Regulation Skills

Prekindergarten children feel safer and function more successfully in the classroom when rules and routines are consistently implemented*. A well organized classroom with well prepared activities helps children* expand *their attention span and build self-control and personal responsibility. As they encounter and overcome new and various social obstacles when playing with peers, guidance from teachers will enable them to learn acceptable and unacceptable ways of dealing with social and emotional stress and/or excitement.*

1. Behavior Control

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child follows simple rules and routines when assisted by adults.	I.B.1.a. Child follows classroom rules and routines with occasional reminders from teacher.	The child: • participates in the development of classroom rules. • transitions from one activity to another. • comments on the sequence of the day's events ("After centers, it's time to go outside."). • goes to the daily schedule chart and points out what comes next.	The teacher: • involves children in creating classroom rules and expectations so they feel sense of ownership. • consistently refers to and uses the rules and routines to structure the day. • establishes signals (finger plays, songs, chants, etc.) to help children transition from one activity to another. • uses a daily schedule with pictures/symbols to help children follow the day's activities.
Child is able to manage a small number of materials with support.	I.B.1.b. Child takes care of and manages classroom materials.	The child: • appropriately handles materials during activities. • cleans up and puts materials away in appropriate places (places a puzzle back into its labeled spot). • puts away his belongings in his personal space.	The teacher: • provides demonstrations and reminders of appropriate use of materials. • establishes signals (clean-up song) to help children clean up. • provides adequate time for cleaning up materials. • labels materials to make them accessible for children. • provides a space for each child to store his personal belongings. • introduces new materials and shows children how to use them before placing the materials in a learning center.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child needs adult guidance to help manage her behavior.	I.B.1.c. Child regulates his own behavior with occasional reminders or assistance from teacher.	The child: • responds to signals for transitioning from one activity to another. • communicates appropriately to make needs known. • waits for her turn (waits patiently at the water fountain for a classmate to finish drinking; selects another learning center when the learning center of her first choice is full). • refrains from impulsive responses (waits her turn to be called on during group discussion, requests materials rather than grabbing them). • refrains from aggressive behavior toward peers or self.	The teacher: • establishes and uses signals to help transition from one activity to another. • responds to a child's request for assistance in a timely manner. • uses center signs to help structure the number of children in a center. • reads aloud and discusses books that show characters regulating behavior. • intervenes promptly when a child's behavior begins to escalate.

2. Emotional Control

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child recognizes and expresses a range of emotions/feelings.	I.B.2.a. Child begins to understand difference and connection between *emotions/feelings* and *behaviors*.	The child: • expresses emotions that are congruent with situations (disappointment when plans are changed, happiness and pride at mastering a challenging task). • uses words to express feelings about specific events ("I feel mad when you take my toy!" "I love to paint!"). • verbalizes understanding that all feelings are okay even though some behaviors may not be okay. • uses sign language, a picture system, or an adaptive/assistive device as appropriate.	The teacher: • uses activities that involve children in discussions about emotions and how to react to them (books, role playing, puppets). • engages children in discussions of difference between feelings and behaviors ("It is great to feel excited, but you may not jump off furniture." "It is okay to feel angry, but you may not hit people because it hurts them."). • models and encourages children to express and act out different feelings in the dramatic play center while role playing. • models appropriate verbalization of emotions during everyday events.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
			• acknowledges children's emotions, and uses them as instructional opportunities to self-regulate.
Child becomes familiar with basic feeling words (happy, sad, mad, scared).	I.B.2.b. Child can communicate basic emotions/feelings.	The child: • has been exposed to a variety of words to describe feelings. • is familiar with a variety of feeling words (happy, sad, mad/angry, scared, proud, worried; excited). • can usually label own feelings when prompted. • can identify feelings of characters in storybooks.	The teacher: • provides classroom materials that introduce feeling words (posters, books). • helps children label their own feelings. • helps children notice and label expressions by modeling facial expressions (drawing attention to face with gestures) when commenting to children using feeling words ("Maria, I am sooo happy" as she points to her smile.) • models labeling of own feelings ("Please sit down Diego; I am worried that you might fall." "We cannot go outside because it is raining; that makes me feel sad.") • reads books and sings songs that pertain to feelings. • prompts children to identify characters' feelings in storybooks and to explain why characters might be having those feelings.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child needs adult assistance to modulate level of emotional intensity.	I.B.2.c. Child is able to increase or decrease intensity of emotions more consistently, although adult guidance is sometimes necessary.	The child: • uses appropriate strategies to decrease level of distress (requests help when feeling frustrated with a task, seeks comfort from teacher when feeling sad). • responds positively to adult guidance in using calming strategies (suggestions to separate self from frustrating situation, takes a deep breath). • enjoys participating in activities that stimulate positive emotions (playground games, musical and singing activities that require alternation of loud/quiet, fast/slow).	The teacher: • establishes consistent signals to prompt children to become quiet and listen to instructions. • models and prompts children to use effective strategies for calming down when they are too excited (introducing quiet game or activity, spending time alone in quiet area of the room, breathing slowly and deeply, or other sensory activities such as scented lotion or fidget toys. • creates a daily schedule with pictures/visuals that balances quiet and active times, and allows children opportunities to expend physical energy and be noisy. • arranges the classroom to provide areas for quiet, calm activities. • provides supportive assistance to children during situations that may be emotionally challenging, such as separating from family members in the morning. • provides opportunities for children to practice modulating levels of emotion and intensity, such as songs and games that alternate fast/slow and loud/soft.

3. Control of Attention

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child focuses attention on one task at a time but may not stay with it to completion.	I.B.3.a. Child sustains attention to personally chosen or routine (teacher-directed) tasks until completed.	The child: • selects an activity or book to look at and completes it before selecting a different activity. • makes and carries out a sequence of dramatic play plans with a peer. • follows familiar/routine 3-step directions correctly ("Go wash your hands, get your lunch kit, and find a seat at the table.").	The teacher: • arranges the classroom to facilitate children's access to, and selection of, sets of materials with which to complete a task (access to paint, paper, smock, and paintbrushes in the creativity center; access to pencils, paper, letter stamps, and ink pads in the writing center). • encourages children to continue with their planned activity until it is completed. • refrains from distracting or redirecting children's attention from their chosen activity/play unless it is clearly necessary to do so. • provides assistance to a child who needs support to continue focusing on a task or activity (praising effort, offering encouragement, offering help if needed, suggesting expansions to child's play idea, offering additional related props or materials). • provides opportunities to practice following multi-step directions.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child sits and listens to stories and/or participates in large group activities for up to 10–15 minutes at a time.	I.B.3.b. Child remains focused on engaging group activities for up to 20 minutes at a time.	The child: • listens attentively to stories and instructions during circle times. • contributes verbal responses that are appropriately related to the topic during group discussion. • attends to peer responses during small- and large-group discussion.	The teacher: • schedules large- and small-group activities with durations matched to children's attention spans. • prepares ahead for group activities so that children are not left waiting with nothing to do. • uses lively pacing of group activities and encourages children's active participation to help children sustain attention such as integrating music and movement. • encourages children to attend to each other's contributions rather than attending only when it is their turn. • minimizes distractions (extraneous noise, toys left within children's reach, adults entering and leaving the room frequently) during times when children are expected to attend to group activities.

C. Relationships with Others

As prekindergarten children enter school, they start forming relationships with the adults and other children in their environment. Teachers can help children develop meaningful and rewarding relationships by offering them facilitative support. During this developmental period, children often begin to develop special friendships with particular peers which increase their feelings of comfort, pleasure, and confidence in their social world. These experiences also help build a sense of empathy and caring for others.

By around 48 months of age	**End of Prekindergarten Year Outcomes**	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
Child forms positive relationships with teachers.	I.C.1. Child uses effective verbal and non verbal communication skills to build relationships with teachers/adults.	The child: • greets teacher in the morning and says goodbye when leaving. • coordinates eye contact with communication (looks at teacher during communicative exchanges). • engages in conversations with an adult about what he is doing such as sharing stories and experiences from outside of the school with the teacher. • views teacher as a helpful resource for information as well as social support (approaches teacher to ask questions or solicit help when needed). • respects teacher's authority (accepts limits and rules set by teacher). • participates in developing classroom rules and routines.	The teacher: • displays a warm, welcoming attitude toward all children. • greets children by name at arrival times and says goodbye at departure times. • recognizes cultural differences, which may be non-verbal; for example in certain cultures, children's averting eye contact from adults may be considered a sign of respect for authority. • establishes consistent, fair and developmentally appropriate classroom routines and rules (takes input from children). • engages in conversations with each child throughout the day. • asks questions to scaffold conversations with children. • allows ample wait time for children to respond or to ask questions. • gets down to child's level (seated on floor or chair) during conversation as often as possible. • remembers and responds to information specific to individual children (Lauren's mom is about to have a baby; Jake's grandfather died last week; Shana is adjusting to being in a new home.).

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child feels comfortable and confident within classroom environment.	I.C.2. Child assumes various roles and responsibilities as part of a classroom community.	The child: • cares for classroom materials appropriately. • recognizes that classroom materials belong to everyone. • readily accepts and carries out "classroom helper" jobs. • respects other's work spaces and time with shared materials. • takes turns with materials and in activities. • participates in individual, small-, and large-group activities (sings along with the group during circle time, plays cooperatively in the block center with classmates to build a tower). • takes responsibility for cleaning up own spills and messes. • enjoys seeing own work and self-representations displayed in the classroom (artwork on the wall, name and picture on charts and cubbies). • understands the consequences of not following directions.	The teacher: • teaches children how to properly care for classroom materials and to clean up after themselves. • makes children part of decision making processes (naming the classroom pet). • provides meaningful classroom "helper" jobs that allow each child to participate in the classroom community. • provides time, space, and materials that allow children to work together in small and large groups. • provides interactive songs and activities to engage children during circle time. • displays children's work, names, play products, and pictures in the classroom.
Child shows interest in peer play but may be less skilled (or lack confidence) initiating and joining a group.	I.C.3. Child shows competence in initiating social interactions.	The child: • participates spontaneously in a variety of group activities, tasks, and play. • actively seeks out play partners and appropriately invites them to play (starts a game with classmates on the playground).	The teacher: • encourages children to show initiative rather than passivity (inviting children to share their opinions and preferences, saying "Jesse, why don't you ask Mark if he wants a ride in your wagon?"). • provides time, space, and materials that encourage children to work and play together in small and large groups. • reads aloud and discusses books where the characters deal with a variety of social situations.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child enjoys parallel and associative play with peers.	I.C.4. Child increasingly interacts and communicates with peers to initiate pretend play scenarios that share a common plan and goal.	The child: • shares space and materials with other children comfortably. • follows the lead of others (enters a center and adapts to the ongoing play of others). • generates joint play goals and carries them out with at least one other child at a time. • demonstrates ability to negotiate and compromise with peers to achieve a cooperative goal.	The teacher: • models positive interactions by engaging in play with the children. • arranges classroom to provide space for cooperative as well as individual play activities. • assists children in communicating effectively with each other and resolving conflicts appropriately. • encourages quieter/shy children to connect with others, providing assistance to do so when needed.
Child seeks adult help when experiencing conflicts with another child.	I.C.5. Child initiates problem-solving strategies and seeks adult help when necessary.	The child: • attempts to work out problems with a peer independently before seeking adult help. • asks an adult or peer for help when needed ("Will you push me on the swing?"). • asks the teacher for help in resolving a conflict with a classmate after attempting to solve the problem herself ("Mary won't give me a turn on the swing!"). • follows conflict resolution steps with teacher's guidance to solve a dispute with a classmate.	The teacher: • encourages children to communicate directly with each other in respectful ways. • models appropriate ways to ask for assistance. • involves children in discussions and activities about how to get own needs met while respecting the needs of others (books, role playing, puppets). • helps children learn the language of simple conflict resolution such as "I don't like it when you show me your tongue. I feel angry/I feel sad." "When you want my attention, say my name."

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child responds with concern when a child or adult is distressed.	I.C.6. Child demonstrates empathy and caring for others.	The child: • shows emotions related to another's experience (expresses sadness for a character in a book, shows excitement when a classmate crosses the finish line in a race). • demonstrates a desire to be helpful (volunteers to help a classmate clean up a spill). • demonstrates concern for a classmate (comforts a classmate who is crying, slows down to walk with a classmate with a physical disability). • interacts with a variety of peers regardless of race, gender, or ability.	The teacher: • models concern for others. • acknowledges when children help each other. • uses activities that introduce children to the concept of perspective-taking (the idea that others may see or feel things differently than they do). • uses activities that involve children in discussions about the feelings of others (books, role playing, puppets). • provides active opportunities for children to be helpful and caring (making get-well cards for a sick classmate, making gifts for family and friends at holiday times, taking care of a classroom pet, pairing a child with a disability with a peer who can help).
Child interacts with playmates and may have preferred friends.	I.C.7. Child interacts with a variety of playmates and may have preferred friends.	The child: • talks with the friend to plan their play (planning to play house in the pretend and learn center). • seeks help for the friend (going to the teacher for help when a friend falls down). • talks about the friend. • chooses to work with the friend. • copies the friend's ideas or behaviors at times. • expresses pleasure at spending time with the friend. • follows the friend's preferences or notices concerns at times. • expresses interest in playing with the friend outside of school. • independently chooses a work or play partner.	The teacher: • provides time, space, and materials that allow children to work and play together in small and large groups. • leads activities that involve children in discussions about friendship (books, role playing, puppets). • facilitates peer interactions through structured activities and play. • acknowledges classmates who are working together or helping each other as doing what friends do. • respects child's desire for proximity or pairing with a special friend when appropriate (wanting to sit together at lunch time, partnering for a game).

I. SOCIAL AND EMOTIONAL DEVELOPMENT DOMAIN

D. Social Awareness Skills

Prekindergarten children need adult support and guidance in learning how to operate socially with others. In addition to facilitating peer group and adult-child interaction, teachers can help to reinforce understanding of social situations with rich, socially relevant educational material, and thought-provoking questions.

By around 48 months of age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child is interested in other people and their feelings.	I.D.1. Child demonstrates an understanding that others have perspectives and feelings that are different from her own.	The child: • uses visual cues from other children to identify how he is feeling. • uses words to express own and other's preferences ("I like to paint with red, and Mary likes to paint with blue."). • uses words to express own and other's feelings ("Michael thinks that's funny, but I don't!"). • asks questions that indicate understanding that peers may have a different perspective than himself ("Do you like raisins?" "Were you scared of that movie?").	The teacher: • models acceptance of someone's different perspective. • reads aloud and discusses books that show characters with differing perspectives. • has children identify the feelings of different story characters during read-alouds. • provides activities that promote respect for diversity (culture, ethnicity, special needs, and language). • introduces activities that give children concrete experiences with the concept of different perspectives (taking turns looking around through different colored lenses or through binoculars, having children pair up and sit back-to-back with their partner and describe what they can see from their position; then trade places). • uses a graph to compare and contrast children's preferences (favorite food, color, book).

II. LANGUAGE AND COMMUNICATION DOMAIN

During the prekindergarten years, children's experiences with language begin to form the basis for their later school success. Explaining words and sounds, talking to children about objects and their names (labeling), and using expanded vocabulary are all ways in which teachers can help to build children's oral language skills. Given adequate opportunities to interact with responsive adults in language rich classrooms, young children's language skills usually expand rapidly during these years. The language skills include listening and speaking, expanding both children's understanding of what they hear, as well as their ability to communicate their own ideas and experiences. These language skills in turn have a tremendous impact upon reading and writing as children progress through school. Language is optimally timed for authentic purposeful child-initiated oral language opportunities. For children whose first language is other than English, the native language serves as the foundation for communication among family and community members, and building concepts and understanding of the world around them. This proficiency also assists in English language acquisition. Many children who are English language learners (ELLs) enter our schools with a remarkable knowledge of their native language, a "linguistic knowing" that they use instinctively in their daily communications. The process of transfer (with literacy-based ESL and oral language beginning in prekindergarten, requires that we take what children already know and understand about literacy in their home language and ensure that this knowledge is used to help them gain literacy skills in a second language. Prekindergarten educators should provide opportunities to promote language learning in children who speak a language other than English. ELL children may have difficulties with the pragmatics (the appropriate use of language to communicate effectively in many different situations and for many different purposes) of English. These include rules of politeness, conversational skills, and extended discourse (telling a story and giving an explanation). Pragmatic skills are important for ELL children to understand what teachers say in the classroom. Scaffolding is effective for building young children's language and literacy; this is also true for the ELL child. Except where specified, the following guidelines outline language accomplishments for 4-year-old children in their native language. The stated outcomes should be used as a guide for children who have limited English proficiency and are appropriate for all children who are ELLs, providing guidance for teachers' instruction. Additional specific guidelines for the support of language development of prekindergarten children whose home language is not English in English-only settings appear below and are indicated by this icon: (LEER MAS, 2001).

II. LANGUAGE AND COMMUNICATION DOMAIN

A. Listening Comprehension Skills

From birth, children begin learning by listening to the world around them. As their exposure increases, so does their understanding. Prekindergarten-age children are able to comprehend with increasing accuracy what they hear in conversations and in stories read aloud. Children demonstrate understanding through their questions, comments, and actions. According to state law, prekindergarten ELL children can be in a classroom environment that provides either bilingual instruction or English as a Second Language instruction. ELL children arrive at school with listening comprehension skills in their home language. These skills can be used to support their development in English. ELL children listen purposefully to both English-speaking and Spanish-speaking teachers and peers to gather information about both their home language and their new language (English) (LEER MAS, 2001).

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child responds to situations in ways that demonstrate he understands what has been said.	II.A.1. Child shows understanding by responding appropriately.	The child: • has a multiple-turn conversation with another person, listening in order to extend or connect to an idea expressed by the other person. • responds to stories by asking and answering questions. • makes comments related to the topic being discussed. • responds before, during, and after stories read to the whole class, as well as responding when read to in a small group. • follows a change in the morning activity schedule as described by the teacher. • follows verbal directions. • listens to digital or e-stories and shows understanding through body language, pointing to the appropriate pictures, or retelling what she heard.	The teacher: • engages children daily in conversations related to themes or content where children take multiple turns listening and responding, either orally or physically. • provides feedback when conversing with a child to model listening and encourages additional comments from that child. • asks children to recall and add details to expand their responses while engaged in group activities, such as read aloud time, show and tell, author's chair. • asks children who, what, where, and why questions to engage children in the read aloud experience. • provides multicultural, culturally relevant books for children.
Child follows simple single step requests.	II.A.2. Child shows understanding by following two-step oral directions and usually follows three-step directions. Child shows understanding by following one to two-step oral directions in English.	The child: • follows directions given by the teacher to "Please put your things away, and then sit down on the carpet." • responds to instructions given to the whole class ("Please get your jackets, put them on, and get in line."). • repeats an instruction to a friend. • follows digital directions to perform various movements or gestures. • participates in games such as "Follow the Leader."	The teacher: • pairs an ELL child with a monolingual English speaking child, if possible, to serve as a model. • instructs children in daily routines, such as setting the table, going to centers, going outside and to the restroom, by giving two- and three-step directions. • provides two- and three-step directions for children to complete specific tasks during transitions such as cleaning up and getting in line. • plays or sings songs requiring children to act out multiple behaviors and multi-step directions ("Hokey, Pokey," "If You're Happy and You Know It").

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child demonstrates understanding of following classroom routines.	II.A.3. Child shows understanding of the language being spoken by teachers and peers. Child shows understanding of the new language being spoken by English-speaking teachers and peers.	The child: • follows a set of routines for activities and can make sense of what is happening. • responds to consistent and simplified language when instructed in literacy activities and assignments. • turns to a partner and repeats instructions – Think, Turn and Talk. • responds to questions by using the following to represent answers: popsicle sticks (with green/red ends), white socks vs. colored socks, yes-no cards, thumbs-up thumbs-down, beanbag, beach ball.	The teacher: • provides scaffolds in how to use strategies, skills, and concepts. • adjusts own use of English to make concepts comprehensible. • accepts responses in child's native language. • selects and incorporates children's responses, ideas, examples, and experiences into lesson. • always gives children think time before asking for a response. • ensures quality of independent practice. • asks questions to ensure comprehension. • provides extra instruction, practice, and review. • maintains close proximity to children. • uses the child's home language as base to support the development of English oral language (in Bilingual and ESL programs). • allows children to respond in their home language (in Bilingual/ESL instructional settings).

II. LANGUAGE AND COMMUNICATION DOMAIN

B. Speaking (Conversation) Skills

Prekindergarten children gain the ability to use language in a variety of settings and for a variety of reasons. They become increasingly able to describe wants and needs, carry on a conversation with others, and share information with both peers and adults. The skill to engage others in conversations involves asking questions, listening, and responding, as well as using verbal and nonverbal expressions. Children who are English language learners may require more time to respond and greater wait time because they are learning and processing two languages at once. This is a normal part of second language acquisition. Children learning English should be encouraged and expected to demonstrate their speaking/communication skills in their home language as well as in English.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child sometimes uses language for different purposes.	II.B.1. Child is able to use language for different purposes.	The child: • requests help from a teacher to get a ball that went over the playground fence. • tells a friend that she is angry about being pushed. • uses "please" and "thank you" appropriately. • participates in a discussion about magnets, making predictions about what things the magnet will attract. • tells the class about a family trip to the zoo.	The teacher: • models appropriate language usage. • engages children verbally in center activities, role playing, and modeling desired language skills. • provides experiences that require children to talk, play and work cooperatively. • engages children in active problem-solving situations ("What do you think will happen if . . .?" "How would it change what happens when . . .?"). • provides guidance and support to encourage children to ask and answer questions in order to solicit help, obtain information, or clarify something that is not understood.
Child sometimes uses accepted language and style during communication with familiar adults and children.	II.B.2. Child engages in conversations in appropriate ways.	The child: • enters an existing play situation, joining into the conversations in progress (outside, dramatic play, or construction center). • responds to both open-ended questions and questions with specific answers ("What do you think about . . .?" "What is your favorite kind of pizza?"). • initiates, participates in, or terminates conversations appropriately. • engages in appropriate greeting, contributes to a conversation, and can depart conversations.	The teacher: • creates a play environment that encourages children to engage in conversations during play. • provides interesting and changing materials and settings for children to talk about. • engages in conversational exchanges with each child every day. • notices the children who do not engage in talk as easily and looks for ways to initiate conversation or to have another child initiate a conversation with those children.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child is able to communicate basic information in familiar social settings.	II.B.3. Child provides appropriate information for various situations.	The child: • answers questions from adults within the school, other than the classroom teacher, such as a nurse. • asks the teacher for help in problem-solving or with tasks such as tying a shoe. • introduces herself to a new child in the class.	The teacher: • models classroom expectations for greeting and responding to new people. • teaches children to ask for help when necessary. • helps children learn their personal information and appropriate people to share that information with in a safe manner.
Child sometimes uses accepted language and style during communication with familiar adults and children.	II.B.4. Child demonstrates knowledge of verbal conversational rules.	The child: • participates in a conversation with a peer or adult, taking turns talking and not interrupting. • waits until a teacher finishes a conversation with an adult before talking. • uses the appropriate tone of voice for the situation (a raised voice to show excitement when talking outside or about a new pet, a quiet voice when inside).	The teacher: • models conversational etiquette during whole group time, such as sharing a journal entry or during show and tell ("James is sharing now. Your turn is next."). • models and explains when and how to use the phrase "Excuse me" when a child needs to interrupt an ongoing conversation. • provides assistance to children in learning to wait their turn to talk, through the establishment of classroom rules and expectations.
Child sometimes uses appropriate nonverbal standards in conversations with others.	II.B.5. Child demonstrates knowledge of nonverbal conversational rules.	The child: • looks at a classmate as he discusses what he is going to build in the construction center. • shows excitement by displaying wide open eyes and a smile when talking about a family experience. • sits or stands an appropriate distance from a friend as they talk. • talks to the people in her vicinity, at her table or beside her on the carpet.	The teacher: • reads parts of a book using different facial expressions and discusses how this affects the story. • models and explains different nonverbal conversational rules ("When you look at me, it shows me that you are listening."). • role-plays conversations using appropriate nonverbal behaviors ("Watch my face while I am talking to Maria. See how I watch her while she is talking, smiling if she tells me something good, looking sad if she tells me something that is sad.") and then has a conversation with the child.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child sometimes uses appropriate volume and intonation for different situations.	II.B.6. Child matches language to social contexts.	The child: • moves close to a teacher and speaks quietly as classmates settle down for a nap. • uses the title "Mrs." Or "Mr." before a teacher's name and refers to classmates by first names. • follows the classroom rule regarding "quiet voices." • differentiates/adjusts voice appropriately based on the activity.	The teacher: • models appropriate language and tone in different social situations (using different quiet and loud voices). • provides varying social situations for children to practice language usage (parties/celebrations, lunch time, assemblies, field trips). • reminds children of appropriate language and tone during different times of the day (in centers, meal time, in the hall).

II. LANGUAGE AND COMMUNICATION DOMAIN

C. Speech Production Skills

Young children must learn to vocalize, pronounce, and discriminate among the sounds of the alphabet and words of language. Although some children in prekindergarten can accurately perceive the difference between similar-sounding words, they continue to acquire new sounds and may mispronounce words in their own speech. The ability to produce certain speech sounds such as /s/ and /r/ improves with age. Just as infants and toddlers develop control over the sounds of their native language, young children in ELL settings gradually learn to pronounce the sounds of the English language (LEER MAS, 2001).

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child's speech is understood by familiar adults and children.	II.C.1. Child's speech is understood by both the teacher and other adults in the school.	The child: • speaks clearly enough so that the other adults in the school or a visitor can understand what he is saying. • accurately gives a message from home to the teacher. • communicates in a way that others understand what is being said without constantly having to ask, "What did you say?"	The teacher: • speaks at a comfortable pace (not too fast nor too slow). • enunciates all sounds within words, and uses an easily heard volume inside and outdoors. • expects children to use phrases or short sentences when making requests rather than only pointing or gesturing. • plays games like "Telephone" that requires clear speech. • allows children to use technology to record and listen to clear speech. • models correct examples when a child over-generalizes rules (Child says, "My foots are cold." Teacher responds, "Your feet are cold. Why are your feet cold?").

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child may confuse words that sound similar.	II.C.2. Child perceives differences between similar sounding words.	The child: • can produce vowel sounds and consonant sounds including \b\, \p\, \m\, \t\, \d\, \n\, \k\, and \g\. • follows directions without confusion over the words heard. • points to the appropriate picture when prompted (when shown a picture of a goat and a coat, points to the picture that matches the word spoken). • discriminates between similar initial consonant sounds such as \b\ and \p\, \g\ and \k\, or \t\ and \d\.	The teacher: • models pointing to appropriate pictures as the objects in the pictures are said. • models saying words distinctly enough to hear the differences between similar sounding words. • provides pictures with similar sounding names for the children to interact with.
Child joins in songs and finger plays.	II.C.3. Child investigates and demonstrates growing understanding of the sounds and intonation of language. Child investigates and demonstrates growing understanding of the sounds and intonation of the English language.	The child: • participates in planned oral language activities. • plays with familiar songs using sounds substitution (the song "Twinkle, Twinkle, Little Star" can be substituted using "la, la, la, la" throughout). • inserts sound play into the lyrics of a familiar song (highlights a particular sound, example /k/, works with the rhymes in the "Cat and the Fiddle" and "Hickory Dickory Dock"). • uses phonograms (cat, hat, sat, mat, fat, pat, or in Spanish casa, masa, pasa) when playing with rhymes.	The teacher: • understands the importance of language development and the sound structure of language acquisition including its relationship to phonological awareness development. • selects words that include sounds common in native language and English and separates similar sounds.(For example, in English and Spanish the sounds for b, e, m, d, t, k, g are similar.). • asks children to repeat words before attempting a task. • has awareness of differences in pronunciation. • accepts oral approximations. • includes rhymes that focus on pairing movement and action with rhythmic passages. • uses choral responses. • uses phonograms (cat, hat, sat, mat, fat, pat or in Spanish mes, les, pez, vez).

II. LANGUAGE AND COMMUNICATION DOMAIN

D. Vocabulary Skills

Children's vocabulary acquisition is largely dependent upon interactions with adults. These may be occurring in one or more languages through talking about experiences, reading familiar stories, singing familiar songs, and playing word games. Prekindergarten children experience rapid growth in their understanding of words and word meanings. Vocabulary knowledge reflects children's previous experiences and growing knowledge of the world around them and is one of the most important predictors of later reading achievement. As children learn through experiences, including play, they develop concepts, acquire new words, and increasingly refine their understanding of words they already know. English language learners (ELLs) may need extensive English vocabulary instruction. ELL children arrive at prekindergarten with a vocabulary knowledge base in their home language. This knowledge base should be used to develop vocabulary in the child's second language. When introducing vocabulary to ELL children, teachers should use a variety of approaches to teach important new words and use real-life objects or pictures when appropriate. The use of cognates and making cross-language connections can be helpful for vocabulary development. Exploring the sounds, meaning, grammatical function, and multiple uses of a word are strategies that are beneficial for increasing word knowledge among ELLs.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands and uses accepted words for objects, actions, and attributes.	II.D.1. Child uses a wide variety of words to label and describe people, places, things, and actions.	The child: • demonstrates understanding by identifying and following directions that include the new vocabulary concepts. • explains his favorite part of a fiction or nonfiction book that was read. • relates experiences from a field trip, using specific words to describe what she saw and did, such as naming the tools the firefighter uses and how the siren sounded. • uses words to communicate how he is feeling. • uses language to express common routines. • uses the new words introduced by the teacher while engaging in theme- or content-related	The teacher: • provides and reads to children a variety of concept-related books (farm/zoo animals, vegetables/fruits, the body, transportation). • provides ways for children to interact with and use new vocabulary words in meaningful contexts using real objects or pictures for visual support (such as making a grocery store for children to interact with new vocabulary). • models a wide variety of rich, rare vocabulary words including varied nouns, adjectives, and verbs ("These flowers are called azaleas. Their edges are frilly, like lace, but very soft."). • defines new words for children when reading aloud by connecting what children already know to the new word and encourages discussion of word meanings ("This is a shovel. It is like a great big spoon that scoops up the dirt."). • describes and explains concepts during field trips, outdoor play, and meal times ("As the weather begins to get cold, the leaves are starting to turn colors. Soon, they will fall off the trees."). • creates category lists of words

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
		activities and play. • uses the new words while engaging in child-initiated play. • uses the new words during role play in the dramatic play center while assuming the role of a cashier (scripts). • tells a classroom visitor about his experiences with the materials in the science center, using appropriate terminology. • follows directions that use descriptive words ("Hop slowly"; "Run fast"; "Draw a small square"). • demonstrates understanding of frequently occurring verbs and adjectives by relating them to their opposites such as up, down, stop, go, in, and out).	(people who work in our school; animals in the book we read) to help children make meaningful connections between words and concepts.
Child responds to instructional language of the classroom.	II.D.2. Child demonstrates understanding of terms used in the instructional language of the classroom.	The child: • follows directions during transitional times ("Please line up behind Maria." "Put your coat on the hook next to Rhonda's."). • follows directions in songs to "put your hand over your head" and then "put your hand behind your back." • understands directions given at center time ("Put the items that are the same together."). • points to appropriate pictures or objects when prompted.	The teacher: • provides directions to children using very specific language for locations, sizes, shapes, and relationships ("Look for the long, brown block inside the cabinet."). • plays "I Spy" and scavenger hunt games using specific location, action, and descriptor words ("Find two crayons the same color and one that is different."). • creates adaptations of songs, poems, and nursery rhymes to incorporate using and demonstrating positional words ("Little Miss Muffet sat on her tuffet. Where would she sit if she sat in front of her tuffet?" Have a child demonstrate and all the children describe where the child is sitting.). • identifies the attributes that make objects the same or different ("These crayons are the same color but

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
			different lengths.”). • Demonstrates difference in lengths by placing crayons side by side with one end the same, so children can observe the difference. • includes language about position and descriptive characteristics of things and actions when interacting with children or commenting on their play, during both inside and outside play (“Look at the bird sitting on the fence.”). • provides activities that engage children in using positional and descriptive characteristics during independent play (centers where children describe actions as they put a variety of animals in front of, behind, beside a tree; sort shapes into groups of same and different, such as triangles and not triangles).
Child shows understanding of many words and a steady increase in vocabulary.	II.D.3. Child demonstrates understanding in a variety of ways or knowing the meaning of 3,000 to 4,000 words*, many more than he or she uses. Child learning English as a second language comprehends up to 1,000 words (ELL child will comprehend many more words than he or she uses.).	The child: • uses a new word when describing a picture in a book (“That boat is floating on the water.”). • demonstrates understanding of new words by using the new word appropriately (“The rock sank, but the boat floats.”). • demonstrates understanding of a new concept by using simpler words to explain the concept (“The rock sank to the bottom, but the boat stayed on top of the water.”). • adds a connected idea to another child’s comment (Child One: “My rock went to the bottom.” Child Two: “Your rock sank!”). • uses new words when engaged in child-initiated play.	The teacher: • identifies, labels, and discusses the meaning and function of the pictures and objects placed around the room when changes are made in the classroom environment to support a new theme. • uses and explains new words daily when speaking with children. • provides and discusses examples and non-examples of word meanings. • discusses new word meanings before, during, and after book reading, making connections to what children already know. • creates opportunities for children to experience the new words in multiple ways across multiple experiences. • listens for child usage of new words that are introduced.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child uses increasingly larger vocabulary.	II.D.4. Child uses a large speaking vocabulary, adding several new words daily.	The child: • uses words to communicate feelings, needs, and wants. • adds a relevant idea to a previous comment by another person. • asks questions and adds information related to the current topic of conversation or book. • uses descriptive words ("My baby sister laughs loudly." "That's a funny story."). • uses new words in retelling/acting out a story read by the teacher. • tells a simple personal narrative, focusing on favorite or most memorable parts.	The teacher: • asks children to tell how they are feeling or what they need/want. • provides numerous daily opportunities for children to talk to other children and adults in the classroom. • provides feedback to encourage, clarify, and evaluate children's responses. • encourages children's verbal input during book reading, including having them respond to questions or relate the book to their own experiences. • provides new experiences and content for the children to discuss and interact.
Child participates through actions to begin to develop common object names and phrases.	II.D.5. Child increases listening vocabulary and begins to develop vocabulary of object names and common phrases.	The child: • follows directions when introduced to a situation. • participates as a speaker and listener in group activities including child-initiated imaginative play (plays the role of the store clerk or a waiter in a restaurant). • responds appropriately to simple instructions given by the teacher (follows two consecutive instructions, or chooses two flowers from the tray and draws pictures of them). • follows a command using actions. • sequences story picture cards. • retells a story in his	The teacher: • finds out if new words learned in English are only new labels for concepts already known or if the concept itself must be taught. • illustrates meanings with pictures or diagrams. • uses artifacts and hands-on manipulatives. • uses anchor charts, graphic organizers, and semantic mapping. • role plays or pantomimes. • makes drawings on the dry erase board. • makes use of how things are said (volume, pitch, rate, and emphasis), using as many cues as possible to help child gain the meaning. • uses the Spanish word and has the child repeat the new word in English, if necessary ("*El tiene hambre*." "He is hungry." "Hungry"). • uses facial expressions, hand gestures or acts out stories to promote child's understanding. • restates important information by using synonyms, cognates, paraphrasing, and visual cues.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
		own words. • role plays or pantomimes stories. • listens attentively and responds to stories and poems (tells a story, enacts a poem, draws a picture to illustrate a story or poem).	• uses the child's home language as base to support the development of listening skills in English. • provides instruction or command in the child's home language followed by the command in English (as needed).
Child participates through actions to begin to develop common object names and phrases.	II.D.6. Child increases listening vocabulary and begins to develop vocabulary of object names and common phrases in English. (ELL)	The child: • answers questions at circle time about construction using a new word learned from the pretend and learn hardware store. • sorts, labels, and describes different kinds of categories such as food, clothing, and transportation. • identifies which objects are in a specific category and which are not.	The teacher: • makes connections among a variety of words aligned to a specific classroom theme. • connects new words into groups or categories so that children begin to understand how the words/objects relate to each other. • makes connections to native language whenever possible and uses visual supports to aid understanding. • labels by providing the category name of the different ideas or objects that appear in storybooks and other written text ("These are flowers, those are trees."). • models use of and teaches category group labels such as vehicles, clothing, and furniture. • provides opportunities for children to manipulate items into different categories, and has children share their collections by verbally labeling each item and the category name. • highlights the cognates for each of the categories especially in languages such as Spanish. • observes children sorting and labeling materials during child-initiated play.

II. LANGUAGE AND COMMUNICATION DOMAIN

E. Sentences and Structure Skills

Effective communication requires that children use their knowledge of vocabulary, grammar, and sense of audience to convey meaning. Four-year-olds become increasingly adept at using language to express their needs and interests, to play and pretend, and to share ideas. Children's use of invented words and the over generalization of language rules (for example, saying "foots" instead of "feet" or [Spanish] "yo no cabo" instead of "yo no quepo") is a normal part of language acquisition. Sentence and grammatical complexity develops in young children with plenty of opportunity for rich conversation. It is important that time is spent in authentic speaking opportunities. Also, teachers can support English language development through more specific playful language-building activities (LEER MAS, 2001).

By around 48 Months of Age	**End of Prekindergarten Year Outcomes**	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
Child uses simple sentences of three to four words to express needs.	II.E.1. Child typically uses complete sentences of four or more words and grammatical complexity usually with subject, verb, and object order.	The child: • tells about a family experience using longer and more complex sentences. • participates in a long conversation (staying on topic and taking turns) about the structure he is building in the block center. • answers questions and adds ideas using complete sentences while the teacher leads the class to create a chart detailing what the children know and want to know about an upcoming topic/concept.	The teacher: • plays a word substitution game that expects each child to repeat the sentence with a different ending ("I went to the zoo and saw a _____." Spanish ex: "Fui al zoológico y vi ___"). • helps children tell one sentence about their drawings or favorite objects ("My big sister plays basketball." "Here's a picture of my teddy bear." Spanish examples: "Mi hermana juega tenis." "Miren mi dibujo de los animales."). • models how and encourages children to play "Guess What I Am?" by describing a familiar object hidden in a cloth bag in order to guess its identity ("I feel something hard. It has four legs. It has a long neck and a small head."). • demonstrates by doing a "think aloud," telling how to think about what you want to write or draw in a journal, writing/drawing it, and then sharing about one's own journal. • provides home and school connections for the child.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child may over generalize grammatical rules.	II.E.2. Child uses regular and irregular plurals, regular past tense, personal and possessive pronouns, and subject-verb agreement.	The child: • uses the correct tense when describing something he did yesterday or last week. • says "went" although a younger classmate says "goed." • identifies the work that is hers, using "my" and "mine" and those that belong to friends, using "his" or "hers."	The teacher: • models and helps children describe sets of multiple and single objects to practice the use of correct subject-verb agreement. • plays word games to encourage children to say phrases and sentences with irregular plurals (foot/feet, mouse/mice, child/children) ("Here is one foot, now there are two _____. Now there is one _____."). • demonstrates how to tell about one's own picture and about another child's picture beginning with the words "my picture" or "his picture."
Child links two ideas together by combining sentences	II.E.3. Child uses sentences with more than one phrase.	The child: • talks with a friend as they play using sentences with more than one phrase ("Let's go to the store and get milk for the baby."). • participates in a circle time discussion, adding information in multiple phrases ("Birds build nests in the trees and then lay their eggs."). • describes a family event, combining phrases to show sequence ("We went to the grocery store and then drove back home.").	The teacher: • pairs children together with pictures to play a "silly sentence" game with one child saying the first part of the sentence and the other child adding a phrase to it ("My yellow cat climbed up the tree. . . to catch a falling star."). • encourages children to share information during show and tell about the objects. • models describing the events of the day by using more complex sentence structures. • describes new objects by using the name of the object and what, how, or where it is used ("This is a bulldozer and it is used to push trees and bushes into a big pile.").

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child uses simple sentence structures with usually one idea.	II.E.4. Child combines more than one idea using complex sentences.	The child: • describes what happened when she put the last block on the tower and it fell. • tells a friend what to do when taking an order for pizza in a pretend restaurant. • reminds the teacher that he has to go get the notes to go home from the office and hand them out to the children.	The teacher: • provides simple science experiments and encourages children to tell what happened ("The paper clip sank to the bottom when I put it in the water. I think the rock will sink, too."). • helps the children use complex sentences when retelling familiar stories ("When Goldilocks woke up and saw the three bears, she went running back through the forest."). • encourages children to describe common occurrences using complex sentence structures ("When we first come to school in the mornings, we have to put our things away.").
Child understands and uses increasingly longer sentences.	II.E.5. Child combines sentences that give lots of detail, sticks to the topic, and clearly communicates intended meaning.	The child: • describes a family trip, combining sentences and giving lots of detail ("When my grandpa came over, we went to the park. We had fried chicken, and played on the swings."). • participates in a circle time discussion of butterflies and builds on the information from nonfiction books the teacher has read and previous discussion by talking to the teacher when the child sees butterflies outside later in the day. • asks many questions about the police officer when he comes to the classroom for a visit.	The teacher: • provides an interesting nonfiction book and prompts the children to discuss what they are seeing and hearing in the book ("What is the caterpillar doing? How do you think he feels inside the cocoon?"). • models and uses guiding questions to help children add details to telling about a personal event ("This weekend my family had a picnic. My children were there and so was my mom. We ate sandwiches and played on the playground. I was so tired when I went home but we had such a good time."). • prompts for more detail, clarification, and elaboration as the children relate stories or show and tell items ("Juan, where did you get that stuffed dog? Where has he gone with you?").

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands and uses increasingly longer sentences.	II.E.6. Child engages in various forms of nonverbal communication with those who do not speak her native language.	The child: • uses gestures, or points to objects or people. • responds to greetings with simple words, gestures, and other nonverbal behavior. • uses gestures to communicate basic needs (points toward door when needing to go to the restroom).	The teacher: • is aware that English language learners, depending on their comfort level with English when they enter the prekindergarten classroom, may pass through a "silent" stage before they begin speaking in English. This “silent” period should not be seen as a reflection of the child’s abilities or willingness to participate. • provides a non-invasive environment. • engages learners in cognitive learning strategies, choral responses, group discussions. • creates multiple opportunities for children to use English in both English as a second language and bilingual classroom settings.
Child understands and uses increasingly longer sentences.	II.E.7. Child uses single words and simple phrases to communicate meaning in social situations.	The child: • identifies by name a few familiar objects, people, and events (family members; body parts; clothing; pets; foods; common occupations; seasons; common school, classroom, and home objects). • speaks in isolated words (usually a single noun or verb), depending heavily on gestures to express meaning.	The teacher: • begins all lessons by pre-teaching the vocabulary and language objective. • focuses on the language function that the child will need to use to carry out the lesson. • focuses on meaningful activities that involve "hands on," choral readings and singing. • pre-teaches new vocabulary words in the child’s home language and also English (as needed). • uses cognates when possible for ELLs to make cross-language connections.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
	II.E.8. Child attempts to use new vocabulary and grammar in speech.	The child: • comprehends a limited number of common words and simple phrases in conversations held on topics of personal relevance (basic greetings and courtesies when spoken slowly and with extensive rephrasing, repetitions, and contextual clues). • comprehends and follows simple routine instructions for classroom activities that depend on gestures and other contextual clues ("Let's line up for the restroom.").	The teacher: • groups children of similar proficiency levels in groups of two to three to facilitate instructional conversations. • groups English language learners with English native speakers so they can hear English spoken regularly (English phonemes and vocabulary).

III. EMERGENT LITERACY: READING DOMAIN

Becoming literate is one of the most important milestones for young children to achieve. According to National Research Council estimates from 1998, if children receive proper exposure and systematic opportunities to develop foundational language, reading, and emergent writing skills during early childhood, as few as five percent may experience serious reading difficulties later. The literacy experiences provided during the prekindergarten year help form the basis for learning to read, particularly when teachers emphasize the key predictors of early literacy: oral language, alphabetic code (letter knowledge, phonological awareness), and print knowledge and concepts. Children develop the understanding of the everyday functions of print, gain the motivation to want to learn to read and appreciation of different forms of literacy, from nonfiction and fiction books, to poems, songs, and nursery rhymes, by being read to and interacting with stories and print.

As they watch adults engage in reading and writing activities, they want to be able to read and write as well. When children interact with language in these formats, their ability to respond to and play with the sounds in language increases. This awareness of the sounds in language, or phonological awareness, is one of the key predictors of later reading success. Children develop this awareness that words are made up of sounds which can be put together and taken apart. Recent research has provided new insights into the order in which children acquire this awareness. In the early stages, children are able to detect larger phonological units such as words and syllables. As their awareness deepens, they are able to manipulate the smallest units of sound called phonemes. Print awareness and letter knowledge must also be developed through planned, playful activities that engage children in noticing the letters in their names and the names of their classmates. As their language abilities increase, their understanding of what is read aloud to them also increases, as demonstrated through the questions they ask and answer, and their reenacting or retelling of stories. The process of transfer (with literacy-based ESL and oral language beginning in prekindergarten) requires that we take what children already know and understand about literacy in their primary language and ensure that this knowledge is used to help them gain English language and literacy skills. For ELL children difficulties in transfer may appear in syntax, homonyms, inference, cultural nuances, idioms, and figurative language. For children who are learning English, effective second language reading instruction requires an understanding of and is guided by knowledge based on assessment, cultural responsiveness, gradual release, strategic use of language, and appropriate instruction (LEER MAS, 2001).

This is an important time for 4-year-olds to develop their sense of self and ethnic identity. One strategy to support this development is the use of linguistically and culturally relevant texts whenever possible. Teachers of English language learners can help children understand who they are and where they come from when they connect to children's lives in a meaningful way, given their cultural and linguistic diversity.

III. EMERGENT LITERACY – READING DOMAIN

A. Motivation to Read Skills

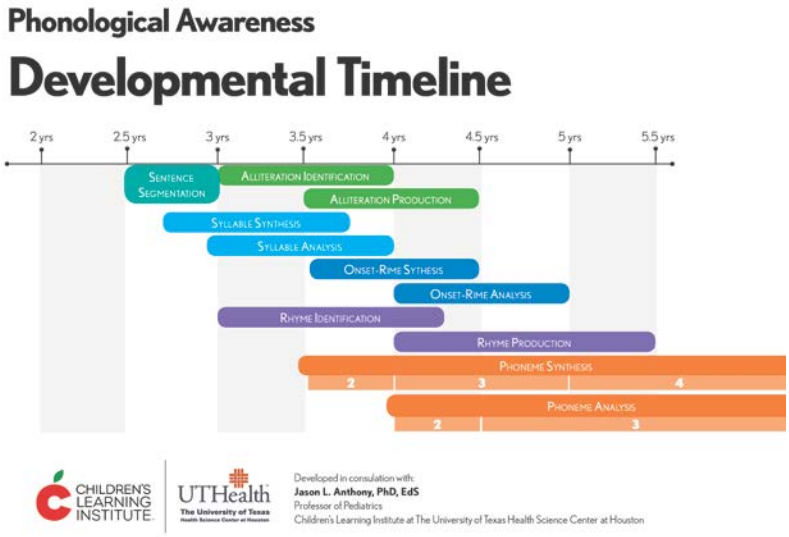
To ensure that all children enter school ready to learn, early education efforts must encourage emergent literacy. When optimal conditions exist in a child's environment, literacy develops naturally, and one of the goals of early education must be cultivating that optimal environment. Prekindergarten children benefit from classroom activities and environments that create an association between reading and feelings of pleasure and enjoyment, as well as learning and skill development. These early experiences will come to define their assumptions and expectations about becoming literate and influence their motivation to work toward learning to read and write. Children may have difficulty comprehending read alouds or listening to stories without any background support, particularly if they have limited experiences with the concepts included in the story or text .ELL children benefit from repetitive exposure to pictures and other media pertinent or associated with the content of stories read aloud in English. ELL children also will benefit from making connections to text in their home language for better comprehension when bilingual strategies are used to facilitate comprehension during readings of English text (LEER MAS, 2001).

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child enjoys being read to and knows when a favorite story has a part left out.	III.A.1. Child engages in pre-reading and reading-related activities.	The child: • repeats or "chimes in" on repeated parts of predictable stories. • engages in acting out a read aloud during circle time or small-group instruction • re-enacts a favorite story with puppets, props, or felt board characters. • asks a teacher to re-read a favorite book. • holds a book right side up and turns the pages one at a time • verbalizes while looking at pictures and turning pages of a book	The teacher: • reads books with storylines and characters that are easy for the child to understand, remember, and re-enact. • reads books with repeated parts and encourages the child to join in during the reading. • discusses what the author and illustrator do. • rereads favorite books that the child engages and interacts with. • uses shared, interactive, guided, and independent reading to demonstrate and discuss appropriate reading behaviors (starting location, left to right movement across print, return sweep, voice/print matching) on materials such as lists, menus, songs, signs, and charts (with print large enough for children to see).
Child enjoys looking at books and telling a story from the pictures or from memory.	III.A.2. Child self-selects books and other written materials to engage in pre-reading behaviors.	The child: • chooses a book independently and returns it to the shelf when the "reading" is complete. • holds a book right-side-up and turns the pages one at a time in a way that will not damage the book. • selects and interacts with a "book" in a software program by clicking on the appropriate icon, moving through the program, and closing the program when finished. • listens to audio books following along in the book and turning the pages at the appropriate time. • handles and cares for books in a respectful manner. • reads a book to a doll or stuffed animal at the library or dramatic play center. • selects the reading/library center during free play.	The teacher • models and discusses appropriate book handling behaviors in an ongoing way. • creates a warm comfortable place for children to engage in independent pretend reading. • teaches children to use technology-based text materials and provides opportunities for use. • includes both fiction and nonfiction books in read aloud selections and reading/library center. • places books (and manipulatives) that have been read and acted out in centers for children to have access to during independent play. • places concept or theme-related books in each center to supplement center and project activities (books on buildings or bridges in the block area, menus and cookbooks in dramatic play, books on plants in the science center).

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child notices environmental print and connects meaning to it.	III.A.3. Child recognizes that text has meaning.	The child: • asks the meaning of text such as posters, charts, or digital materials encountered throughout the classroom or school). • asks or notices what a note from home says. • asks or notices the meaning of the writing such as on a food container or signs. • generates purposeful/authentic print.	The teacher: • models using information gained from print (makes play dough by following a recipe, talks about insects having six legs and spiders having eight legs after reading a nonfiction book about spiders). • encourages children to ask questions about what information can be learned from print and the purposes of written language. • models using print to find the answers to questions children ask ("Let's look in this book to see if we can find out how the caterpillar turns into a butterfly."). • discusses what is happening in pictures, but emphasizes that the print is what is read. • discusses meanings of new/unusual words and passages before and after reading text. • provides opportunities and encourages the child to create and use purposeful/authentic print.

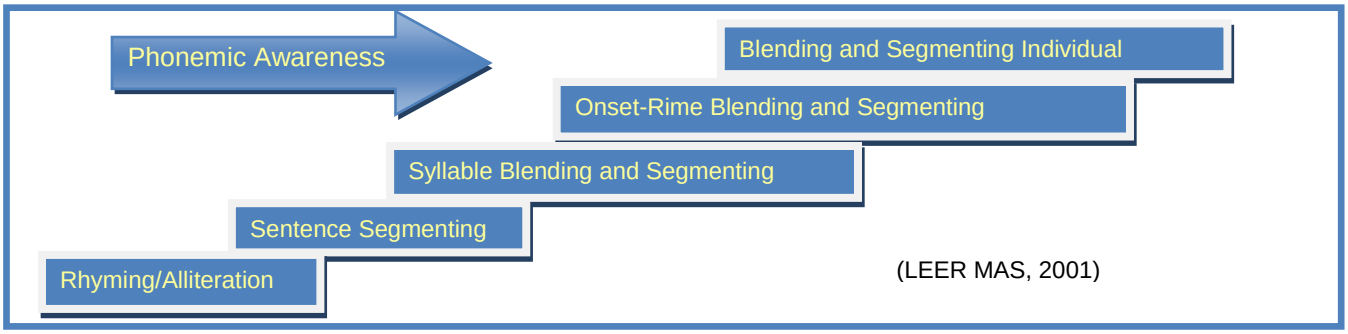
B. Phonological Awareness Skills

Phonological awareness is an auditory skill that involves an understanding of the sounds of spoken language. This sensitivity to the sound structure of language is highly predictive of success in beginning reading. Phonological awareness generally develops from sensitivity to large units of sound, like words and syllables, to sensitivity to smaller units of sound, like individual phonemes. For example, children are able to detect and manipulate words in phrases before they can detect or manipulate syllables, and they can detect and manipulate syllables before they can detect or manipulate phonemes or individual sounds in words. Task difficulty is another important consideration in phonological awareness development and instruction. Easier tasks include identification and synthesis (e.g., blending). More challenging tasks require analysis (e.g., segmenting, deletion). Phonological awareness includes being able to recognize individual words in a spoken sentence, blending and dividing words into syllables (beginning with compound words which, because each syllable has meaning connected to, are easier for children to work with), adding and taking those meaningful units, recognizing and producing rhyming words, identifying words that sound the same at the beginning, and for some children, blending words at the phoneme or single sound level. It is important to remember that letter knowledge (e.g., letter-sound correspondence) and phonological awareness acquisitions work together, with skill development in one area reinforcing development in the other. Phonological awareness represents a crucial step toward understanding that letters or groups of letters can represent phonemes or sounds (the alphabetic principle). Because phonological awareness development begins before children learn letter-sound correspondences, fostering phonological awareness development does not necessarily require the use of print. However, once letter knowledge begins to develops, children can benefit from inclusion of letters in phonological awareness activities. Some basic proficiency in English may be prerequisite to the development of phonological awareness in English for first- and second-language learners. ESL children draw upon their phonological awareness skills in their first language when developing phonological awareness in a second language. Research demonstrates that phonological awareness in English and Spanish are highly related in bilingual children; therefore children in Bilingual/ESL instruction should benefit from being simultaneously taught similar phonological awareness skills in both languages. Manipulating individual sounds, or phonemes, in words is the highest level of phonological awareness. Although some prekindergarten children may be able to perform simple manipulations with individual phonemes (e.g., removing /s/ from seat makes eat), it is not appropriate to expect all prekindergarten children to be able to perform difficult manipulations with individual phonemes (e.g., segmenting "stack" into its four constituent phonemes, i.e., /s/ /t/ /æ/ /k/). The above Developmental Timeline represents the most current research concerning when children normally develop various phonological awareness skills.



Source: Anthony, Jason L.; C.J. Longian; K. Driscoll; B.M. Phillips. 2003. "Phonological Sensitivity: A quasi-parallel progression of word structure units and cognitive operations." Reading Research Quarterly, Vol. 38, 470-487.

The Spanish Phonological Awareness Continuum



By around 48 Months of Age	**End of Prekindergarten Year Outcomes**	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
Note: Phonological awareness is just beginning to develop between the ages of 36 and 60 months. Children should be engaged in listening to books, poems, nursery rhymes, and songs that feature rhyme and alliteration.	III.B.1. Child separates a normally spoken four-word sentence into individual words.	The child: • repeats a sentence spoken by the teacher, stepping forward as the word he is assigned is spoken in the sentence. • says (and repeats) a sentence so she has the sentence in her head, segments each word one from the other using objects, fingers, or even bodies to stand for each individual word in the sentence (as the child says, "I like petting dogs," he holds up a finger or moves a counter for each word as it is said.).	The teacher: • models sentence segmenting with two word sentences (such as "I jump."). • encourages children to segment more difficult sentences with more words and words with more than one syllable. • connects a child's name to a single movement (word) to help children understand the concept of word ("Vanessa is one person, one word, so we move one time.").
	III.B.2. Child combines words to make a compound word.	The child: • creates a new word by putting two words together to make compound words ("dog" + "house" = "doghouse" ; Spanish examples: "lava" + "manos" = "lavamanos"; "toca" + "discos" = "tocadiscos"; "arco" + "iris" = "arcoiris"; "saca" + "puntas" = "sacapuntas"). • uses picture cards to create compound words. • makes compound words by responding with a second part after the teacher has provided the first part. • names the two words that are said in a compound word when prompted by the teacher.	The teacher: • demonstrates using compound word puzzles and picture cards when practicing blending and taking apart compound words they say aloud. • provides compound word puzzles and picture cards for children to use in independent play practice. • encourages children to make a variety of compound words by adding different endings to the beginning she says (say "fire," ending responses such as "fly," "man," "works," "house"). • gives examples of two words that when put together become a compound word.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
	III. B.3. Child deletes a word from a compound word.	The child: • takes compound words apart by deleting either the first or second part and stating the word that is left (e.g., “sunflower” -“sun” = ”flower”; in Spanish, “arcoiris” - “arco” = “iris”).	The teacher: • says compound words and then leaves off first or second half (say “sunshine” then say “sun”; child responds “shine”).
	III.B.4. Child blends syllables into words.	The child: • claps with the teacher as they say children’s names together, segmenting the parts. • combines two syllables together to say a word (e.g., “pa”+ “per”= “paper”; Spanish examples: “pa” + “pel”= “papel”; “li” + “bro” = “libro”). • provides second syllable of theme-related objects when the teacher says the first syllable, then entire word (teacher says “buck”; child says “et”= “bucket”). • claps the syllables in her own names, and classmates’ names. • hears a familiar word (up to three syllables) and claps the syllables. • hears a classmate’s name segmented and blends it back together.	The teacher: • models clapping one time for each syllable in children’s names. • encourages children to clap once while saying each syllable in children’s names. • models putting pictures (and the syllables that go with each part) of familiar two-syllable objects cut into two pieces together to form a word. • encourages children to practice putting picture pieces (and words) together while also putting the sounds together to say the word. • says the first syllable in a familiar two-syllable word and encourages children to fill in the second syllable.
	III.B.5. Child can segment a syllable from a word.	The child: • hears the parts of two-syllable words and fills in the remaining syllable when the teacher asks what is left when the first syllable is removed (“ladder” - “ladd” = ”er” or “puzzle” – “puzz” = “le” Spanish examples: “árbol” – “ár” = “bol”; “cama” – “ca” = “ma”). • chooses a theme-related object (with from one to three syllables) and deletes the initial or final syllable from that word. • participates in word games that focus on playing with syllables.	The teacher: • provides opportunities for children to clap the syllables in their names or other familiar words. • provides pictures cut into three pieces of familiar three-syllable words, models, then engages child in practicing taking the pictures apart while saying the word aloud.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child can distinguish when two words rhyme.	III.B.6. Child can recognize rhyming words.	The child: • points to the picture that does not rhyme with the other two pictures. • gives the pairs of words from a nursery rhyme that rhyme. • identifies the words that rhyme in a read aloud book written in rhyme. • identifies two objects out of a rhyming basket that rhyme. • generates nonsense words that rhyme with a given word. • participates in word play games that focus on making rhyming words ("Willoughby, Walloughby, Woo"; in Spanish: tío, mío, sío).	The teacher: • recites nursery rhymes that have words that rhyme and draws child's attention to how those words have the same sounds at the end. • reads books that have words that rhyme and helps child notice the sounds in those words. • plays rhyming games with objects and pictures that rhyme. • sings songs and engages children in finger plays that rhyme.
Child can distinguish when two words begin with the same sound.	III.B.7. Child can produce a word that begins with the same sound as a given pair of words.	The child: • pairs pictures that begin with the same sound. • identifies words in tongue twisters that begin with the same sounds. • sorts objects into piles that begin with the same sounds. • participates in word play games that focus on words that begin with the same sound ("Mappy Mirthday Moo Moo").	The teacher: • provides common objects that children can name and sort into groups that begin with the same beginning sounds. • plays word games focusing on words that begin with the same sound.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
	III.B.8. Child blends onset (initial consonant or consonants) and rime (vowel to end) to form a familiar one-syllable word with and without pictorial support.	The child: • selects the appropriate picture from several pictures when the teacher says a word segmented between the onset and rime (e.g., when shown several pictures, and adult says "r"+"ug," child selects the picture of the rug. Spanish example: "p"+ "an"; child selects a picture of bread). • sorts objects by all that begin with a given onset, like pan and pie; Spanish example: sol y silla.	The teacher: • models using two pieces of a picture of a familiar one-syllable word while orally blending and taking the words into onset (consonant/consonants) – rime (rest of the word) segments. • provides two pieces of a picture of a familiar one-syllable word for children to practice manipulating during play while orally blending and taking the words into onset (consonant/consonants) – rime (rest of the word) segments. • displays pictures or objects and has child point to or select picture/object that teacher says with a pause between onset and rime.
	III.B.9. Child recognizes and blends spoken phonemes into one syllable words with pictorial support.	The child: • selects a picture and says the letter sounds for the word ("k" + "e" = key; "b" + "e" = bee ; "n" + "e" = knee) in Spanish selects a picture and the letter sounds for the word ("s" + "o" + "l" = sol; "p" + "e" + "s" = pez).	The teacher: • models using pictures to identify and blend phonemes into words. • displays pictures and has the child blend the phonemes to make the word. • models blending phonemes to produce one syllable words and has child practice.

III. EMERGENT LITERACY – READING DOMAIN

C. Alphabet Knowledge Skills

Letter knowledge is an essential component of learning to read and write. Young children learn best when information is presented in context and when educators provide opportunities for children to create experiences that make the material meaningful. Rote practice (or the "skill and drill" method) can result in frustration and negative attitudes toward learning. Knowing how letters function in writing and how these letters connect to the sounds children hear in words is crucial to children's success in reading. Combined with phonological awareness, letter knowledge is the key to children understanding the alphabetic principle. Children will use this sound/letter connection to begin to identify printed words, such as their names and other familiar words.

By around 48 Months of Age	**End of Prekindergarten Year Outcomes**	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
Child names the first letter of his or her name.	III.C.1. Child names at least 20 upper and at least 20 lower case letters in the language of instruction.	The child: • names letters on name cards, posters, books, and signs around the room. • participates in circle time alphabet identification games ("If Your Name Starts With," name cheers). • manipulates letters in a variety of ways (finds letters buried in sand; letter sorts, matching upper/lower case letters).	The teacher: • introduces all of the upper and lower case letters in a meaningful way. • reads aloud a variety of alphabet books. • names letters in a variety of situations, helping child distinguish one letter from another, making meaningful connections for the child (connecting with a child's name or other important words, similarities and differences between letters). • gives the child many opportunities to say the names of letters when working with books, charts, letter/word walls, or alphabet manipulatives (magnetic or plastic letters, puzzles, stamps, etc). • has the child name the first letter in a word or a specific letter when reading books, charts, or poems. • has the child match plastic letters to an alphabet array on a mat and say each letter as it is matched. • plays games with the child's name printed large enough for child to see the print (name puzzles, name sorts, fishing for names).

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child identifies the letter associated with the sound of the first letters of his name.	III.C.2. Child recognizes at least 20 distinct letter sounds in the language of instruction.	The child: • identifies the letter that makes a given sound. • participates in circle time sound/letter identification games ("I spy something that starts with /s/. What letter is that? What do I see?"). • points to target sound when shown 2–4 letters.	The teacher: • introduces, in a meaningful way, all of the sounds letters make. • connects the sound that a letter makes as she is writing a word in front of the child. • instructs the child in matching letter sounds to the letter name and the printed letter shape ("The story says, 'Here is the dog.' Let's find the word dog in the book. Dog starts with /d/. That is the letter d. Here is the word that starts with that letter."). • models writing children's names making letter sounds as he writes each letter ("John starts with /j/. What letter makes that sound?"). • models writing for authentic reasons, saying words slowly, and matching sound to the letter being written. • engages children in interactive writing, encouraging children to write the initial sounds of words with letters they are beginning to recognize.
Child produces the correct sound for the first letter of his name.	III.C.3. Child produces at least 20 distinct letter sound correspondences in the language of instruction	The child: • makes the sounds in her first name as she attempts to write the letters. • produces the correct sound when shown the first letter of her name. • makes the correct letter sound while pointing to a letter in a book or on a poster. • sorts objects in letter container (find the items that start with "B").	The teacher: • connects the sound that a letter makes with that specific letter ("Matthew starts with 'm'. 'M' makes the /m/ sound"). • models, explicitly, going from the letter that children can see to the sound that the letter makes ("Cat starts with 'c'. 'C' says /k/"). • points to a letter in a written word in a printed text, such as a chart, poster, book, song, or sign, and asks children to make the sound of that letter. • gives the child a small set (3–5) letters and asks her to produce the sounds of each letter. • provides the child with opportunities to practice making letter/sound connections with names and other targeted words in independent play.

D. Comprehension of Text Read Aloud Skills

Frequent book reading relates strongly to school readiness: children who are read to on a regular basis have a higher likelihood of acquiring age-appropriate language skills. Exposure to many kinds of books, both fiction and nonfiction, helps prekindergarten children build vocabulary, make connections to text, and become familiar with how stories and different texts work. Children develop concepts of story structures, character actions, and knowledge about informational text structure which influences how they understand, interpret, and link what they already know to new information. Children's comprehension of text is influenced by real-life experiences, including virtual learning experiences, and through explicit vocabulary instruction received before and during their time in the classroom. Reading books in English with ELL children will increase their knowledge of English language and vocabulary. In classrooms with children who are learning English, it is also critical that children read books in their home language whenever possible.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child interacts with a story as it is being read aloud.	III.D.1. Child retells or re-enacts a story after it is read aloud.	The child: • participates in acting out a story she is familiar with, either in circle time or in a small group. • retells and sequences the main events of a story. • connects personal experiences to an event in a story (such as relating a personal trip to the zoo after a zoo story has been read). • reads using the pictures in the books to recall the words of his favorite stories. • creates original or alternate endings for stories. • tells what might happen next if the story continued.	The teacher: • provides props such as puppets or felt characters, for children to use while acting out a familiar story or fairy tale. • helps children construct a story map with a clear beginning, middle, and end. • provides story cards to assist children in sequencing retellings of stories. • encourages children to provide sound effects through musical instruments or environmental noises that fit what is happening in the stories. • extends the story into centers for children to continue the story line, characters, or concepts in other ways (draw a picture about the story in the art center, plant carrot seeds/top in the science center). • places items used during circle time in centers for the children to use and interact with during independent play. • reads texts that are culturally relevant to children on a regular basis. • invites storytellers into the classroom.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child interacts with books by describing what is seen/read in the book.	III.D.2. Child uses information learned from books by describing, relating, categorizing, or comparing and contrasting.	The child: • relates own experiences to facts read in books ("When I went to the doctor. . ."). • demonstrates how to plant seeds after hearing a book about planting seeds. • describes the reasons for sorting airplanes and helicopters separately from boats or cars.	The teacher: • reads informational books. • engages the child in activities after reading an informational text that highlights the content learned from the story (creates a graphic organizer that separates spiders from insects based upon physical characteristics). • extends informational texts into centers by providing materials for children to interact with (such as a magnifying glass to examine plant parts).
Child asks and answers age-appropriate questions about the book.	III.D.3. Child asks and responds to questions relevant to the text read aloud.	The child: • asks questions about the story details and events ("What is that? Why is she crying?"). • responds to questions regarding the story or information in the text. • responds to questions about story details. • comments about the characters or actions within a story. • discusses other ways a story might end. • answers questions about story elements such as main character, setting, and story problem and solution.	The teacher: • provides experiences that connect to specific aspects of a story plot (making gingerbread men after reading a story about a gingerbread man). • introduces and discusses unknown words. • helps child create new endings to familiar stories using props, puppets, dictation, and/or class-made books. • asks questions about story details and events ("What just happened?" "What was so silly about. . .?" "How did that work?" "Why did the author write this?" "What is something new you learned?") • facilitates making self to text connections.
	III.D.4. Child will make inferences and predictions about text.	The child: • actively participates while being read to by predicting what might happen next in the story. • predicts what might happen next in a text based on the cover, title, or illustrations.	The teacher: • purposefully selects texts that lend themselves to predicting and inferring to read aloud. • engages the child in thinking about the story by stopping at strategic points in a story

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
		• tells the story during a picture walk. • responds appropriately to "why" questions and justifies her answers based on clues in the picture/text. • discusses what might happen if different characters were in the story.	and having child predict what might happen next. • models making predictions and inferences using think aloud strategies. • points out strategies good readers use while reading. • asks questions to encourage making predictions ("What might happen next?" "What would happen if. . .?" "How will that work?"). • reads different versions of a story to support making predictions. • poses inferential questions based on clues in the pictures or in the text, such as "Why did. . ." when the answer is not explicitly stated. • follows up children's responses with "Tell me why you think that? What did you notice?"

III. EMERGENT LITERACY – READING DOMAIN

E. Print Concepts

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands that illustrations and print carry meaning.	III.E.1 Child can distinguish between elements of print including letters, words, and pictures.	The child: • points to a word rather than a picture when prompted. • points to specific letters within a word when prompted. • uses a pointer to read print during "read around the room" activities.	The teacher: • models the differences between pictures and words and letters and words. • asks children to identify a familiar word in books and other print materials. • engages children in modeled and shared writing and rereading opportunities using a pointer. • asks children to locate/frame a word during a shared reading of enlarged text.

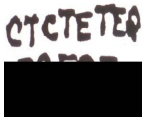
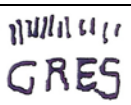
By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child imitates actions that demonstrate that text progresses across pages.	III.E.2 Child demonstrates understanding of print directionality including left to right and top to bottom.	The child: • imitates reading behaviors (moving top to bottom and left to right; return sweep) on charts, lists, and big books during "read around the room" center. • uses a pointer to reread big books or enlarged text. • uses finger to track print when reading simple or familiar texts.	The teacher: • uses shared and interactive reading to demonstrate and discuss appropriate reading behaviors (starting location; left to right movement across print; return sweep; voice/print matching) on materials such as lists, menus, songs, signs, and charts (with print large enough for children to see). • shares the pointer with children during shared re-reading experiences.
	III.E.3 Child can identify some conventional features of print that communicate meaning including end punctuation and case.	The child: • points to or names a period at the end of a sentence. • recognizes that the first letter in a name is capitalized. • recognizes that the first word in a sentence is capitalized.	The teacher: • models and thinks aloud while writing to show proper use of upper and lower case and end punctuation. • uses interactive writing to encourage children to contribute letters and end punctuation to a shared work. • when rereading enlarged text, asks "What's this called?" when pointing to a period. • stops while writing a morning message to say, "What should I put at the end?"

IV. EMERGENT LITERACY WRITING DOMAIN

Prekindergarten children generate hypotheses about how written language works and begin to explore the uses of writing for themselves. Initially, they may ask adults to write their names, signs, and letters for them. Children will later independently imitate adults by writing their own thoughts and ideas. This “pretend writing” is the beginning stage of writing development. Through these early writing experiences, young children will develop initial understandings about the forms, features, and functions of written language. Over time, children’s writing attempts more closely approximate conventional writing. In Prekindergarten classrooms, teachers serve as models and guides, writing for different purposes for and with children. Thus, children learn to write through many experiences.

Fine motor skills may impact children’s ability to write legibly; however, this should not limit their opportunities to write for meaning. The child’s level of fine motor development should determine the tools and the size of the surfaces that are provided for writing experiences. Fine motor skills can be developed alongside writing and through writing as children progress through the developmental stages.

Developmental Stages of Writing (English)

1		Random scribbling – Child writes with the starting point any place on the page.	**2**		Controlled scribbling – Progression is from left to right.
3		Circular scribbling – Circles or ovals flow on the page.	**4**		Drawing – Pictures tell a story or convey a message.
5		Mock letters – These can be personal or conventional symbols, such as a heart, star, or letters with extra lines.	**6**		Letter strings – These move from left to right and progress dawn the page of actual letters. They have no separations and no correlation with words or sounds.
7		Separated words – Groups of letters have space in between to resemble words.	**8**		Picture labeling – A picture's beginning sound is matched to a letter (Dog).
9		Awareness of environmental print – Environmental print, such as names on cubbies, is copied.	**10**		Transitional stage spelling or invented spelling – First letter of a word is used to represent the word (I went to the nature museum.).
11		Beginning and ending letters are used to represent a word (cat).	**12**		Medial sound is a consonant (grass).
13		Medial sound is in correct position, but the vowel is wrong (grass).	**14**		A child hears beginning, medial, and ending letters (I like to pick flowers.).
15		Phrase writing develops (rabbit in the sun).	**16**		Whole-sentence writing develops (This pumpkin is mine.).
17		Whole Sentence Writing – Child writes a complete sentence.			

IV. EMERGENT LITERACY – WRITING DOMAIN

A. Motivation to Write Skills

As children watch adults write for many purposes, they develop the understanding that print conveys meaning. Initially, children engage in drawing or scribbling as a way to communicate. These are the earliest stages of writing. Young children sketch lines and scribble "notes" in an attempt to imitate adults' writing behaviors and begin to make connections between print and spoken words. With this understanding of the function and meaning of print comes the motivation to use print in the same manner. All efforts to convey meaning in the form of scribbles, letter-like forms, or strings of letters should be celebrated. Children also engage in using print to convey their meanings in different situations and for different purposes. As children interact with each other in play, they make lists, take orders, label, and leave notes to convey what has occurred during their play.-Children may also begin to write personal stories and/or write based on "mentor" texts (texts that can be used as a model for writing) read aloud.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child engages in free drawing and writing activities.	IV.A.1. Child intentionally uses marks, letters, or symbols to record language and verbally shares meaning.	The child: • uses letter-like shapes when taking an order at a restaurant during dramatic play. • writes a few letters or mock letters as a caption under a drawing and "reads" it to a friend. • builds and labels a block structure to represent a story setting (such as the house of the three bears). • writes and reads a message for the teacher on the "message board." • sends a letter to a friend in the classroom mailbox using initial sounds and helps the friend read it. • Records on a chart response to Question of the Day, such as "Do you have a pet?"	The teacher: • engages in "thinking out loud" while writing, including why she is writing and how she thinks about what to write. • encourages child to connect meaning to her drawing by asking what she wrote. • includes a variety of writing materials in all areas of the classroom. • provides blank books in the writing center. • models writing as a means of communicating with oneself and others (writing notes to remind herself of things to do). • writes daily news shared by one or two children per day. • engages children in making individual or class-made books in response to literature, mentor texts, field trips, and child's interests. • provides journals, regular opportunities, and access for child to write in his journal. • has an author's chair to

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
			encourage child to "read" from her journal. • encourages child to write as part of authentic play situations, such as creating signs for block play, grocery lists for the dramatic play, recordings of observations in the science center. • sends take-home journal activities such as a birthday journal or a mascot journal.
Child spontaneously "writes" in different situations.	IV.A.2 Child independently writes to communicate his/her ideas for a variety of purposes.	The child: • writes about favorite part of an experience such as visiting the zoo. • labels a picture. • write a personal story such as a trip to the grocery store. • writes notes or cards such as making a get well card for a classmate. • makes labels or signs in the classroom such as for the doctor's office in Dramatic Play.	The teacher: • models writing for different purposes in whole group, small group, or centers. • prompts children to "write that down" when interacting with them during play experiences. • provides book-making materials and different types and sizes of paper and writing utensils in the writing center. • has an author's chair to encourage child to "read" from her journal. • provides writing materials in various locations throughout the room (such as by the door) and in centers.

IV. EMERGENT LITERACY – WRITING DOMAIN

B. Writing as a Process

As young children understand that marks convey meaning (what they think, they can say; and what they say, they can write), it is important to model that writing is not simply about a product. Writing is a thought process that moves from thinking of an idea to a well-developed idea or piece of writing, in which the young author is proud to share. Interacting with children to compose a piece of writing over a series of days using modeled, shared and/or interactive writing exposes children to this process of prewriting/brainstorming, writing/drafting, revising (what the writing sounds like), editing (what the writing looks like), and publishing/sharing in a way that Prekindergarten children understand. Children's ability to engage in each of the stages of the writing process develops over time. During these sessions, the teacher negotiates the language and the process with the children and does most or all of the recording/writing depending on the length of the piece. Taking a piece of writing from the thought stage to the sharing stage also motivates children to write more and helps them see and understand the power of using print to convey meaning.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child verbally shares ideas and/or tells stories associated with marks on paper.	IV.B.1. Child discusses and contributes ideas for drafts composed in whole/small group writing activities.	The child: • observes the teacher thinking out loud about different ideas for the morning message. • interacts with the teacher to help her decide what to write. • shares ideas about what to write after going on a field trip. • shares the pen with the teacher to record familiar words and/or selected words within the draft. • participates in writing a letter to a character in a story and making a suggestion based on what has happened in the story.	The teacher: • models and thinks aloud while brainstorming different topics to write about • involves children in selecting an idea to write about. • interacts and records a class story using questions such as "How should we begin? What should we write next? • provides opportunities for the child to record known words within the draft. • provides opportunities for the child to hear and record sounds of words within the draft (interactive writing). • creates a class newsletter having children dictate stories and ideas, contribute drawings and writings, and make headings or captions. • creates a shared story based on a simple patterned mentor text.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child notices when an adult does not repeat or dictate his spoken language accurately.	IV.B. 2. Child interacts and provides suggestions to revise (add, take out, change order) and edit (conventions) class-made drafts.	The child: • joins teacher and classmates in rereading what has been written. • contributes ideas for adding details or an ending to the piece of writing. • notices when something that has been written doesn't make sense or sound right when read aloud. • notices when the sequence of the writing is not quite right after it is read aloud. • notices and contributes a need for punctuation with teacher guidance.	The teacher: • (Revising) after a read aloud, prompts children to retell the story and records their ideas as they share; rereads with children and guides them to notice the retelling is not in order; later, cuts the retelling apart and engages the children to appropriately sequence their ideas. • (Revising) asks probing questions to prompt children to add significant details to the shared product (e.g., What color was the frog? Let's add that detail." or "How did we get to the pond? Let's change **went** to **rode the bus."** • (Editing) explains the need for punctuation while rereading (such as "I finished this thought. I heard my voice stop. What do I need to put there to show that?"). • writes thank you letters with the child to the appropriate people after field trips or special events and rereads the next day to revise or edit with child.
Child shows written products to others.	IV. B.3 Child shares and celebrates class-made and individual written products	The child: • engages in rereading the class-made writing product with classmates and/or parents and other adults in the school. • asks the adult listener to write a comment on the "Comments Page" in the published book.	The teacher: • creates opportunities for children to reread the finished story. • invites the children to create illustrations to go with the story. • talks with the children about how they want to share their story/piece of writing with others. (Possibilities include a published big book, published chart story, or foot book.)

IV. EMERGENT LITERACY – WRITING DOMAIN

C. Conventions in Writing

Just as children learn to talk by talking, children learn concepts about print through interacting with print. To children, it may appear that writing is simply talk that has been written down. However, there are rules that apply to writing that do not apply to speaking. These specific rules that govern how to record thoughts in writing must be learned so children can become more proficient at conveying their thoughts and actions. A shared and/or interactive writing process can help children better understand this as outlined in Section B.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child records own name in whatever manner she is able.	IV.C.1. Child writes own name (first name or frequent nickname) using legible letters in proper sequence.	The child: • writes his first name. • copies or writes name using sensory materials such as on a "gel" bag, with shaving cream, or in sand. • writes his first name from memory on center waiting lists and art work. • signs name on letters such as a thank you note to a visitor.	The teacher: • provides opportunities for the child to use magnetic or plastic letters or alphabet stamps to create her own name. • provides sign-in-sheets on which child can print his name. • creates graphs using questions or prompts for child to respond to by writing her name under the appropriate heading, such as "Which is your favorite kind of ice cream? Vanilla, chocolate, or strawberry?" "How are you feeling today? Happy, sad." • has child sign her name on art work, graphs, letters, lists, daily news.
Child spontaneously "writes" in various ways.	IV. C. 2 Child moves from scribbles to some letter-sound correspondence using beginning and ending sounds when writing.	The child: • engages in "write the room," copying letters from posters, charts, letter walls, and books found around the room to compose a message. • writes spontaneous letters she knows, such as in her name to compose a message. • writes regularly in journals or blank books.	The teacher: • provides the child word cards with pictures on which he can match letters to sounds. • models formation of letters and provides opportunities for the child to write on blank unlined paper. • has the child write the letters for initial sounds heard in wording written on documents such as charts, lists, and daily news. • talks about the features of letters as she writes them in front of the child. • provides a variety of materials to practice writing, such as sand, shaving cream, and finger paint.

Child uses letter-like forms and actual letters to replace scribbles.	IV.C.3 Child independently uses letters to make words or parts of words.	The child: • writes and shares simple words (m-e and says, "Look, I wrote "me."). • goes to word wall to access a word and records it on his paper. • engages in "write the room," copying letters from items such as posters, charts, letter walls, and books found around the room. • attempts and shares complex words (such as writes btl and says, " I wrote the word beautiful.").	The teacher: • creates an interactive word wall over time as an organizational tool for learning environmental print, children's names, and basic sight words. • supplies the writing center with picture/card words such as name cards, environmental print, and targeted vocabulary across disciplines. • creates a "Write Around the Room" center.
Child may use directionality based on a random starting place.	IV. C 4. Child uses appropriate directionality when writing (top to bottom, left to right).	The child: • writes a list starting at the top of the page. • writes starting on the left side of paper and progresses to the right. • writes more or less in a horizontal line.	The teacher: • models concepts about print and "thinks out loud" as he writes in front of the child (top left starting place, moving left to right, leaving a space between words, return sweep, top to bottom, punctuation mark). • interacts with children during shared writing to determine where to start writing, moving left to right, leaving a space between words, return sweep, and top to bottom. • scaffolds directionality by placing a sticker at the child's starting place.
Child notices print and realizes that print is what is read rather than the picture.	IV.C.5. Child begins to experiment with punctuation when writing.	The child: • notices periods in shared writing and in shared reading. • writes and puts a period at the end of the entire piece. • writes and puts periods after each word or in sporadic places. • notices exclamation points and/or question marks in shared writing or during shared reading.	The teacher: • points out punctuation marks during shared reading. • pauses when writing for or with children and prompts for punctuation. • uses a red marker or crayon during shared/interactive writing to stress that a period means STOP. • prompts children to put punctuation in their writing, such as "Are you finished? What mark should you put at the end?

V. MATHEMATICS DOMAIN

Prekindergarten children's mathematical understandings are built on informal knowledge about quantity that they develop even before any instruction. Young children know immediately if someone gets more cookies than they do. They like telling their age, such as by holding up four fingers to tell an adult how old they are. Children typically use quantity during play to know who scored a goal. Teachers can use this early interest in communicating math-related ideas to foster greater mathematical competencies in the prekindergarten environment. Teachers can plan rich environments and offer sequenced opportunities for prekindergarten children to explore math skills. A suggested sequence for teaching number knowledge would be the following: a) subitizing (small-number recognition), b) counting in a one-to-one fashion, c) determining which set is larger or smaller, d) counting on, e) making close number comparisons, f) number-after equals one more (Frye et.al.,2013).

Effectively supporting early mathematical competencies requires the use of informal representations of math concepts. Concrete representations such as counters, tally marks, fingers, or other concrete objects help children create connections to math. As children gain comfort with concrete representations, they will begin to use pictorial representations which prepares them for abstract representations.

- Concrete representation: the child counts to five to join a set of two objects and a set of three objects
- Pictorial representation: the child uses a sketch to represent the joining of a set of two objects and a set of three objects
- Abstract representation: the child uses math symbols to represent the joining of two sets 2 + 3 = 5.

The core of any early education mathematics curriculum should focus on developing young children's ability to problem solve—developing their capacity to ask thoughtful questions, to recognize problems in their environment, and to use mathematical reasoning with familiar materials in the classroom. Children require repeated opportunities to hear and practice using math vocabulary. Teachers must recognize that early math instruction is not limited to a specific period or time of day in prekindergarten. Instead it is a natural part of any quality prekindergarten learning environment. Teachers enhance children's mathematics learning when they ask questions that provoke clarification, extension, and development of new understanding and vocabulary. For example, as children build with blocks, their teacher can introduce such concepts as higher, lower, in front of, behind, larger, and smaller. During an art project, such as putting buttons on an outline of a person, the teacher might say the person needs five buttons on his shirt. One child may place two buttons and a second child places one more button. The teacher might ask, "How many more buttons do we need on his shirt?" All children should be allowed adequate wait time for responses.

Accumulated research evidence indicates that prekindergarten children are ready to receive instruction that builds on a rich set of informal mathematical skills. Teachers should be sensitive to what is known about individual learners' developmental status and skills. For example, some children may not be ready for oral communication of some mathematical ideas due to delayed speech. Other children may show difficulties with fine motor coordination skills needed to work effectively with manipulatives. Speech-delayed children may be able to learn and express mathematical ideas in ways that reduce demands on oral vocabulary, such as by using concrete materials. These outcomes are provided to help foster a quality mathematics curriculum for prekindergarten children in Texas. The *Texas Prekindergarten Guidelines* are divided into these skill areas: counting, math symbols, adding and taking away, geometry, measurement, and classification and patterns.

ELL children often will acquire math vocabulary in both the native language and in English. For this reason, it may be beneficial for children who are learning English to learn new concepts and vocabulary in their home language, when possible, with math practice conducted in both the children's native language and English. Adequate wait time and accommodation for responses is particularly important for children who are receiving math instruction in a language other than their native language.

V. MATHEMATICS DOMAIN

A. Counting Skills

Prekindergarten-aged children show basic counting readiness and counting by using nonverbal and verbal means.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child identifies objects.	V.A.1. Child knows that objects, or parts of an object, can be counted.	The child: • places objects to be counted in a row and begins counting. • says that the number of polka dots in a picture can be counted.	The teacher: • models objects that can be counted, such as items inside or outside in nature. • uses puppet narrative to explain when items should be counted, such as in *The Three Little Pigs*, saying, "Let's count the pigs." • models when to count to determine if there are enough materials for an activity.
Child recites number words in order up to 10.	V.A.2. Child uses words to rote count from 1 to 30.	The child: • recites number words in order up to 30. • recites number words in order by starting from a number other than "1".	The teacher: • models counting out loud by starting with the number 1. • models counting out loud by starting with a number other than 1. • incorporates counting into everyday activities, such as counting songs and physical activities.
Child counts up to 4 objects with one count per item.	V.A.3. Child counts 1–10 items, with one count per item.	The child: • moves, touches, and/or points to each object while counting, using one to one correspondence (one count per item). • knows that each finger represents one count (such as 2 fingers represent two counts and 3 fingers represent three counts).	The teacher: • provides a variety of objects that can be used for counting. • questions child's understanding of quantity by asking, "How many do you have?" • uses a puppet to model correct counting of individual objects.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child identifies items that can be counted.	V.A.4. Child demonstrates that the order of the counting sequence is always the same, regardless of what is counted.	The child: • demonstrates the counting sequence when counting does not change (When counting a set of 3 bears, counts 1,2,3. . . ; then when counting 3 monkeys, counts 1,2,3. . .). • counts leaves on the ground, number of grapes on a tray, or number of children in library center. • demonstrates counting sequence using puppets. • sings a counting song without support, for example, "1 little, 2 little, 3 little children."	The teacher: • provides a variety of objects (cubes, bears, shapes, etc.) and teaches that the counting sequence remains the same. • uses puppets to demonstrate that counting always proceeds in the same sequence. • provides tools to help child organize number sets such as egg cartons cut to hold a specific number of eggs (a 4-egg carton holding 4 plastic eggs). • models counting songs throughout the day.
Child counts up to 4 items, and demonstrates understanding that the last count indicates how many items were counted.	V.A.5. Child counts up to 10 items and demonstrates that the last count indicates how many items were counted.	The child: • counts 8 plastic cows and says, "I have 8 cows." • counts the number of children in a center and says, "Three of my friends are here." • counts the number of balls on the playground. • counts children eating apples during snack. • counts fingers and says, "I have 5 fingers."	The teacher: • questions children while they count (asks, "Ian, how many do you have now?" or "How many apples are there?"). • uses a puppet to model counting children in a small group. • asks children to repeat and emphasize the last number said when counting. • plays games in which children demonstrate that the last count indicates the number in the game. • provides opportunities for children to count and state the last number.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child begins to understand that items can be counted.	V.A.6. Child demonstrates understanding that when counting, the items can be chosen in any order.	The child: • counts 2–10 objects in different orders (such as left to right, right to left, top to bottom, and bottom to top). • counts objects that were placed in a container and dumped to form a set of randomly placed items on the table. • counts the same pile of items on a table in more than one order.	The teacher: • models counting of objects in different orders by using a puppet (puppet starts counting from right to left then counts left to right, etc.). • encourages children to count objects (such as bears or buttons) in different arrangements (vertically, horizontally, straight). • provides opportunities to play games such as bean bag toss, popcorn, etc. during which tossed objects are to be counted. • models counting strategies (moving the object after it is counted, placing objects in several rows, etc.) to show that items can be counted in different order. • shows children that a collection of objects can be lined up in a row and then counted.
Child demonstrates proper use of the word "first."	V.A.7. Child uses the verbal ordinal terms.	The child: • uses ordinal numbers (first, second, third, fourth, fifth) to count objects. • tells a friend, "You're first in line. I'm second. John is fourth." • identifies in games who was in first place, second place, etc. • uses ordinal numbers to describe the order of what happened in a short story, including the "next" and "last" event in the story. • uses ordinal terms to describe sequence of daily activities (describes daily schedule). • points to card when asked, "Which card is fourth?" "Which card is fifth?"	The teacher: • demonstrates and uses the verbal ordinal terms using varied contexts, such as games, standing in line, etc. • emphasizes who is first place, etc., in a game. • reads stories to children that provide a clear sequence of events (such as *The Three Bears*), using questions to engage the children in summarizing the story ("What happened first?" "What happened second?"). • models opportunities to use ordinal terms throughout the day such as lining up and sitting at the lunch table.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child verbally identifies without counting the number of objects from 1 to 3.	V.A.8. Child verbally identifies, without counting, the number of objects from 1 to 5.	The child: • looks at a set of 1–5 objects and quickly says the number of objects without counting (looks at 3 red cubes on the table and says three without counting). • looks at two separate groups of objects without counting and says which group has more, less, or equal numbers. • uses the words "equal," "more." "less," or "fewer" to describe sets of up to 5 objects. • says the number of dots on one side of a domino when shown quickly. • looks at a page in a story and says the number of dots, animals, or objects on the page. • points to 4 blocks and says, "There are 4 blocks" without counting.	The teacher: • provides games that involve rapid responses to small sets of objects, such as using cards with 1–5 dots to play "Go Fish." • shows, briefly, a set of cubes and has the children say the number represented. • shows, briefly, half of a domino and has the children decide what number is shown. • provides opportunities to compare sets of up to 5 objects. • asks, "Which set has more? Which set has less?" when showing 2 sets of objects. • provides a set of objects and has the children make a set with the same number, or 1 more or 1 less. • provides 2 groups of cubes and asks, "How many cubes are in each group?" Then, "Do these have the same number in each set?"
Child recognizes one-digit numerals 1–4.	V.A.9. Child recognizes one-digit numerals, 0–9.	The child: • says the number name for numerals from 0 to 9 that are written on paper, cards, game pieces. • hop scotches the number of times indicated by a written numeral. • separates cards that have printed numerals from other cards with printed letters. • plays games to find "hidden" numerals in the classroom, such as "I Spy."	The teacher: • tells children the difference between letters and numerals. • provides opportunities to play games that use numeral cards, numbered pieces, or dice with numerals 0–9. • engages children in looking through print items to locate numerals 0–9.

V. MATHEMATICS DOMAIN

B. Adding To/Taking Away Skills

Prekindergarten children use informal and formal strategies to make a collection larger or smaller. This includes teacher showing (modeling) children a mathematical behavior and asking the children to do the same.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands that adding one or more concrete objects to a set will increase the number of objects in the set.	V.B.1. Child uses concrete objects, creates pictorial models and shares a verbal word problem for adding up to 5 objects.	The child: • creates verbal word problems (tells a story) involving adding. • uses a five frame to organize work. • shows 1 finger, then adds 3 more, and adds 1 more to create a set of 5. • shows joining (adds) 1 more cube to a set (up to 5). • plays number games like "Chutes and Ladders." • says how they used adding one more object to solve a problem. • shows joining/adds up to 5 with two and three sets (addends). • counts all objects from the sets that are being joined. (such as having a set of two cubes and three cubes and counting the cubes starting with 1, then, 2, 3, 4, 5 to count all cubes. • counts on from a larger set from the sets that are being joined (such as having a set of two cubes and three cubes and counting the cubes starting with 3, then 4, 5, and counting on).	The teacher: • models word problems such as, "There is 1 bear in a cave. Then 2 more bears walk in the cave. If 1 more bear walks into the cave after them, how many bears are in the cave altogether?" • uses fingers to show children how to put together an addition problem (holds up 2 fingers, adds 1 more finger to show 3,and then adds 1 more finger to show 4). • sets up a row of objects and asks child to devise a story using the objects. • models addition using a set of objects (such as using counters to put together a 2 set addition problem - showing 2 counters and adding 1 more counter to show 3). • extends to the use of joining three sets (such as using 2 fingers, then adding 1 finger, and 2 more fingers to show a set of 5) • plays board games with children during center time. • models and demonstrates the use of a five frame to organize their work. • incorporates number games and finger plays that show addition.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands that taking away one or more objects from a set will decrease the number of objects in the set.	V.B.2. Child uses concrete models or makes a verbal word problem for subtracting 0–5 objects from a set.	The child: • creates verbal word problems involving subtraction. • separates the parts of a number, for example: starts with 4 fingers, then takes away 1 finger to show 3 are left, and then takes away 2 fingers to show 1 is left. • removes objects from a set and says what is left. • says how they used subtraction to take away from a set of objects. • uses a five frame to organize her work.	The teacher: • models simple word problems, such as "If I have 4 cars and I take 2 away, how many will I have left? "And if I take away 1 more car, how many will I have left?" • uses fingers to show children how to take away for a subtraction problem (holds up 3 fingers and then takes away 1 to show 2 are left and then takes away 1 more finger to show 1 is left). • models subtraction using a set of counters (teacher shows 4 counters and takes away 2 to show 2 are left and then takes away 1 more to show 1 is left). • models and demonstrates the use of a five frame to organize work. • incorporates number games and finger plays that show taking away.
Child identifies two groups of objects placed side-by-side as being equal or non-equal.	V.B.3. Child uses informal strategies to separate up to 10 items into equal groups.	The child: • uses informal strategies to produce divvy-up fair-sharing opportunities (takes away 1 item at a time to distribute equally among 2 friends). • trades several small items or sets for a larger one (4 small Tootsie Rolls that appear equal to 1 long Tootsie Roll). • demonstrates sharing up to 10 items with a friend. • uses language associated with fair-sharing/separating into equal amounts: "one for me," "one for you." • acts out literature that shows sharing items. • uses a ten frame to organize work.	The teacher: • demonstrates fair sharing between 2 children by dividing 1 long Tootsie Roll into smaller pieces. • models and observes children using fair share strategy (the child is given a set of objects and is told to share. The child divides the set saying, "one for you, one for me" in order to fair share.). • uses literature that includes stories about children sharing items. • has a child "helper" provide each child in the class a certain number of buttons, such as for a class art project. • encourages children to share items when shown a set of objects. • encourages children to share a set of hidden objects covered with a piece of paper. The child then takes the objects one at a time and shares them with a friend. • demonstrates how to divide into equal parts by taking a container of popcorn and dividing the popcorn into smaller containers.

V. MATHEMATICS DOMAIN

C. Geometry and Spatial Sense Skills

Prekindergarten children recognize, describe, and name attributes of shapes.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child recognizes common shapes.	V.C.1. Child names common shapes.	The child: • identifies shapes using her sense of touch when blindfolded ("This shape has 4 sides. It's a square."). • identifies common shapes, such as circle, square, rectangle, and triangle. • knows the number of sides and corners for shapes, such as square, rectangle, triangle. • describes attributes of shapes using his own language. • uses mathematical vocabulary to describe shape pictures ("This triangle has 3 sides and 3 corners."). • identifies common solids informally as balls, boxes, cans, and cones, then possibly using more formal language, sphere, cubes, cones.	The teacher: • teaches names of common shapes (circle, square, triangle, rectangle) when showing pictures or in the classroom environment. • uses hiding games or scavenger hunts for children to locate shapes. • uses common objects to model shapes, such as paper plates, placemats, clocks, etc., in dramatic play center. • provides opportunities for children to identify shapes both among various shapes on a table, and identified in real life settings (playground, etc.). • encourages children to use the attributes of shapes to describe artwork ("My car has a door with 4 sides.").
Child manipulates shapes using fine and gross motor skills.	V.C.2. Child creates shapes.	The child: • puts together shapes to make real-world objects and other shapes (using a square and a triangle to make a house). • breaks apart shapes to make real-world objects and other shapes (cutting a house picture into a triangle and a square). • creates new shapes by putting together 2 or more shapes to make a new shape (2 triangles together make a square). • uses mathematical vocabulary to describe shapes pictures ("This house has 4 sides and 4 corners."). • puts together or breaks apart solids to make real world objects and other solids (a sphere and a cone make an	The teacher: • provides shapes (manipulatives or construction paper) that children can combine (a triangle and a square make a house). • provides materials to make shapes such as play dough and toothpicks. • models a variety of solids to manipulate (play dough and toothpicks, using the play dough to identify the corners and the toothpicks to identify the sides). • models appropriate language to describe shapes ("This square has 4 sides and 4 corners."). • encourages children to use appropriate mathematical

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
		ice cream cone). • creates shapes by using puzzle pieces.	language to describe shapes. • provides a variety of solids to manipulate. • takes children outside to identify solids in nature (seeds as spheres).
Child begins to use language to describe location of objects.	V.C.3. Child demonstrates use of location words (such as "over," "under," "above," "on," "beside," "next to," "between," "in front of," "near," "far," etc.).	The child: • uses "near" and "far" to describe play on the playground and in the classroom. • follows directions (places a stuffed animal "on," "around," or "under" a chair). • follows directions when playing games like "Follow the Leader." • tells a friend where to find the writing paper in the writing center ("The paper is in front of the markers."). • acts out stories, poems, and nursery rhymes using positional words.	The teacher: • models positional words using a puppet (puppet places a small object on a child's knee). • sings songs about positional words ("Hokey Pokey"). • provides games and/or activities that involve placing objects in certain locations (a chair and a teddy bear). • plays games like "Follow the Leader" with the children. • encourages children to use positional words to describe where things are in the classroom. • reads stories and identifies positions of characters and objects.
Child moves objects during informal play.	V.C.4. Child slides, flips, and turns shapes to demonstrate that the shapes remain the same.	The child: • recognizes that a shape stays the same across various orientations (sliding, flipping or turning a geoblock shape on a table). • slides a triangle from one place to another and says that the triangle is the same ("Look, my triangle is the same here and here.") • turns over a shape (flips) to show that it is the same (turns over a square and says, "This is a still a square."). • turns a triangle geoblock clockwise or counterclockwise and says that the triangle is the same shape.	The teacher: • models sliding, flipping, and rotating to show that the shape remains the same. • engages children to make shapes with hands or legs (2 children sit down and join feet to make a square on the floor). • engages children in games that involve moving shapes (children move their own shape game piece around a game board).

D. Measurement Skills

Prekindergarten children verbally describe or demonstrate attributes of persons or objects, such as length, area, capacity, or weight.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands that lengths of objects can vary and be compared.	V.D.1. Child recognizes and compares heights or lengths of people or objects.	The child: • tells who is taller when comparing the height of 2 or more friends. • places 2–10 objects from shortest to tallest or tallest to shortest on the table. • uses measurement words that can describe height ("taller," "shorter," "longer," "smaller"). • draws 2–10 objects or people of varying heights or lengths (draws her family and has a taller person as Mom and a shorter figure as herself). • uses building blocks to show that 1 long block can be made up of 2 or more smaller blocks.	The teacher: • compares the height of children by measuring each child on a height chart in the classroom. • uses measurement vocabulary for height ("Children, who is taller, Bob or Susie?"). • encourages children to draw objects and people varying in height or length ("Today, boys and girls in the art center, paint a picture of your family."). • models that 1 long block can be made up of 2 or more smaller blocks. • uses non-standard units of measure including everyday objects to measure length (links, paperclips, inch worms, etc.).
Child begins to recognize how much can be placed within an object.	V.D.2. Child recognizes how much can be placed within an object.	The child: • compares the amount of space occupied by objects (places a small block on top of a longer block to determine which occupies more space). • demonstrates capacity using sand and water (at the sand and water table fills containers with sand or water). • compares capacity of containers by size (fills 2 or more different sized containers—cup, quart, etc. —places them from the largest to the smallest or the smallest to the largest). • arranges tea cups in the dramatic play center from smallest to largest or largest to smallest.	The teacher: • asks children to place smaller cups into larger ones. • encourages children to predict how many buckets of water are needed to fill the fish tank. • guides and questions children using sand and water to determine which containers hold more or less ("Which of these holds the most sand?" "Which of these holds the least sand?" "How do you know?" "Show me how you can compare these two containers to see how much they hold?").

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child understands that weights of objects can vary and be compared.	V.D.3. Child informally recognizes and compares weights of objects or people.	The child: • uses a rocker balance or see-saw scale to determine heavy and light objects or objects of equal weight. • uses hands to compare weight of objects (holds pumpkins of various sizes and says which is heavier or lighter). • describes which weighs more using mathematical terms (heavy, light, more than, etc.). • compares weight of self with weight of other objects, such as dolls, stuffed animals, etc. ("I am heavier than my doll.").	The teacher: • models using a balance scale to compare items (places 2 bears in 1 bucket and a handful of cotton balls, asks "Which weighs more?" and records the children's answers.). • provides children objects of differing weights to compare and asks, "Which weighs less?" "Which weighs more?" and records answers on charts. • models using comparison words like heavier, lighter, more than, etc. • encourages children to explain which items are heavier or lighter ("Which is lighter, this feather or your toy car?" "How do you know?").
Child shows awareness of the passage of time.	V.D.4. Child uses language to describe concepts associated with the passing of time.	The child: • describes the daily schedule by telling what happens next in the day. • talks with friends about what happened yesterday, what is happening today, and what might happen tomorrow. • associates time language to describe events of the day ("in the morning," "after snack," "tomorrow," and "yesterday"). • uses the terms "faster and slower" to describe time or motion.	The teacher: • engages children in "daily news" dialogue and records today's, tomorrow's, or yesterday's events. • discusses daily schedule using terms like "before lunch we will. . . "; "after recess today we will have a visitor," etc. • encourages children to make a class book about experiences that happened in the past. • encourages play that demonstrates faster and slower, such as races at recess. • engages children in activities that can be used to directly compare how long events occur ("How long does it take to listen to a song on a CD?" "How long does it take to eat my snack?").

V. MATHEMATICS DOMAIN

E. Classification and Patterns Skills

Prekindergarten children sort and classify objects using one or more attributes. They begin to use attributes of objects to duplicate and create patterns (typically referred to as algebraic thinking such as described in NCTM focal points.) With formal instruction, they will participate in creating and using real/pictorial graphs.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child sorts objects that are the same and different.	V.E.1. Child sorts objects that are the same and different into groups and uses language to describe how the groups are similar and different.	The child: • puts all the cars in a box and all the trucks in a different box and says why. • organizes objects with a common attribute (all the tigers in a pile and all the giraffes in another pile and says why). • organizes blocks in the construction center according to shape and size and explains same and different. • sorts a variety of objects (fruits and vegetables, vehicles, animals, etc.) and tells why. • sorts objects into groups and explains bases of grouping.	The teacher: • models and discusses attributes of objects (size, colors, types, etc.). • asks child to sort a variety of materials for classification (bears, shapes, buttons, vehicles, toys, etc.) and records their classification decisions. • models sorting and labeling groups of materials (sorts and labels the red and blue fruits). • prompts children to describe why materials are sorted into specific groups (“Why did you put all these together?” “Why did you put these here?” “How are these the same or different?”). • asks children to describe why materials are sorted into groups (“Why did you put all these together?” “Why did you put these here?” “How are these the same or different?”). • uses cleanup activities to sort where center items are to be placed.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child recognizes that data can be organized into a graphic representation.	V.E.2. Child collects data and organizes it in a graphic representation.	The child: • places concrete objects or picture representations on a floor graph (uses an apple or orange to show his favorite fruit). • answers question of the week ("Do you have a cat?") and places a check on the yes or no graph. • compares data on graphs or charts (e.g., talks about the class-made graph showing how children get to school—walk, car, bus, vans— "Look Juan walks to school. See his name is here."). • uses mathematical language to describe data (more, less, same, longer, shorter, etc.).	The teacher: • models and discusses the information collected ("Who wore the same shoes to school today?"). • encourages comparing; records information (records child saying, "Our class eats more fruits than vegetables!" etc.). • models and discusses the information collected on charts and graphs ("Which flavor of ice cream do most of you like?"). • models the use of tally marks to record data. • models the creation of a real-object or picture graph.
Child begins to recognize patterns.	V.E.3. Child recognizes and creates patterns.	The child: • identifies repeating patterns in nature. • recognizes and creates patterns in clothing, carpeting, or other patterns in the classroom (polka dots, squares on carpet). • contributes pictures for the pattern class book (cuts out pictures for the pattern class book). • uses different materials (buttons, beads, color cubes) to create pattern necklaces (2 buttons, 2 beads, 2 buttons, 2 beads). • recognizes repeating patterns in a predictable book and says the next line before turning the page. • creates a repeated pattern using different color blocks.	The teacher: • creates pattern sounds and physical movement for the children to imitate (clap, stomp, clap, stomp. . .). • uses beads and/or other objects to demonstrate patterns and asks children to describe the pattern. • models and allows children to create repeated patterns with the children (interlocking cubes make A,B,A,B and AA,BB,AA,BB and ABC,ABC patterns). • reads literature to children that contains obvious repetitive patterns. • asks children to describe a pattern using manipulatives (a tower made of alternating yellow and red cubes can be presented with questions to prompt children to describe the repeating color pattern.)

VI. SCIENCE DOMAIN

Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process."

Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include patterns, cycles, systems, models, and change and constancy.

The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major concepts and vocabulary, in the context of physical, earth, and life sciences. Districts and organizations are encouraged to facilitate inquiry-based instruction for at least 80% of instructional time allotted for science instruction.

In prekindergarten, children observe and describe the natural world using their five senses. Children do science as inquiry in order to develop and enrich their abilities to understand scientific concepts and processes. Children develop vocabulary through their experiences investigating properties of common objects, earth materials, and organisms.

A central theme throughout the study of scientific investigation and reasoning; matter and energy; force, motion, and energy; Earth and space; and organisms and environment is active engagement in asking questions, communicating ideas, and exploring with scientific tools. Scientific investigation and reasoning involves practicing safe procedures, asking questions about the natural world, and seeking answers to those questions through simple observations and descriptive investigations.

Matter is described in terms of its physical properties, including relative size and mass, shape, color, and texture. The importance of light, heat, and sound energy is identified as it relates to the children's everyday life. The location and motion of objects are explored.

Weather is recorded and discussed on a daily basis so s may begin to recognize patterns in the weather. Other patterns are observed in the appearance of objects in the sky.

In life science, children recognize the interdependence of organisms in the natural world. They understand that all organisms have basic needs that can be satisfied through interactions with living and nonliving things. Children will investigate the life cycle of plants and identify likenesses between parents and offspring.

Science content is closely integrated to math and literacy goals but adds the aspect of helping the child learn about the natural world. The prekindergarten child experiences first hand many ideas of life science, physical science, earth science and chemistry best offered in discovery and exploration opportunities. Enriched play environments support an understanding for the scientific process: observe, question, investigate, collect data, and draw conclusions.

VI. SCIENCE DOMAIN

A. Physical Science Skills

Prekindergarten children learn to explore properties of materials, positions, and motion of objects through investigations which allow them to notice the attributes of each of these. These explorations using the senses continue as children use attributes to classify and sort objects, make observations and predictions, problem-solve, compare, and question. Children learn about sources of energy by investigating and discussing light, heat, electricity, and magnetism. This builds early understanding of life science, physical science, earth science and chemistry. Processes such as observing and recording data, posing questions, predicting, investigating and drawing conclusions can provide experiences to support literacy, math, and sciences.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.A.1. Child observes, investigates describes, and discusses properties and characteristics of common objects.	The child: • uses the senses to explore and sensory language to describe properties of natural and human-made materials (wood, cotton, fur, wool, stone, leather, plastic, Styrofoam, paper) to learn their characteristics and capabilities. • examines and describes the texture of materials (salt, flour, and sugar during cooking projects; roller, sponges, and feathers when painting using various tools; surfaces of foil, freezer paper, and sandpaper). • sorts, groups, or classifies objects in meaningful ways based on one or more properties (hard/soft or heavy/light; materials that are made of – wood, plastic, rock). • predicts whether materials will sink or float; investigates the hypothesis and draws conclusions based on prior experiences. • describes and compares the effects magnets have on other objects (attracted to some things but not to others).	The teacher: • models describing a variety of materials using properties to discuss similarities and differences • asks children to describe a variety of natural and human made materials using their sense of sight, touch, taste, smell, sound. • engages children in comparing and exploring how objects or materials respond when they come in contact with other things, such as being placed in water, set on an incline, or dropped on a table. • prompts children to observe and describe changes in nature (ice melting on a windowsill, water freezing in the freezer, steam rising from a kettle). • initiates many first hand experiences such as using garden tools, kitchen utensils, carpentry tools. • provides a variety of materials for making sounds.
VI.A.2. Child observes, investigates describes and discusses position and motion of objects.	The child: • observes, measures, describes, and demonstrates the various ways objects can move (straight, zigzag, round and round, fast, slow). • Investigates, predicts, and states conclusions after moving a variety of toy vehicles on different surfaces.	The teacher: • encourages children to explore motion both inside and outside of the classroom (cars on ramps, wagons to be pushed or pulled). • plays games that use motion and/or sound (“Follow the Leader”).
VI.A.3. Child uses simple measuring devices to learn about objects.	The child: • investigates and discusses the mass of a variety of items (rocks, feathers, metal chain, etc.) using a balance or scale; categorizes weight of objects (heavy/light) and length of objects (long/short). • measures volume of water, sand, etc. using non-standard measures (4 cups to fill 1 small bucket). • measures length using non-standard units. • observes and describes temperature of materials, including outdoor air temperature (colder/warmer/hotter).	The teacher: • models and discusses the mass of a variety of materials using a scale or balance. • models and records findings when making mass comparisons. • provides opportunities and a variety of materials to explore weight, length, and volume. • uses a simple chart to record and compare scientific data such as weather, height, weight, volume, temperature, and amounts.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.A.4. Child observes investigates describes and discusses sources of energy including light, heat, and electricity.	The child: • describes sources of heat and light (sun, wind, water as energy sources) and the safety issues associated with these. • identifies toys that need batteries and equipment in the home that needs electricity to function.	The teacher: • models appropriate vocabulary for sources of energy such as "on/off" for light (electricity). • discusses and models safety issues associated with heat and electricity. • models and discusses how to investigate the children's predictions.

VI. SCIENCE DOMAIN

B. Life Sciences Skills

Prekindergarten children are naturally curious about the characteristics of organisms. Children understand differences in living and non-living things.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.B.1. Child observes, investigates, describes and discusses the characteristics of organisms.	The child: • describes color, size, and shape of organisms. • describes animals' needs for food, water, air, and shelter or plants' needs for water, nutrients, air, and light. • compares differences and similarities of animals (fish live in water, dogs and cats have fur, all birds have feathers). • uses the tools of science (hand lens and measurement tools) to observe and discuss plants and animals.	The teacher: • models and provides opportunities (comparing flowers, insects, and animals) and tools (hand lens) for children to make comparisons of living characteristics and non-living characteristics. • discusses and provides organisms for observations of animal habitats, movements, and characteristics (ants, pill bugs, earthworms, mealworms, and caterpillars).
VI.B.2. Child describes life cycles of organisms.	The child: • plants seeds, then observes, discusses, and records plant growth. • observes, records, and discusses the stage of the life cycle of an organism such as a baby, dog, cat, and chicken. • observes and discusses human growth (growth charts at the beginning of the year and again at the end of year). • matches baby animals to parent animals using correct terms and vocabulary.	The teacher: • models and provides opportunities for children to plan investigations of life cycles (plans a classroom or playground garden for observing seeds growing). • models and provides opportunities to record observation findings when observing life cycles. • provides discussion opportunities to compare life cycles such as insects, pets, and humans. • provides opportunities and discussions for children to observe human growth (children bring in baby pictures and compare what they look like now to the pictures).

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.B.3. Child observes, investigates, describes and discusses the relationship of organisms to their environments.	The child: • describes characteristics and differences between living and non-living. • discusses how animals and humans depend on plants and other organisms such as birds eat seeds, cows eat grass, humans eat vegetables and meat. • observes, discusses, and records living organism (spiders, insects, worms, snails, birds) in their natural environments to learn about their habits. • observes, discusses, and records seasonal changes in the neighborhood trees and organisms (watches for birds in the spring as they collect nesting materials). • discusses how seasons affect daily life (clothes worn or activities played). • describes and explains animal behaviors (a bird building a nest).	The teacher: • models and assists children with creating schedules for the care of live animals/plants (discusses in small groups what you might need to have fish or a rabbit in the classroom). • provides a habitat for children to observe, discuss, and record creatures in their natural environment (fish in an aquarium, a worm or butterfly house indoors, ant farm, terrarium for snails/hermit crab, a bird or butterfly garden outdoors). • provides outdoor experiences for observing, exploring, and discussing animals in their natural habitats (a bird nest in a bush, butterfly garden, a rotting log, or a pond). • initiates many first hand experiences such as seeing popcorn pop, planting seeds, collecting leaves, making ice, and counting seeds from fruits, vegetables, nuts and grains. • uses informational books to help children develop questions about the organisms and the natural environments.

VI. SCIENCE DOMAIN

C. Earth and Space Science Skills

Prekindergarten children are enthusiastic learners about earth and space. They are discovering their place in the world and how to impact their environment with positive actions.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.C.1. Child observes, investigates, describes and discusses earth materials, and their properties and uses.	The child: • observes, discusses, and compares earth materials (rocks, soil, and sand) using hand lenses, sieves, water, and balances. • identifies the importance of soil, sunlight, air, temperature, and water to plant growth. • discusses and explains ways earth materials are used for building houses, road construction, and decorative purposes (the uses of rocks).	The teacher: • engages children in examining, comparing, and discussing rocks, soil, water, and sand using tools such as hand lenses, sieves, and balances. • provides outdoor experiences for children to observe, explore, and discuss how rocks and other natural materials are used by humans such as soil in flower beds, rocks for construction. • assists children in building collections from earth materials.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VI.C.2. Child identifies, observes, and discusses objects in the sky.	The child: • observes and discusses characteristics of clouds and makes representations such as finger painting the clouds in the sky. • asks questions and/or makes comments about the sun, stars, and moon. • investigates what happens to things exposed to the sun (children get warmer; colors are created when a prism hangs in a window).	The teacher: • engages in discussions about observing various objects in the sky (clouds and their shapes, the position of the sun during recess time). • discusses the night sky and compares the objects with the day sky. • shares books with examples of night sky and space. • compares and contrasts what children see in the sky at night and during the day.
VI.C.3. Child observes and describes what happens during changes in the earth and sky.	The child: • observes and describes how different items (rock, metal) respond to the warmth of the sun outside on a sunny day or a cold/cloudy day. • explains what happens after a weather event (erosion after a rain storm, movements of leaves after a wind storm). • observes, records, and predicts daily weather changes (weather charts). • investigates with objects to observe what happens during a windy day (flying a kite). • observes shadows and describes the relationship between the shadow and a light source (sun, flashlight, lamp). • investigates and draws conclusions about shadows. • observes seasonal changes.	The teacher: • discusses weather and changes in the seasons; includes discussions about what to wear when the weather changes (rain, sleet, snow, sun, seasonal changes). • provides opportunities for observations and discussions following a weather event. • engages children in investigating with objects during a windy day (flying a kite). • asks questions to predict what happens when things are exposed to the sun or wind or rain. • provides opportunities and materials to observe and discuss what makes a shadow and why such as inside with a flashlight or outside with the sun.
V1.C.4 Child demonstrates the importance of caring for our environment and our planet.	The child: • discusses “green” practices (water conservation, clean air, recycling, etc.) • engages in conservation or recycling projects (not using as many paper towels, using both sides of the paper). • goes on a “trash hunt” to clean the school yard.	The teacher: • engages in discussions about water conservation during routines such as hand washing, teeth brushing, etc. • discusses the school’s or community’s recycling program and encourages families to practice recycling. • plans participation in service projects related to caring for the natural environment.

VII. SOCIAL STUDIES DOMAIN

Social studies is integral to young children's lives and is naturally engaging in the classroom. Driven by a desire to know and achieve mastery over self, family and their environment, children are eager to gain understanding of the many aspects of their culture and community beginning with their family, then moving into the environmental world. Through social studies, children begin to develop the self-understanding that will serve as a foundation for learning about others and the world. Although all aspects of education have the goal of preparing children to become contributing members of society, social studies is particularly well suited to foster the skills and attitudes necessary for citizenship in a democracy. Skills such as beginning economics, geography awareness, problem-solving, decision-making, and working independently as well as in teams in a classroom, prepare children to become fully functioning members of society.

Prekindergarten children come from a variety of cultural and linguistic settings; therefore, their understanding of the world around them can be unique and very diverse. It is important to realize that children bring different background knowledge to the classroom, and this will undoubtedly influence their understanding of some concepts in the social studies domain. Therefore, it is important to incorporate and honor the child's home, community, and culture in their understanding and world view.

VII. SOCIAL STUDIES DOMAIN

A. People, Past and Present Skills

Prekindergarten children are aware of time and begin to organize their lives around it. Four-year-old children learn to depend on events and routines that occur in a regular and predictable order. They begin to understand past events and how these events relate to their cultural background as well as present and future activities, demonstrating evidence of their growing understanding of time, change, culture, and continuity.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.A.1. Child identifies similarities and differences between himself, classmates and other children inclusive of specific characteristics and cultural influences.	The child: • draws, paints, or colors a body outline of herself and adds colors for clothing, hair, and eyes that match her own. • draws self and classmates and notices differences and similarities between them such as some are taller than others. • shares the understanding that people speak different languages by responding to the teacher while making a graph about differences they have observed ("How many speak Korean?" "How many speak English?" "How many speak Spanish?" "How many speak two languages?"). • identifies similarities among people like herself and classmates as well as among people from other cultures. • respects people from other cultures. • explains and demonstrates family customs and traditions.	The teacher: • incorporates cultural and ethnic activities and materials into the curriculum on an everyday basis through reading aloud or pretend play. • uses photographs pictures, and drawings to discuss how people are alike and different. • provides a culturally sensitive classroom (asks families to list celebrations they observe). • invites families to share family celebrations with the class. • discusses family customs and traditions. • invites families and community volunteers to class to demonstrate and explain customs and traditions. • prepares the environment with materials that reflect the cultures of children in the classroom.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.A.2. Child identifies similarities and differences in characteristics of families.	The child: • describes self in terms of being a member of a family including different ages (baby, child, adult, elderly). • during circle time, shares about her family members.	The teacher: • provides opportunities for play or dress-up like mom, sister, dad, etc. • encourages children to bring photos of their families and discusses with the children how families are alike and different by making a chart. • encourages children's families to visit the classroom and share their customs, music, and traditions.
VII.A.3. Child-connects their life to events, time, and routines.	The child: • identifies common events and routines such as snack time, story time. • categorizes time intervals using words such as yesterday, today, tomorrow, next time. • connects past events to current events such as linking yesterday's activity with what will happen today. • discusses important non-holiday events such as field trips, classroom's daily schedules, moving day, fire drills, and school concerts during circle time. • sequences life events such as by sharing pictures of himself as a baby and then as a small child. • connects life events to stages in her own growth and development.	The teacher: • discusses daily routines and events with children (posting a daily picture schedule). • asks children to describe their day using words like today, tomorrow, or next time. • provides opportunities for children during morning message to link yesterday's activities with what is happening today ("Look, boys and girls, it's cloudy today like yesterday. What do you think the weather will be like today?"). • charts the child's growth from baby to school age. • provides opportunities for children to explore careers and identify what they want to be when they grow up. • shares pictures of herself at different ages.

VII. SOCIAL STUDIES DOMAIN

B. Economic Skills

In prekindergarten, children learn about the world in their community. They explore the roles and relationships of consumers and producers and become aware that people produce services as well as goods. Children learn that their community benefits from many different people working in many different ways.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.B.1. Child demonstrates that all people need food, clothing, and shelter.	The child: • draws or creates different kinds of shelter. • talks and looks at books about different kinds of food, shelter, and clothing. • participates in designing and building a variety of homes and shelters. • sorts and classifies clothes specific to weather and seasons. • prepares food for a family and dresses dolls in the pretend play center.	The teacher: • discusses and questions—"What types of shelters do people live in?" "What does shelter provide to us?" recording answers on chart paper. • shows pictures and discusses foods that originated from different cultures and asks the children if they have eaten these foods. • reads a book during circle time about clothing and discusses why we need clothing. • shares pictures of items that provide safety and care for the family such as car seats, seat belts, and smoke detectors..
VII.B. 2. Child demonstrates understanding of what it means to be a consumer.	The child: • participates in activities using pretend money and trades items such as buying items found in the store/restaurant in the pretend play center. • shares experiences with the other children detailing shopping experiences with his family such as when his family participates in a garage sale either buying or selling.	The teacher: • provides appropriate materials (cash register, receipt pad, plastic food items, debit/credit card, hardware goods, etc.) to create a business • records shopping experiences on chart paper and displays for the children to interact with later ("You had enough money to buy 2 apples, but not 3."). • explains and models other forms of payment such as credit cards, debit cards, and other technology. • uses language such as consumer, producer, borrower, and safety of cards and money. • models language about earning, spending, saving, and borrowing money such as "Be sure to save some money for a rainy day or an emergency."

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.B.3. Child discusses the roles and responsibilities of family, school, and community helpers.	The child: • identifies school helpers (principal/director, secretary, nurse, custodians, etc.) and explains how they help the child or school. • pretends to be different school helpers during play. • identifies community helpers (police officers, firefighters, paramedics, bus drivers, etc.). • pretends to be different community helpers during play. • participates in the creation of class books about school and community helpers. • shares jobs her family members do at home and in the workplace during circle time.	The teacher: • invites school's helpers to come in or takes the class to visit them so the helpers can tell the children about their role in the school. • displays and discusses college symbols such as his or her college diploma or logos. • provides appropriate items for the children to pretend to be school helpers such as broom, mop, phone, note pads, band aids, and cold pack. • invites community helpers to come in or takes the class to visit them so the helpers can tell the children about their role in the community and the training and education needed to do the job. • assists the children in creating class books about school and community helpers. • prepares bulletin boards or displays promoting college awareness and career paths.

VII. SOCIAL STUDIES DOMAIN

C. Geography Skills

Prekindergarten children begin to think about geography using location and direction. Children use direction to locate their relative position in space and to locate their home and school in their community.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.C.1. Child identifies and creates common features in the natural environment.	The child: • identifies common features in the home and school environment (The library has books. The playground has a swing.). • creates simple representations of home, school, or community (drawings or block constructions). • identifies common features of the local landscape (houses, buildings, streets) • brings items representing family heritage from home for show and tell. • uses sand table and water to create models of land forms. • uses small animals and small people toys to explore the scale of land forms at the sand and water table.	The teacher: • discusses common features in home and school environment ("What are things that we have both at home and at school?" The children respond with sinks, carpet, etc.). • questions children's creations of home, school, and community (asks children to describe their block construction of the playground.). • encourages children to build towns using blocks to represent buildings, houses, etc. • discusses the geographic features of common land forms such as mountains, desert, and ocean. • uses sand and water to create hills, rivers, streams, roads or lakes.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.C.2. Child explores geography tools and resources	The child: • shares his country of origin with the class. • builds towns using manipulatives and makes maps and signs of her model towns. • discusses street addresses of his home and neighborhood. • points to a center on a map of the classroom to indicate where she would like to work during center time.	The teacher: • provides maps and globes in the classroom environment or play centers. • uses yarn to connect countries of origin to the school on a map. • uses a school map to locate places.

VII. SOCIAL STUDIES DOMAIN

D. Citizenship Skills

The child begins to understand important customs, symbols, and celebrations that represent American beliefs and principles and contribute to our national identity.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.D.1. Child identifies flags of the United States and Texas.	The child: • identifies (by pointing) the United States flag when asked. • identifies (by pointing) the Texas flag when asked. • compares the similarities between the United States flag and the Texas flag. • discusses the differences between the United States and the Texas flags.	The teacher: • displays and identifies the United States and the Texas flag. • encourages the children to paint/draw the United States flag and the Texas flag on plain paper, helps label with children's help and discusses the features of the flags, labels and displays the flags. • reads aloud appropriate books on flags and asks questions ("Where do you see flags?" "What colors do you see on the flags? "What shapes do you see?"). • encourages visitors to the classroom who know about the flag (such as VFW [Veterans of Foreign Wars],representatives of community organizations) to discuss the importance of the flag and its proper care.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VII.D.2. Child recites the Pledge of Allegiance to the United States flag and the state flag and observes a moment of silence*.	The child: • participates in daily Pledge of Allegiance activities. • discusses why the Pledge of Allegiance is said. • discusses places they have said the pledge outside of school (ball games, assemblies, etc.). • demonstrates respect for classmates and country during the pledge.	The teacher: • models the Pledge of Allegiance with the children, remembering to say the words slowly and clearly. • discusses the meaning of the Pledge of Allegiance with a focus on that the pledge shows love and loyalty to the country. • encourages visitors to the classroom who will point out the importance of the flag such as VFW representatives. • makes a graph of the different places the children have said or heard the pledge recited (classroom, ball games, assemblies, or television events).
VII.D.3. The child engages in voting as a method for group decision-making.	The child: • votes in classrooms decisions (playing inside vs. playing outside, singing "Twinkle, Twinkle Little Star" vs. "Five Little Monkeys"). • reports to the group times their family has participated in voting. • creates voting situations in dramatic play center (asks their friends to vote whether they want to play hospital or restaurant).	The teacher: • models and provides situations for voting (choosing a book for read aloud, where to have playtime, which song for dancing). • sends a letter home to families to discuss their voting participation. Have children report to the class while teacher records on chart paper (Child says," My mom voted for mayor last year. She went to my sister's school to vote."). • reinforces the idea of voting as a way to resolve conflict during center time.

*TEC §25.082. SCHOOL DAY; PLEDGES OF ALLEGIANCE: MINUTE OF SILENCE. (a) A school day shall be at least seven hours each day, including intermissions and recesses. (b) The board of trustees of each school district shall require students, once during each school day at each school in the district, to recite: (1) the pledge of allegiance to the United States flag in accordance with 4 U.S.C. Section 4, and its subsequent amendments; and (2) the pledge of allegiance to the state flag in accordance with Subchapter C, Chapter 3100, Government Code. (c) On written request from a student's parent or guardian, a school district shall excuse the student from reciting a pledge of allegiance under Subsection (b). (d) The board of trustees of each school district shall provide for the observance of one minute of silence at each school in the district following the recitation of the pledges of allegiance to the United States and Texas flags under Subsection (B). During the one-minute period, each student may, as the student chooses, reflect, pray, meditate, or engage in any other silent activity that is not likely to interfere with or distract another student. Each teacher or other school employee in charge of students during that period shall ensure that each of those students remains silent and does not act in a manner that is likely to interfere with or distract another student.

VIII. FINE ARTS DOMAIN

Art can help children learn to observe, organize, and interpret experiences through multiple mediums. They can express themselves through dance, music, dramatic play, painting, sculpture, drawing, and other movement. For prekindergarten children, art begins with exploration, discovering how things feel, look, and sound. Children need to experiment with manipulating and transforming materials and feel free to express ideas and experiences. Teachers can encourage this by providing opportunities for children to engage in the "process" of creating rather than worrying about the "product" that is created. Art can integrate across domains and support many aspects of development. Children can increase vocabulary, develop social emotional skills such as self-expression, and strengthen fine and gross motor skills.

VIII. FINE ARTS DOMAIN

A. Art Skills

Children explore a wide variety of materials and make discoveries about color, shape, and texture through art experiences. They learn to express what they know and begin to recognize how others express themselves through art. They also begin to gain control of fine-motor muscles and practice hand-eye coordination. The majority of art experiences should be model and/or sample free with focus being on the process. Teachers should avoid having a preconceived idea of what the end product should look like and refrain from "fixing" a child's art work with the understanding that there is not a right or wrong way to create the art.

End of Prekindergarten Year Outcomes	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
VIII.A.1. Child uses a variety of art materials and activities for sensory experience and exploration.	The child: • investigates with a variety of materials (crayons, paint, clay, markers). • manipulates modeling clay by rolling, pinching, squeezing, patting, and cutting. • mixes colors to make other colors (red and yellow finger paint to make orange). • uses different sizes of brushes to paint. • selects a variety of materials in the art center for exploration (painting with cotton swabs on paper). • comments on colors, shapes, space, textures, and objects in the environment. • creates artwork inspired by music.	The teacher: • provides art materials that can be easily adapted for independent participation (different sizes of brushes, different colors of paint, markers, modeling clay, cotton swabs, straws, etc.). • rotates materials in the art center on a regular basis. • provides opportunities for exploration of the relationship of space and objects as well as color, balance, texture, and design (opportunities to construct 3-dimensional designs). • calls children's attention to art within the environment (colors of a flower, markings on a butterfly's wing, textures on the leaves of a tree). • provides time during the day for children to independently participate, engage, and experiment using a variety of textures of materials (centers). • scaffolds children's thinking about artistic explorations by asking open-ended questions ("What happened when you mixed red and blue?"). • provides a space in the classroom for children to display their work.

End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
VIII.A.2. Child uses art as a form of creative self-expression and representation.	The child: • talks about what he is going to create ("I'm going to paint a picture of my family."). • describes own work ("This is me riding my bike."). • demonstrates steps of creating own work ("First I rolled the clay into a ball. Then I. . ."). • creates drawings and paintings that gradually become more realistic and detailed. • uses a variety of materials to create art forms. • develops a vocabulary to share opinions about artistic creations and experiences.	The teacher: • provides time in the schedule for children to describe and demonstrate work (show and tell at circle time). • scaffolds children's thinking about artistic creations by asking open-ended questions ("Tell me about your painting."). • exposes children to different examples of art (collages, paintings, mosaics, sculptures, posters). • allows children to use a variety of materials for individual creative pieces of art. • incorporates art vocabulary (forms, meanings, colors, textures, and shapes).
VIII.A.3. Child demonstrates interest in and shows appreciation for the creative work of others.	The child: • comments on the artwork of a classmate. • responds to comments made by classmates about a picture ("Yes, I drew a green house because that is my favorite color."). • recognizes books illustrated by the same illustrator. • comments on pictures in books. • explores art from a variety of cultures.	The teacher: • displays many examples of children's artwork. • displays art, sculptures, and artifacts that are representative of various cultures. • provides books and photographs that depict a variety of art media (paints, pencils, paper) and artists' styles. • takes children to art museums or invites local artists to the classroom. • reads aloud and calls attention to the illustrations in books.

VIII. FINE ARTS DOMAIN

B. Music Skills

Four-year- old children express themselves through singing and movement and by playing simple instruments. Like art, music is a form of experiencing, learning, and communicating with others. Children learn to experiment with music concepts, volume, tempo, and sound. They begin to appreciate different types of music.

End of Prekindergarten Year Outcomes	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
VIII.B.1. Child participates in classroom music activities including singing, playing musical instruments, and moving to rhythms.	The child: • sings along with familiar songs during circle time ("Old McDonald Had a Farm"). • sings songs about concepts learned in the curriculum (singing about planting seeds when the theme is gardening, transportation songs, etc.). • joins in with familiar finger plays ("Eency Weency Spider"). • plays the classroom musical instruments (uses instruments to help retell a story, uses instruments to represent a character in a story). • chooses to listen to music during centers. • makes up and sings songs during the day. • creates own musical instruments using boxes, strings, rubber bands, and cans (props can be added to dramatic play or in other centers). • sings/plays songs from different cultures. • moves in rhythm to simple tunes and musical patterns.	The teacher: • provides repetition of songs and finger plays to promote familiarity. • uses music or finger plays as a signal for transition to a new activity. • provides opportunities for children to explore musical instruments (drums, cymbals, triangles, maracas, etc.). • provides opportunities for children to experience different styles of music (jazz, rock, classical, and songs from other cultures and in other languages). • provides materials for children to create own instruments (boxes, strings, rubber bands, and cans). • provides opportunities for free movement to music. • uses small and large movements with songs in a variety of settings such as circle time and outside activities. • serves as a role-model for live music-making.
VIII.B.2. Child responds to different musical styles through movement and play.	The child: • uses props (scarves, streamers) to create movements to music. • follows the beat using body and musical instruments (walks or jumps to the beat). • distinguishes between different types of music (loud/soft, fast/slow, happy/sad, etc.). • starts and stops playing of musical instruments when the music starts or stops. • describes and expresses moods with a variety of music. • talks about different styles of music.	The teacher: • exposes children to different styles and tempos of music through games and activities. • provides various props (scarves, streamers) and opportunities for musical exploration. • exposes children to musical experiences through concerts. • reads aloud books about music. • provides musical opportunities with a variety of moods for expression.

VIII. FINE ARTS DOMAIN

C. Dramatic Expression Skills

Creative drama in prekindergarten involves young children in expressive and spontaneous productions. Children demonstrate their unique interpretation of music, songs, and stories through movement and dramatic experiences. These experiences contribute to children's ability to communicate more effectively and engage in cooperative activity with others.

End of Prekindergarten Year Outcomes	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
VIII.C.1. Child creates or recreates stories, moods, or experiences through dramatic representations.	The child: • dramatizes a story read aloud (a familiar fairy tale). • engages in dramatic play with classmates (plays the part of different characters in a familiar book). • creates props to dramatize a story read aloud or represent mood. • recreates events from his own life. • uses movements to pantomime movements of various animals (moves like an elephant, sneaks like a mouse) and to develop motor skills. • uses voice to represent sound to act out characters in a story (high and low pitches).	The teacher: • rereads books to promote familiarity. • provides props (cooking utensils such as tortilla presses, ladles, woks, steamers, chopsticks, baskets, etc.) for dramatic expression that reflect diversity in gender, culture, and occupations. • provides opportunities for children to act out familiar stories. • provides a variety of materials for children to create own props to recreate stories or dramatic representations. • participates in dramatic play with children. • exposes children to dramatic presentations by community theater groups or student groups.

IX. PHYSICAL DEVELOPMENT DOMAIN

Research demonstrates that children's knowledge is developed from their own actions. Thus, learning relates directly to mobility and motor skills. The motor developmental domain influences many aspects of children's success in cognitive, perceptual, and social development. Teachers should provide activities that promote the development of gross and fine motor skills. The development of physical milestones help children to gain and maintain self-confidence and stability and contribute to such activities as holding a pencil or crayon and writing. Running, hopping, starting and stopping, changing direction, and catching and throwing are the prerequisites for the games of middle childhood that further advance children's cognitive and social development. Interacting with children not only sets a good example of physical activity, but also results in children's showing signs of improved mental health and emotional status and closer teacher-child relationships. Activities to develop physical skill and refine motor development will be included in early childhood education and developmentally appropriate environments through games and group play. Rhythmic, stability, loco-motor, and manipulative skills are important and can be addressed in a number of ways. Most importantly, though, these activities should make a meaningful link with social, emotional, and cognitive development. Physical activity not only promotes cognition but also can enhance children's social skills and self-esteem through group participation. Free, unstructured outdoor play as a means of developing gross motor, fine motor, and sensory skills is valuable to children's overall well-being.

IX. PHYSICAL DEVELOPMENT DOMAIN

A. Gross Motor Development Skills

Children explore their physical space and understand how their bodies function in space through active movement experiences. Large-motor skills are developed first, followed by stability (turning, twisting, balancing, dodging) and manipulative (throwing, catching, kicking, striking) motor skills. Gross motor development requires thought and deliberate movement. Four-year-old children develop greater control of gross-motor manipulative movements that involve giving force to objects and receiving force from objects.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child has mastered basic skills of running, jumping, climbing, and pedaling.	IX.A.1. Child demonstrates coordination and balance in isolation (may not yet coordinate consistently with a partner).	The child: • maintains balance while walking on a balance beam or standing on one foot. • hops on one foot, walks, jogs, jumps, and gallops. • carries a bowl or plate of objects from one spot to another. • coordinates leg and body movements to sustain swinging on a swing. • moves and stops with control over speed and direction (moves back and forth, side to side).	The teacher: • provides time and space for physical activities. • modifies activities and equipment according to the needs of individual children. • provides activities that cross the midline of the body (hugging oneself by crossing arms, reaching for objects with only one hand at a time, etc.). • participates with children in movement games. • plays games such as "Red Light, Green Light."

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child engages in movement sequences with adult prompts.	IX.A.2. Child coordinates sequence of movements to perform tasks.	The child: • moves within a space of defined boundaries, changing body configuration to accommodate the space (moving through an obstacle course). • moves body into position to catch or kick a ball. • uses axial movements such as reaching, twisting, turning, and bending. • participates in group games involving movement ("Hokey, Pokey"). • moves from one space to another in a variety of ways (running, jumping, hopping, skipping). • moves in rhythm to simple tunes and music patterns.	The teacher: • provides a variety of movement activities. • provides time and space for children to participate in gross motor movements. • modifies activities and equipment to meet the needs of individual children. • plays games that include motor activities ("Follow the Leader," "Freeze Tag"). • provides outdoor equipment (different size balls for catching, throwing, and kicking) to stimulate a variety of skills. • provides equipment (bean bags to toss into a basket, obstacle courses using tunnels, large cardboard boxes, etc.) for indoor gross motor activities. • uses games and songs that involve movement and exercise • includes daily warm-up exercises such as stretching, jumping jacks, running in place during the day. • participates in games with children.

IX. PHYSICAL DEVELOPMENT DOMAIN

B. Fine–Motor Development Skills

Fine-motor manipulative movements involve object-handling activities that emphasize motor control, precision, and accuracy of movement. Cutting with scissors, manipulating modeling dough, and drawing are the foundational skills needed for the demands of handwriting and other small-motor skills in later school years. Fine motor activities can be easily integrated into each learning center and help to strengthen the small muscles of hands in preparation for writing.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
Child experiments with a variety of fine-motor tasks but may lack strength and control.	IX.B.1. Child shows control of tasks that require small-muscle strength and control.	The child: • manipulates and shapes modeling clay. • uses pincer control (grasps small objects between thumb and index finger) to manipulate tools (tweezers, eyedroppers) and manipulatives (linking cubes). • uses hands and fingers to manipulate various classroom materials (placing caps on and off markers, using various size brushes to paint at the easel). • uses thumb and fingers to tear paper. • holds drawing and writing utensils in a more conventional grasp (with fingers instead of fist).	The teacher: • provides a variety of tools in various centers for children to use (dramatic play center—eggbeaters, tongs; manipulative center—linking cubes; science center—tongs, eyedroppers). • plans activities that build small muscle strength and control (torn paper collages, cookie cutters in modeling clay, making decorative jewelry, painting).
Child shows emerging proficiency on tasks requiring eye-hand coordination (draws pictures recognizable to child but not others, cuts with scissors but may not cut all the way across a page).	IX.B.2. Child shows increasing control of tasks that require eye-hand coordination.	The child: • puts together puzzles with interlocking pieces. • accomplishes self-help tasks (buttoning, zipping, snapping). • strings small beads. • completes lacing cards. • draws recognizable pictures and shapes.	The teacher: • provides materials in the classroom that encourage children to practice eye-hand coordination (dramatic play center—dressing dolls; manipulative center—variety of beads and laces; block center—variety of block shapes; art center—scissors). • plans activities that build eye-hand coordination (string macaroni for a necklace, use glue sticks for collages). • provides time for practice of fine motor skills (centers). • encourages children to practice self-help skills such as buttoning and zipping own clothing.

IX. PHYSICAL DEVELOPMENT DOMAIN

C. Personal Safety and Health Skills

Prekindergarten children demonstrate an understanding of health and safety issues related to their daily routines and activities. Children learn to make healthy choices in nutrition and understand the importance of well-being through exercise and rest.

By around 48 Months of Age	End of Prekindergarten Year Outcomes	Examples of Child Behaviors	Examples of Instructional Strategies
	IX.C.1. Child practices good habits of personal safety.	The child: • follows safety procedures while using common tools and materials (glue, scissors, rulers, pencils, hammers, wood, safety goggles). • dramatizes/demonstrates an understanding of fire safety and shelter in place procedures (stop, drop, roll; walking to an exit during fire drills). • describes pet safety and care.	The teacher: • discusses and models safety procedures in the classroom and during outdoor time. • engages children in dramatizing safety procedures (practices fire and emergency drills, practices holding scissors correctly, shelter in place). • discusses pet ownership and safety (whenever possible provide a classroom pet for children to help with caretaking responsibilities).
	IX.C.2. Child practices good habits of personal health and hygiene.	The child: • coughs and sneezes into his elbows (does not cover his mouth with his hands). • washes her hands after using the toilet and before snack and lunch. • identifies selected body parts such as head, shoulders, arms, hands, knees, legs, toes, and feet.	The teacher: • discusses good habits of personal health. • models good habits of personal health. • sings songs like Head Shoulders Knees and Toes or Hokey Pokey.
	IX.C.3. Child identifies good habits of nutrition and exercise.	The child: • identifies and discusses nutritious healthy snacks. • participates in preparing healthy nutritious snacks. • discusses the fact that some substances are not good for the body. • demonstrates an understanding that foods can be grouped as healthy or unhealthy. • demonstrates and discusses the need for exercise and rest to stay healthy.	The teacher: • engages children in creating charts, class-made books, and collages of healthy and not so healthy foods. • models and provides healthy snacks and cooking experiences. • engages children in active play, games, and exercise.

X. TECHNOLOGY APPLICATIONS DOMAIN

Young children have much to gain from the use of technology. In prekindergarten, they expand their ability to acquire information, solve problems, and communicate with others. Regular access and exposure to computers and related technology can enhance this learning. Children use engaging, age-appropriate, and challenging learning applications, programs, and websites to extend their knowledge and to enrich their learning of curriculum content and concepts. These technologies serve as important learning tools and are integrated throughout the instructional program. Providing access to a variety of technologies is critical in the development of 21st century skills that young children need to learn and grow.

X. TECHNOLOGY APPLICATIONS DOMAIN

Technology and Devices Skills

Children learn how technology can enhance our lives. Technology includes computers, voice/sound recorders, televisions, digital cameras, personal digital assistants, MP3 devices, iPods, iPads, tablets, laptops, interactive boards, document readers, smart phones, and digital projectors. Surrounded by technology, children can benefit from becoming aware of and interacting with voice/sound recorders and other technology that may be available. They develop techniques for handling and controlling various devices, becoming increasingly confident and independent users of developmentally appropriate interactive media.

End of Prekindergarten Year Outcomes	**Examples of Child Behaviors**	**Examples of Instructional Strategies**
X.A.1. Child opens and navigates through digital learning applications and programs.	The child: • follows basic oral or visual cues for navigating through learning applications and programs successfully. • listens to and interacts with storybooks and information texts (multimedia encyclopedia) in electronic forms.	The teacher: • provides time and technology for children to use. • models use of digital tools used to work with learning applications and programs using basic oral or visual cues. • provides a variety of opportunities to enhance learning experiences through the use of digital learning applications and programs.
X.A.2. Child uses, operates, and names a variety of digital tools.	The child: • navigates through digital learning applications and programs. • uses terminology to describe work on digital devices. • includes gestures associated with touch screens (such as flick, zoom, pan, swipe, and rotate).	The teacher: • provides instruction and practice time to enable the child to master this skill using the appropriate terminology and vocabulary.

X.A.3. Child uses digital learning applications and programs-to create digital products and express own ideas.	The child: • creates writings and drawings using digital tools. • uses a variety of digital tools with audio, video, and graphics to create or communicate ideas.	The teacher: • models and discusses how to use digital learning applications and programs. • provides time for children to interact with different digital learning applications and programs. • integrates the use of technology into learning activities in meaningful ways.
X.A.4. Child uses technology to access appropriate information.	The child: • learns new information through interaction with technology.	The teacher: • models and discusses when and how to obtain information from digital resources.
X.A.5. Child practices safe behavior while using digital tools and resources.	The child: • follows procedures set by the teacher when using technology.	The teacher: • creates and models procedures for using digital learning applications and programs. • creates a safe virtual environment for children to navigate through (such as preselecting applications children can access or using monitoring programs) digital learning applications and programs.

Appendices

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Research References

Language, Emergent Literacy Reading and Writing, English Language Learners (ELL)

Adam, M.J. 1990. *Beginning to Read.* Cambridge, MA: MIT Press.

Adams, M.J. 1990. *Learning to Read: Thinking and Learning about Print.* Cambridge, MA: MIT Press.

Alexander, J.E., and R.C. Filler. 1976. *Attitudes and Reading.* Newark, DE: International Reading Association.

Anderson, R.C. 1982. "Allocation of Attention during Reading," *Discourse Processing.* Edited by A. Falmmer and W. Kintsch. New York: North-Holland.

Anthony, J. L., and others. 2002. "Structure of Preschool Phonological Sensitivity: Overlapping Sensitivity to Rhyme, Words, Syllables, and Phonemes," *Journal of Experimental Child Psychology,* Vol. 82, 65-92.

Anthony, J.L., C.J. Lonigan, and S.R. Burgess. 2003. "Phonological Sensitivity: A Quasi-Parallel Progression of Word Structure Units and Cognitive Operations," *Reading Research Quarterly,* Vol. 38, 470-87.

Arnold, D.S., and G.J. Whitehurst. 1994. "Accelerating Language Development through Picture Book Reading: A Summary of Dialogic Reading and Its Effects," *Bridges to Literacy: Approaches to Supporting Child and Family Literacy.* Edited by D. K. Dickinson, Cambridge, MA: Blackwell.

August, D., and others. 2005. "The Critical Role of Vocabulary Development for English Language Learners," *Learning Disabilities Research and Practice,* Vol. 20, No. 1, 50-57.

Baddeley, A. 1986. *Working Memory.* New York: Oxford University Press.

Badian, N.A. 1982. "The Prediction of Good and Poor Reading before Kindergarten Entry: A Four-Year Follow-Up," *The Journal of Special Education,* Vol. 16, 309-18.

Baker, L., and A. Wigfield. 1999. "Dimensions for Children's Motivation for Reading and Their Relationships to Reading Activity and Reading Achievement," *Reading Research Quarterly,* Vol. 34, No. 4, 452-77.

Beck, I. and C. Juel. 1999. "The Role of Decoding in Learning to Read," *Reading Research Anthology: The Why of Reading Instruction.* Compiled by the Consortium on Reading Excellence (CORE). Novato, CA: Arena Press.

Bialystok, E. 2001. *Bilingualism in Development: Language, Literacy, and Cognition.* Cambridge, UK: Cambridge University Press.

Biemiller, A. 1999. *Language and Reading Success.* Cambridge, MA: Brookline Books.

Biemiller, A. 2003. "Using Stories to Promote Vocabulary." Paper presented at the International Reading Association Symposium, Orlando, FL.

Blachowicz, Camilee L.Z.; Peter J.L. Fisher; and Susan Watts-Taffe. 2006. "Vocabulary: Questions from the Classroom," *Reading Quarterly.* Vol. 41, No.4, 524-535.

Bohannon, J. N., and J.D. Bonvillian. 2001. “Theoretical Approaches to Language Acquisition,” *The Development of Language* (Fifth edition). Edited by J. B. Gleason. Boston: Allyn and Bacon.

Bradley, L., and P. Bryant. 1985. *Rhyme and Reason in Reading and Spelling.* Ann Arbor, MI: University of Michigan Press.

Bryant, P.E., and others. 1990. “Rhyme and Alliteration, Phoneme Detection, and Learning to Read,” *Developmental Psychology,* Vol. 26, 429-38.

Burgess, S.R., and C.J. Lonigan. 1998. “Bidirectional Relations of Phonological Sensitivity and Prereading Abilities: Evidence from a Preschool Sample,” *Journal of Experimental Child Psychology,* Vol. 70, 117-41.

Burns, M.S.; P. Griffin; and C.E. Snow. 1999. *Starting Out Right.* Washington, DC: National Academies Press.

Byrne, B., and R.F. Fielding-Barnsley. 1993. “Evaluation of a Program to Teach Phonemic Awareness to Young Children: A One-Year Follow-up,” *Journal of Educational Psychology,* Vol. 87 (1993), 488-503.

Calhoun, Emily F. 1999. *Teaching Beginning Reading and Writing with the Picture Word Inductive Model*. Association for Supervision and Curriculum Development.

Cárdenas-Hagan, E.; C.D. Carlson; and E.D. Pollard-Durodola. 2007. “The Cross-Linguistic Transfer of Early Literacy Skills: The Role of Initial L1 and L2 Skills and Language of Instruction,” *Language, Speech and Hearing Services in Schools,* Vol. 38, No. 3, 249-59.

Cazden, C.B. 1986. “Classroom Discourse,” *Handbook of Research on Teaching* (Third edition). Edited by M.C. Wittrock. New York: Macmillan.

Chall, J.S. 1967. *Learning to Read: The Great Debate.* New York: McGraw-Hill.

Chang, F; and others. 2007. “Spanish Speaking Children’s Social and Language Development in Pre-Kindergarten Classrooms,” *Journal of Early Education and Development,* Vol. 18, No. 2, 243-69.

Chaney, C. 1992. “Language Development, Metalinguistic Skills, and Print Awareness in Three-Year-Old Children,” *Applied Psycholinguistics,* Vol. 12, 485-514.

Cisero, C.A., and J.M Royer. 1995. “The Development of Cross-Language Transfer of Phonological Awareness,” *Contemporary Educational Psychology,* Vol. 20, No. 3, 275-303.

Clay, M.M. 1997. “Exploring with a Pencil,” *Theory into Practice,* Vol. 16, No. 5 (December, 1997), 334-41.

Clay, M.M. 1979. *Reading: The Patterning of Complex Behavior.* Auckland, NZ: Heinemann.

Clay, M.M. 1985. *The Early Detection of Reading Difficulties* (Third edition). Portsmouth, NH: Heinemann.

Clay, M.M. 1993. *Reading Recovery: A Guidebook for Teachers in Training.* Portsmouth, NH: Heinemann.

Clay, M.M. 2002. *An Observation Survey of Early Literacy Achievement* (Second edition). Portsmouth, NH: Heinemann.

Committee on the Prevention of Reading Difficulties in Young Children, Commission on Behavioral and Social Sciences and Education, National Research Council. 1998. *Preventing Reading Difficulties in Young Children,* Edited by C.E. Snow; M.S. Burns; and P. Griffin. Washington, DC: National Academy Press.

Developing Literacy in Second-Language Learners: Report of the National Literacy panel on Language-Minority Children and Youth, 2006. Edited by D. August and T. Shanahan. Washington, DC: Center for Applied Linguistics.

Durgunoglu, A.Y., and B. Oney. April 19-20, 2000. "Literacy Development in Two Languages: Cognitive and Sociocultural Dimensions of Cross-Language Transfer," *Research Symposium on High Standards in Reading for Students from Diverse Language Groups: Research, Practice, and Policy*, Washington, DC: U.S. Department of Education, Office of Bilingual Education and Minority Language Affairs.

Dickinson, D.K.; L. Anastasopoulos; A. McCabe; E.S. Peisner-Feinberg; and M.D. Poe. 2003. "The Comprehensive Language Approach to Early Literacy: The Interrelationships among Vocabulary, Phonological Sensitivity, and Print Knowledge among Preschool-Aged Children," *Journal of Educational Psychology,* Vol. 95, No. 3, 465-481.

Dickinson, D.K.; W. Hao; and Z. He. 1995. "Pedagogical and Classroom Factors Related to How Teachers Read to Three- and Four-Year-Old Children," *NRC Yearbook.* Edited by D.J. Leu. Chicago: National Research Council.

Dickinson, D.K., and C.E. Snow. 1987. "Interrelationships among Prereading and Oral Language Skills in Kindergartners from Two Social Classes," *Early Childhood Research Quarterly,* Vol. 2, 1-25.

The Early Childhood Technical Assistance Center Accessed December 21, 2015. Understanding the three childhood outcomes,
http://ectacenter.org/eco/pages/training_resources.asp#COSFTopics

Ehrman, M.E.; B.L. Leaver; and R.L. Oxford. 2003. "A Brief Overview of Individual Differences in Second Language Learning," *System,* Vol. 31, No. 3, 313-30.

Elley, W.B. 1989. "Vocabulary Acquisition from Listening to Stories," *Reading Quarterly,* Vol.24, 174-86.

Ervin-Tripp, S. 1974. "Is Second Language Learning Like the First?" *TESOL Quarterly,* Vol. 8, No. 2, 111-28.

Freeman, S., and D. Freeman. 2006. *Teaching Reading and Writing in Spanish and English in Bilingual and Dual Language Classrooms.* (Second edition), Heinemann: Portsmouth: NH.

Genishi, C.; D. Yung-Chan; and S. Stires. 2000. "Talking Their Way into Print: English Language Learners in a Prekindergarten Classroom," *Beginning Reading and Writing.* Edited by D.S. Strickland and L.M. Morrow. New York: Teachers College Press.

Halliday, M.A.K., 2006. *The Language of Early Childhood.* Edited by J.J. Webster. New York: Continuum International Publishing Group.

Handbook for Prekindergarten Educators: Improving Early Literacy for Preschool Children. LBJ School of Public Affairs Policy Research Project on Early Childhood Education in Texas.

Indrisano, Roselmina; and J.S. Chall. 1995. "Literacy Development," *Journal of Education,* Vol. 177, No.1, 63-81.

How People Learn: Brain, Mind, Experience, and School. 2000. Edited J. Bransford; A. Brown; and R.R. Cocking. Committee on Developments in the Science of Learning, National Research Council. Washington, DC: National Academic Press.

International Reading Association and the National Association for the Education of Young Children, Joint Position Paper, 1998.

International Reading Association and the National Association for the Education of Young Children. 1998. "Learning to Read and Write: Developmentally Appropriate Practice for Young Children," *Young Children,* Vol. 53, No.4, 30-46.

Justice, L.M.; R.P. Bowles; and L.E. Skibbe. July 2006. "Measuring Preschool Attainment of Print-Concept Knowledge: A Study of Typical and At-Risk 3- to 5-Year-Old Children Using Item Response Theory," *Language, Speech, and Hearing Services in Schools,* Vol. 37, 224-235.

Justice, L.M. and H.K Ezell. 2002. "Use of Storybook Reading to Increase Print Awareness in At-Risk Children," *American Journal of Speech-Language Pathology,* Vol. 11, 17-29.

Justice, L. M; J. Meier; and S. Walpole. 2005. "Learning New Words from Storybooks: Findings from an Intervention with At-Risk Kindergarteners," *Language, Speech, and Hearing Services in Schools,* Vol. 36, 17-32.

Kress, G.N. 1994. *Learning to Write.* New York: Routledge.

Landry, S. 2005. *Effective Early Childhood Programs: Turning Knowledge into Action.* Houston: Rice University Press

Landry, S. 2006. "The Influence of Parenting on Emerging Literacy Skills," *Handbook of Research and Early Literacy Development.* Edited by D.K. Dickinson and S.B. Neuman. New York: Gilford Press.

Landry, S. H., and others. 1997. "Predicting Cognitive-Language and Social Growth Curves from Early Maternal Behaviors in Children at Varying Degrees of Biological Risk," *Developmental Psychology,* Vol. 33, 1040-53.

Liberman, I.Y., and others. 1974. "Explicit Syllable and Phoneme Segmentation in the Young Child, "*Journal of Experimental Child Psychology,* Vol. 18, 201-12.

Lonigan, C. J. 1994. "Reading to Preschoolers Exposed: Is the Emperor Really Naked?" *Developmental Review,* Vol. 14, 303-23.

Lonigan, C. J. 2004. "Family Literacy and Emergent Literacy Programs, "*Handbook on Family Literacy: Research and Services.* Edited by B. Wasik. Hillsdale, NJ: Erlbaum Associates.

Lonigan, C.J.; S.R. Burgess; and J.L. Anthony, 2000. "Development of Emergent Literacy and Early Reading Skills in Preschool Children: Evidence from a Latent Variable Longitudinal Study," *Developmental Psychology,* Vol. 36, 596-613.

McGee, L.M.; R.G. Lomax; and M.H. Head. 1988. "Young Children's Written Language Knowledge: What Environmental and Functional Print Reveals," *Journal of Reading Behavior,* Vol. 20, 99-118.

National Research Council. 1998. *Starting Out Right.* Washington, DC: National Academy Press.

Neuman, S.B. and K. Roskos. 1993. *Language and Literacy Learning in the Early Years.* Fort Worth, TX: Harcourt Brace.

Neuman, S.B. and K. Roskos. 1990. "Play, Print, and Purpose: Enhancing Play Environments for Literacy Development," *The Reading Teacher,* Vol. 44, 214-221.

Peña, Elizabeth D. 2007. "Lost in Translation: Methodological Considerations in Cross-Cultural Research," *Child Development,* Vol. 78, No.4, 1255-1264.

Prekindergarten Education: Developmental Milestones. Clayton County Schools. (2008). http://www.clayton.k12.ga.us/departments/instruction/prek/developmentalmilestones.asp (accessed April 2008).

Preventing Reading Difficulties in Young Children, 1998. Edited by C.E. Snow; M.S. Burns; and P. Griffin. Washington, DC: National Academies Press.

Report of the National Reading Panel: Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading Instruction. 2000. NIH Publication No. 00-4769. Washington, DC: National Institute of Child Health and Human Development.

Roskos, Kathleen, C.Ergul, T.Bryan, K.Burstein, J. Christie, and M. Han. 2003. "Who's Learning What Words and How Fast: Preschoolers' Vocabulary Growth in an Early Literacy Program," Early Reading First grant research findings.

Senechal, M. 1997. "The Differential Effect of Storybook Reading on Preschooler' Acquisition of Expressive and Receptive Vocabulary," *Child Language,* Vol. 24, 123-138.

Snow, C.E. 1986. "Conversations with Children," *Language Acquisition: Studies in First Language Development,* edited by P. Fletcher and M. Garmen. NY: Cambridge University Press, 69-89.

Snow, C.E. 1983. "Literacy and Language: Relationships during the Preschool Years," *Harvard Educational Review,* Vol. 53, 165-89.

Stahl, S.A. 1999. *Vocabulary Development.* Cambridge, MA: Brookline Press.

Sulzby, E. 1986. "Writing and Reading: Signs of Oral and Written Language Organization in the Young Child," in *Emergent Literacy: Reading and Writing.* Edited by W.H. Teale and E. Sulzby. Norwood, NJ: Ablex Publishing.

Three to Five Years – Sequences of Developmental Growth. Indiana Foundations for Young Children: 238-241.

Tabors, P.O. 1997. *One Child, Two Languages: A Guide for Preschool Educators of Children Learning English as a Second Language.* Baltimore: Brookes Publishing Company.

Tabors, P.O. 2008. *One Child, Two Languages: A Guide for Preschool Educators of Children Learning English as a Second Language, Second Edition.* Baltimore: Brookes Publishing Company.

Texas Education Agency. Accessed May 02, 2008. *LEER MAS I*.

Texas Education Agency. Accessed May 02, 2008. *LEER MAS II*.

Texas Education Agency, Accessed May 02, 2008. *Implementing the Prekindergarten Curriculum Guidelines for Language and Early Literacy.*

Texas Family Literacy Resource Center. Accessed May 02, 2008.

Whitehurst, G. J. 1997. "Language Learning in Children Reared in Poverty," *Research on Communication and Language Disorders: Contribution to Theories of Language Development.* Edited by L. B. Adamson and M.A. Romski. Baltimore: Brookes Publishing.

Whitehurst, G.J., J.N. Epstein, A.L. Angell, A.C. Payne, D.A. Crone, and J.E. Fischel. 1994. "Outcomes of an Emergent Literacy Intervention in Head Start," *Journal of Educational Psychology,* Vol. 86, 542-555.

Whitehurst, G.J., and others. 1988. “Accelerating Language Development through Picture Book Reading,” *Child Development,* Vol. 69, 848-72.

Tabors, P. and C. Snow. 2001. “Young Bilingual Children and Early Literacy Development,“ in *Handbook of Early Literacy Research.* Edited by S. Neuman and D. Dickinson. New York: Guilford Press.

Yakima Superintendent Honored for Overcoming Challenges. Migrant Education News, 2006. http://www.migrantednews.org/men.cfm?yed=2006&edition=spring&lang=english&article=Soria (accessed April 2008).

Interview with Vocabulary Development Expert Andrew Biemiller. 2007. Baltimore Curriculum Project Class notes.

Walley, Amanda C., J.L. Mestsal, and V.M. Garlock. 2003. “Spoken vocabulary growth: Its role in the development of phoneme awareness and early reading ability,” *Reading and Writing: An Interdisciplinary Journal,”* Vol.16, 5-20.

Mathematics

Adding It Up: Helping Children Learn Mathematics. 2001. J. Kilpatrick; J.J. Swafford; and B. Findell. Washington, DC: National Academy Press.

Becker, J. 1989. “Preschoolers’ Use of Number Words to Denote One to One Correspondence,“ *Child Development,* Vol. 60, 1147-57.

Brush, L. R. 1978. “Preschool Children’s Knowledge of Addition and Subtraction,” *Journal of Research in Mathematics Education,”* Vol. 9, 44-54.

Clements, D. H. 2004a. “Major Themes and Recommendations,” *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education,”* Edited by D.H. Clements; J. Sarama; and A.M. DiBiase. Mahwah, NJ: Erlbaum.

Clements, D.H. 2004b. “Geometric and Spatial Thinking in Early Childhood Education,” *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education,”* Edited by D.H. Clements; J. Sarama; and A.M. DiBiase. Mahwah, NJ: Erlbaum.

Clements, D.H. 2004. “Measurement in Pre-K to Grade 2 Mathematics,” in *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education,”* Edited by D.H. Clements; J. Sarama; and A.M. DiBiase. Mahwah, NJ: Erlbaum.

Copley, J. 2001. *The Young Child and Mathematics.* Washington, DC: National Association for the Education of Young Children.

From Neurons to Neighborhoods: The Science of Early Childhood Development. 2000. Edited by J. P. Shonkoff and D.A. Phillips, Washington, DC: National Academy Press.

Fuson, K.C. 1992b. “Research on Whole Number Addition and Subtraction,” in *Handbook of Research on Mathematics Teaching and Learning.* Edited by D. Grouws. New York: Macmillan.

Fuson, K.C. 2004. “Pre-K to Grade 2 Goals and Standards: Achieving 21st Century Mastery for All,” *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education.* Edited by D.H. Clements; J. Sarama; and A.M. DiBiase. Mahwah, NJ: Erlbaum.

Ginsburg, H.P.; N. Inoue; and K.H. Seo. 1999. “Young Children Doing Mathematics: Observations of Everyday Activities,” *Mathematics in the Early Years.* Edited by J.V. Cooper. Reston, VA: National Council of Teachers of Mathematics.

Ginsburg, H.P.; and K. Seo. 1999. “Mathematics in Children’s Thinking,” *Mathematical Thinking and Learning 1,* No. 2, 113-29.

Ginsburg, H.P.; and others, 2006. “Mathematical Thinking and Learning,” *Blackwell Handbook of Early Childhood Development.* K. McCartney and D. Phillips. Malden, MA: Blackwell Publishing.

Joyner, J., A. Andrews, D.H. Clements, A. Flores, C. Midgett, and J. Roiotmen. “Standards for Grades Pre-K-2.” *Principles and Standards for School Mathematics*, Edited by J. Ferrini-Mundy; W.G. Martin; and E. Galindo.

Klein, A., and P.J. Starkey. 2004. “Fostering Preschool Children’s Mathematical Knowledge: Findings from the Berkeley Math Readiness Project,” in *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education,* Edited by D.H. Clements and J. Sarama. Hillsdale, NJ: Lawrence Erlbaum.

National Association for the Education of Young Children (NAEYC) and National Council of Teachers of Mathematics (NCTM). 2002. *Joint Position Statement, Early Childhood Mathematics: Promoting Good Beginnings.*

National Council of Teachers of Mathematics (NCTM). 2000. *Principles and Standards for School Mathematics*. Reston, VA: Author.

National Council of Teachers of Mathematics (NCTM). 2007. *Focal Points*. Reston, VA.

Project Zero and Reggio Children. 2001. *Making Learning Visible: Children as Individual and Group Learners.* Reggio Emilia, Italy: Reggio Children.

Starkey, P. 1992. “The Early Development of Numerical Reasoning,” *Cognition,* Vol. 43, 93-126.

Starkey, P., and R.G. Cooper. 1995. “The Development of Subitizing in Young Children.” *British Journal of Developmental Psychology,* Vol. 13, 399-420.

Starkey, P.; A. Klein; and A. Wakeley. 2004. “Enhancing Young Children’s Mathematical Knowledge through a Pre-kindergarten Mathematics Intervention,” *Early Childhood Research Quarterly,* Vol. 19, 99-120.

Physical Development

Vlachopoulos, S; S. Biddle; and K. Fox. 1997. “Determinants of Emotion in Children’s Physical Activity: A Test of Goal Perspectives and Attribution Theories,” *Pediatric Exercise Science,* Vol. 9, 65-79.

Social Emotional/School Readiness

Berlin, Lisa J. and Jude Cassidy. 1999. “Relations among Relationships: Contributions from Attachment Theory and Research,“ *Handbook of Attachment: Theory, Research and Clinical Applications*. Edited by Jude Cassidy and Phillip Shaver. New York: Guilford.

Birch, Sondra H.; and Gary W. Ladd. 1997. “The Teacher–Child Relationship and Children’s Early School Adjustment,” *Journal of School Psychology*, Vol. 35, No. 1, 61-79.

Brazelton, T.B., and Joshua D. Sparrow. 2001. *Touchpoints Three to Six: Your Child's Emotional and Behavioral Development*. Cambridge, NA: Perseus.

Bricker, Diane, and others. 1999. *Ages and Stages Questionnaires (ASQ): A Parent-Completed, Child-Monitoring System (Second edition)*. Baltimore: Paul H. Brookes Publishing.

Bronfenbrenner, U. 1979. *The Ecology of Human Development.* Cambridge, MA: Harvard University Press.

Burton, R. and S.A. Denham. 1998. "Are You My Friend? A Qualitative Analysis of a Social-Emotional Intervention for At–Risk 4-year-olds," *Journal of Research in Childhood Education.* Vol. 12, 210-224.

Byers, J.A., 1998. "The Biology of Human Play," *Child Development,* Vol. 69, 599-600.

The Child Mental Health Foundations and Agencies Network. 2003. *A Good Beginning: Sending America's Children to School with the Social and Emotional Competence They Need to Succeed.* Chapel Hill: University of North Carolina, FPG Child Development Center, p.v.

Committee on Early Childhood Pedagogy, National Research Council. 2001. *Eager to Learn: Educating Our Preschoolers.* Edited by Barbara T. Bowman; M.S. Donovan; and M.S. Burns. Washington, DC: National Academy Press.

Committee on Integrating the Science of Early Childhood Development, National Research Council and Institute of Medicine 2000. *From Neurons to Neighborhoods: The Science of Early Childhood Development.* Edited by Jack P. Shonkoff and Deborah A. Phillips. Washington, DC: National Academy Press.

Cox. M.J., S.E. Rimm-Kaufman, and R.C. Pianta. (in press). "Teachers' Judgments of Problems in the Transition to Kindergarten," *Early Childhood Research Quarterly.*

Crosser, S. 1992. "Managing the Early Childhood Classroom," *Young Children,* Vol. 47, No. 2, 23-29.

Denham, Susanne, and others. 2001. "Preschoolers at Play: Co-Socialisers of Emotional and Social Competence," *International Journal of Behavioral Development*, Vol. 25, No. 4, 290-301.

Developmentally Appropriate Practice in Early Childhood Programs (Revised edition). 1997. Edited by Sue Bredekamp and Carol Copple. Washington, DC: National Association for the Education of Young Children.

Denham, S.A. 1986. "Social Cognition, Social Behavior, and Emotion in Preschoolers: Contextual Validation," *Child Development,* Vol. 57, 194-201.

Duncan, Greg J., and others. 2007. "School Readiness and Later Achievement," *Developmental Psychology,* Vol. 43, No. 6, 1428-1225.

Dunn, L., S.A. Beach, and S. Kontos. 1994. "Quality of Literacy Environment in Day Care and Children's Development," *Journal of Research in Childhood Education,* Vol. 9, No.1, 24-34.

Eisenberg, N., and others. 2004. "The Relations of Effortful Control and Impulsivity to Children's Resiliency and Judgment," *Child Development,* Vol. 75, No. 1, 25-46.

Harris, Paul. 2006. "Social Cognition," *Handbook of Child Psychology* (6th edition), Vol. 2. *Cognition, Perception, and Language.* Edited by William Damon and others. New York: Wiley.

Hart, B., and T.R. Risley. 1995. *Meaningful Differences in the Everyday Experiences of Young American Children.* Baltimore: Paul H. Brookes Publishing Co.

Holden, G.W.; and L.A. Edwawrds. 1989. "Parental Attitudes Toward Child Rearing: Instruments, Issues, and Implications," *Psychological Bulletin,* Vol. 106, 29-58.

Howes, C. 1997. "Children's Experiences in Center-Based Child Care as a function of Teacher Background and Adult-Child Ratio," *Merril-Palmer Quarterly,* Vol. 43, No. 3, 404-425.

Howes, C.; L.C. Phillipsen; and E. Peisner-Feinberg. "The Consistency of Perceived Teacher-Child Relationships ^between Preschool and Kindergarten," *Journal of School Psychology ,* Vol. 38, No. 2, 113-132.

Huffman, L.C.; S.L. Mehlinger; and A.S. Kerivan. 2000. "Risk Factors for Academic and Behavioral Problems ^At the Beginning of School," *Off to a Good Start: Research on the Risk Factors for Early School Problems and Selected Federal Policies Affecting Children's Social and Emotional Development and Their Readiness for School.* Chapel Hill: University of North Carolina, FPG Child Development Center.

Landry, S.H.; K.E. Smith; C.L. Miller-Loncar; and P.R. Swank. 1997. "Predicting Cognitive-Linguistic and Social Growth Curves from Early Maternal Behaviors in Children at Varying Degrees of Biologic Risk," *Developmental Psychology,* Vol. 33, 1-14.

Landry, S. H.; K.E. Smith; P.R. Swank; M. Assel; and N.S. Vellet. 2001. "Does Early Responsive Parenting Have a Special Importance for Children's Development or Is Consistency across Early Childhood Necessary?" *Developmental Psychology,* Vol. 37, No. 3, 387-403.

McLane, J.B., and J. Spielberger. 1996. "Play in Early Childhood Development and Education: Issues and Questions," *Topics in Early Education: Playing for Keeps,* Vol. 2, Edited by A. Phillips. St. Paul, MN: Red Leaf Press.

McLaine, J.B. 2003. "'Does not,' 'Does too.' Thinking about Play in the Early Childhood Classroom," Occasional paper no. 4, Herr Reasearch Center, Erikson Institute.

National Educational Goals Panel. 1991. Goal 1 Technical Planning Group Report on School Readiness. Washington, DC: Author, 10-11.

National Research Council Committee on Early Childhood Pedagogy, Commission on Behavioral and Social Sciences and Education. 2001. *Eager to Learn: Educating Our Preschoolers,* Edited by B.T. Bowman; M.S. Bonovan; and S. Burns. Washington, DC: National Academy Press, 48.

National Research Council and Institute of Medicine Board on Children, Youth and Families, Commission on Behavioral and Social Sciences and Education. 2001. *From Neurons to Neighborhoods: The Science of Early Childhood Development,* Edited J.P. Shankoff; and D. Phillip. Washington, DC: National Academy Press.

Piaget, J. 1952. *The Origins of Intelligence in Children.* New York: Norton.

Pianta, Robert. C., Michael S. Steinberg, and Kristin B. Rollins. 1995. "The First Two Years of School: Teacher-Child Relationships and Deflections in Children's Classroom Adjustment," *Development and Psychopathology,* Vol.7, 295-312.

Project Zero and Reggio Children. *Making Learning Visible: Children as Individual and Group Learners.* Reggio Emilia, Italy: Reggio Children, 2001.

Rall, J.; and P.L. Harris. 2000. “In Cinderella’s Slippers: Story Comprehension from the Protagonist’s Point of View,” *Development Psychology,* Vol. 36, No. 2, 202-208.

Raver, C.C.; and J. Knitzer. 2002. “Ready to Enter: What Research Tells Policymakers about Strategies to Promote Social and Emotional Readiness among 3- and 4-Year-Old Children,” National Center for Children in Poverty policy paper.

Thelen, E.; and L.B. Smith. *A Dynamic Systems Approach to the Development of Cognition and Action.* Cambridge MA: MIT Press, 222, 311.

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