

New Jersey State Department of Education

Preschool Teaching and Learning Standards

2014

ACKNOWLEDGMENTS

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HISTORY

In April 2000, the Department of Education first developed and published *Early Childhood Program Expectations: Standards* as guidance for adults working with young children. In July 2004, the State Board of Education adopted a revised version of this work, *Preschool Teaching and Learning Expectations: Standards of Quality*. Then, in 2007, the Department embarked on the ambitious project of revising the latter work and aligning the preschool standards directly with New Jersey's K-12 Core Curriculum Content Standards. In 2009, after extensive review by education experts, stakeholders, and the public, the State Board adopted the *Preschool Teaching and Learning Standards*, with additional revisions. In 2013, the standards were modified to directly align with the Common Core Standards, and Approaches to Learning was added.

ABOUT THIS DOCUMENT

The first four sections of *Preschool Teaching and Learning Standards* present information on the theoretical background, development, and use of the preschool standards. This information is essential to effectively using the preschool standards to support the particular needs of all young children in a high-quality preschool program.

Next, the preschool standards, along with optimal teaching practices, are provided for the following content areas: Social/Emotional Development, Visual and Performing Arts, Health, Safety, and Physical Education, English Language Arts, Approaches to Learning, Mathematics, Science, Social Studies, Family, and Life Skills, World Languages, Technology

The document concludes with a bibliography of books, articles, and periodicals that are valuable resources for any professional library.

The Numbering of the Preschool Standards

Each of the preschool standards and indicators is assigned two numbers. First, each is numbered as part of this document, *Preschool Teaching and Learning Standards*. Second, all preschool indicators are included in the P-12 database, where they are numbered using a five-digit code, as follows:

X.X.	X.	X.	X
↑	↑	↑	↑
content area/standard	grade	strand	indicator

Preschool Teaching and Learning Standards presents both numbers for every preschool indicator: (1) the preschool indicator number is in a column to the left of each indicator, and (2) the P-12 database indicator number is in a column to the right of each indicator.

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BACKGROUND

The 2013 preschool teaching and learning standards are grounded in a strong theoretical framework for delivering high quality educational experiences to young children. The *Preschool Teaching and Learning Standards* document:

- Defines supportive learning environments for preschool children.
- Provides guidance on the assessment of young children.
- Articulates optimal relationships between and among families, the community, and preschools.
- Identifies expected learning outcomes for preschool children by domain, as well as developmentally appropriate teaching practices that are known to support those outcomes.

The preschool standards represent what preschool children know and can do in the context of a high quality preschool classroom. Childhood experiences can have long-lasting implications for the future. The earliest years of schooling can promote positive developmental experiences and independence while also optimizing learning and development.

The Standards and the Classroom Curriculum

As with the K-12 content standards, the preschool standards were written for all school districts in the state. They are intended to be used as:

- A resource for ensuring appropriate implementation of the curriculum
- A guide for instructional planning
- A framework for ongoing professional development
- A framework for the development of a comprehensive early childhood education assessment system

The curriculum is defined as an educational philosophy for achieving desired educational outcomes through the presentation of an organized scope and sequence of activities with a description and/or inclusion of appropriate instructional materials. The preschool standards are not a curriculum, but are the learning targets for a curriculum. All preschool programs must implement a comprehensive, evidence-based preschool curriculum in order to meet the preschool standards.

Developmentally appropriate teaching practices scaffold successful achievement of the preschool standards. Such practice is based on knowledge about how children learn and develop, how children vary in their development, and how best to support children's learning and development. It is important to note, therefore, that although the preschool domains are presented as discrete areas in this document, the program must be delivered in an integrated manner through the curriculum's daily routines, activities, and interactions.

Preschool educational experiences are intended to stimulate, assist, support, and sustain emergent skills. Preschools aim to offer experiences that maximize young children's learning and development, providing each child with a foundation for current and future school success.

Issues of Implementation

This document was developed for implementation in any program serving preschool children. To ensure that all students achieve the standards, the preschool environment, instructional materials, and teaching strategies should be adapted as appropriate to meet the needs of individual children. The needs of preschool learners are diverse. Many learners need specialized and focused interventions to support and sustain their educational progress. In addition, they come from many different cultural and ethnic backgrounds, and in some cases, the dominant language spoken in these homes and communities is not English.

Special Education Needs

Careful planning is needed to ensure the successful inclusion of preschoolers with disabilities in general education programs. The focus should be on identifying individual student needs, linking instruction to the preschool curriculum, providing appropriate supports and program modifications, and regularly evaluating student progress.

The preschool standards provide the focus for the development of Individualized Education Plans (IEPs) for preschool children ages three and four with disabilities. Providing appropriate intervention services to such students is in accordance with the Individuals with Disabilities Act Amendments of 2004, which guarantee students with disabilities the right to general education program adaptations, as specified in their IEPs and with parental consent. These federal requirements necessitate the development of adaptations that provide preschool children with disabilities full access to the preschool education program and curriculum. Such adaptations are not intended to compromise the learning outcomes; rather, adaptations provide children with disabilities the opportunity to develop their strengths and compensate for their learning differences as they work toward the learning outcomes set for all children.

Preschoolers with disabilities demonstrate a broad range of learning, cognitive, communication, physical, sensory, and social/emotional differences that may necessitate adaptations to the early childhood education program. Each preschooler manifests his or her learning abilities, learning style, and learning preferences in a unique way. Consequently, the types of adaptations needed and the program in which the adaptations are implemented are determined individually within the IEP.

The specific models used to develop adaptations can range from instruction in inclusive classrooms to instruction in self-contained classrooms; specific adaptations are determined by individual students' needs. Technology is often used to individualize preschool learning experiences and help maximize the degree to which preschool children with disabilities are able to participate in the classroom.

Supporting Diversity – English Language Learners (ELL) and Multiculturalism

In public schools throughout the United States, the population of English language learners (ELL) has shown steady growth over the last decade. English language learners are comprised of many different ethnic and linguistic groups. In New Jersey schools, the vast majority of English language learners are native Spanish speakers. However, there are over 187 languages spoken in the public schools throughout the state, presenting both challenges and opportunities. Students who speak other languages at home, especially those students with limited English proficiency,

have specific linguistic needs that must be addressed, that supports their optimal learning and development to ensure that they are provided a quality educational experience.

It is important that administrators and teachers acquire knowledge of the stages of second language development; and developmentally appropriate strategies, techniques and assessments to maintain, develop and support the home language, and proficiency in English. Effective instructional practices that provide young English language learners with linguistic and cognitive support must be embedded within the context of age-appropriate classroom routines, hands-on activities and lessons. Strategies for working with English language learners can be found in each section of the standards.

A strong home, school, community connection built on mutual respect and appreciation increases opportunities for learning and collaboration. Sensitivity to and support for diversity in culture, ethnicity, language and learning must be woven into the daily activities and routines of the early childhood classroom. It is essential for teachers to understand cultural variations and practices and to create a child-centered classroom that celebrates the diversity of all the children in the classroom. Various aspects of culture can have a direct affect on verbal and non-verbal communication, and it is vital for teachers to understand, embrace and celebrate the background and variations of all their students, particularly their culturally and linguistically diverse students.

Young children are developing their sense of self and of others, within their families, classrooms and communities. The early childhood program must provide a variety of diverse materials, books, activities and experiences that increase young children's awareness of similarities and differences in self and others. In order to facilitate a culturally responsive classroom, that nurtures, supports and enhances the learning of all students, it is critical that administrators and teachers engage in self-reflection and dialogue to understand their personal attitudes, uncover their biases, and develop cultural sensitivity and a willingness to learn about the variety of students and families within the early childhood program.

Professional Development

Implementation of the curriculum to meet the preschool standards is a continuous, ongoing process. Full understanding of the curriculum, and familiarity with the developmentally appropriate practices necessary for its implementation, can be fostered through a well-organized and consistent plan for professional development geared to each stakeholder group. For such a plan to be successful:

- District boards of education and boards of private provider and local Head Start agencies need to make professional development a priority and support it by allocating necessary resources.
- Administrators need to provide curriculum support, resources, materials, and opportunities for staff to improve their teaching practices. Preschool directors, principals, education supervisors, and directors of special education must actively pursue and provide professional development activities, as well as time for teachers to reflect on and refine their practice in light of these activities. Teachers, in turn, must actively engage in the professional development activities.

- Early childhood teachers and assistants, special education teachers, bilingual educators, principals, supervisors, master teachers, support staff, preschool intervention and referral teams, child study team members, and related service providers need to review and develop the professional development plan together.
- Families should be introduced to developmentally appropriate practices and have access to resources that promote their children's learning and development. They also need opportunities to participate in the early childhood education program.
- Colleges and universities should include the preschool standards in their coursework for early childhood educators.

HOME, SCHOOL, AND COMMUNITY PARTNERSHIPS

Introduction

Supportive preschool partnerships help create the kind of environment in which families, schools, and the community work together to achieve and sustain shared goals for children. A well-defined preschool education plan should incorporate a wide range of family involvement and family educational opportunities to foster such partnerships.

Trust and respect are essential to building collaborative relationships between school staff and families. An integral component of the partnership is recognition of families as the experts about their children. The program and its staff must always show respect for the child, the family, and the culture of the home.

In addition, ongoing communication helps ensure that appropriate and effective learning opportunities are available to children at home and in school. The give and take inherent in these relationships promotes both the school's and the family's understanding of the child. The family involvement guidelines of the National Association for the Education of Young Children emphasize the importance of the family/school partnership, particularly when it comes to acquiring knowledge of young learners:

“The younger the child, the more necessary it is for professionals to acquire this knowledge through relationships with children's families.”

Outlined below is a well-defined plan for establishing and nurturing reciprocal relationships with families and the community.

Governance and Structure

The preschool program design provides structure and policies that encourage and support partnerships between the home and school. In particular:

- Family members are involved in aspects of program design and governance (e.g., advisory councils and school leadership/management teams).
- Opportunities are provided for preschool staff and families to develop the skills necessary to actively and effectively participate in the governance process (e.g., workshops offered by the program, seminars sponsored by the Department of Education, speakers and activities sponsored by colleges and universities and/or child advocacy organizations).
- Advisory council meetings and parent programs are held at times that are conducive to family participation (i.e., activities are not always scheduled during the day, when most people are at work).
- Program policies actively encourage and support family involvement (e.g., family members are welcomed as volunteers in the classroom and other areas of the program, family members are encouraged to observe in classrooms, family members see and interact with program administrators formally and informally).

Culture and Diversity

The preschool program design ensures recognition and respect for culture and diversity. In particular:

- Classroom materials reflect the characteristics, values, and practices of diverse cultural groups (e.g., books are available in a variety of languages; artwork reflects a broad spectrum of races, cultures, and ages, both boys and girls, and diverse lifestyles, careers, locations, and climates).
- Cultural and religious practices are acknowledged and respected throughout the year (e.g., absences for religious holidays are allowed, dietary restrictions are respected, culturally driven reasons for nonparticipation in some school activities are honored).
- The uniqueness of each family is recognized and respected by all members of the school community (e.g., language, dress, structure, customs).
- Cultural traditions are shared in the classroom and throughout the program (e.g., pictures of specific cultural activities that children participated in are displayed in the classroom).

Communication

The preschool program design provides a two-way system of communication that is open and easily accessible, and in which families and community representatives are valued as resources and decision-makers. In particular:

- All program information is provided to families in lay terms, in the language most comfortable for each family, and using multiple presentation strategies (e.g., handbooks, videos, email, websites, television, and newspapers).
- Ongoing information concerning program/classroom standards and activities is provided to families and the community (e.g., a regular newsletter, a program website) and includes strategies family members can use to assist their children with specific learning activities or to extend their children's classroom learning through activities at home and in the community.
- Educational opportunities for family members are based on the needs and interests of children's families and include information on such topics as child development, supporting learning at home, and positive methods of discipline. Family members play an integral role in developing the family education program.
- Information about the child and family is solicited before enrollment and at regular intervals throughout the school year, using home visits, home-school conferences, informal chats, phone calls, emails, and notes.
- Documentation of each child's progress is provided for families, and understanding of the documentation is guided by written and verbal communications in the language most comfortable for the family. Instructional staff hold conversations with family members to better understand each family's goals for their children so that decisions about the most appropriate ways to proceed are made jointly.

- Pertinent information regarding individual children’s progress (e.g., child portfolios, teacher annotations) is provided to receiving schools when children transition from one program to another.
- Registration procedures and documents capture essential information about each child (e.g., family contacts, immunization records, special health needs).

Community Resources and Partnerships

The preschool program design ensures opportunities for building community partnerships and accessing community resources. In particular:

- Information about and referrals to community resources (e.g., employment opportunities, health services, and adult education classes) are provided to families.
- Large corporations, small businesses, and other organizations are invited to collaborate in supporting children and families (e.g., through the creation of a community resource board).
- Collaborations with community agencies help to ensure delivery of services to families who may benefit from them (e.g., a program can offer a meeting space for families to interact with community agencies).

Family Support

The preschool program design recognizes families as the experts about their children. In particular:

- Resources are provided to help families enhance the social, emotional, physical, and cognitive development of their children (e.g., a newsletter with ideas for educational trips, such as local museums and libraries; a listing of books to support the development of emergent literacy and numeracy skills; discussion sessions at which families share information about activities).
- Opportunities are developed to facilitate the creation of support networks among families with children enrolled in the program (e.g., monthly potluck dinners, game days for adults, fairs and craft shows to promote and support the talents of families, babysitting cooperatives).
- Family activities are planned at varying times of the day and week to encourage the participation of as many families as possible (e.g., at breakfast, at the end of the work day, in the evening, and on weekends).
- Family members are encouraged to visit the program when it is most convenient for them (e.g., to observe their child, volunteer during play, participate at meals and special events).

LEARNING ENVIRONMENT

Introduction

A supportive preschool learning environment promotes the development of children's critical thinking skills; fosters awareness of diversity and multiculturalism; and supports enthusiasm and engagement as the cornerstones of approaches to learning. The environment must nurture children's capacity to engage deeply in individual and group activities and projects. Such an environment is created through interactions with indoor and outdoor environments that offer opportunities for children to set goals and persist in following through with their plans while acquiring new knowledge and skills through purposeful play. Carefully planned instruction, materials, furnishings, and daily routines must be complemented by an extensive range of interpersonal relationships (adults with children, adults with adults, and children with children). In this setting, each child's optimal development across every domain (e.g., language, social, physical, cognitive, and social-emotional) will be supported, sustained, extended and enhanced.

While the adults in the preschool environment provide the conditions and materials that influence how children play and scaffold learning so that more sophisticated levels of interaction and expression are realized, it is the child who determines the roles and the rules shaping the play. The learning environment must, therefore, accommodate planned and unplanned, as well as structured and unstructured experiences. Unstructured play should take up a substantial portion of the day. Structured activities include daily routines that provide young children with needed stability and familiarity (e.g., circle time, small-group time, and lunch), as well as learning activities that integrate preschool content and achieve specific goals planned by adults. For both structured and unstructured activities, the learning environment must be welcoming, safe, healthy, clean, warm, and stimulating.

Preschool learning materials are arranged to invite purposeful play and thus facilitate learning. They provide opportunities for children to broaden and strengthen their knowledge through a variety of firsthand, developmentally appropriate learning experiences. Inviting preschool materials also help children acquire symbolic knowledge, which allows them to represent their experiences through a variety of age-appropriate media, such as drawing, painting, construction of models, dramatic play, and verbal and written descriptions.

Through its principles of child development and learning that inform developmentally appropriate practice, the National Association for the Education of Young Children provides the foundation for creating learning environments that foster optimal development of young children. Two of these principles hold special significance:

- Development proceeds in predictable directions toward greater complexity, organization, and internalization.
- Play is an important vehicle for, as well as a reflection of, the social, emotional, and cognitive development of all preschool children, including children with disabilities.

A rich and supportive preschool learning environment grows from attention to elements in the physical environment and daily routines. Both of these elements are elaborated in the sections that follow.

Learning Environment

An inviting and supportive learning environment that:

- Provides well-defined, accessible learning centers that encourage integration of multiple content areas (e.g., a library center that includes a range of materials, including child-made books, big books, picture books, books with words for adults to read, books on many topics, headsets with audiotapes, stories on the computer, and so on; a block center that includes many different kinds of building materials, such as large unit blocks, hollow blocks, cardboard vehicles, street signs, dolls, audio tapes, pencil, paper, tape measures, rulers, architectural images).
- Accommodates active and quiet activities (e.g., the library area may be for children that want to read alone, quietly listen to a book read by an adult, or listen to music through headsets, while the block area may encourage movement and discussion related to the planning and completion of projects).
- Provides materials that deepen knowledge of diversity and multiculturalism (e.g., dolls of different ethnicities and races, musical instruments from a variety of cultures, stories that show how one event is interpreted differently by different cultural groups, costumes and props for dramatic play, foods that represent diverse backgrounds).
- Offers individualized adaptations and modifications for preschool children with disabilities.
- Allows children easy access to an ample supply of materials.
- Includes ongoing opportunities for children to help, share and cooperate in a variety of activities, routines and group configurations.
- Offers space and opportunities for solitary, parallel, and small- and large-group play indoors and outdoors and in view of an adult.
- Displays classroom materials at children’s eye level.
- Creates a literacy-rich environment through a variety of print, audio, video, and electronic media.
- Includes materials and activities appropriate to a range of developmental levels and interests that encourage children’s engagement and persistence.

Daily Routines

Engaging daily routines that:

- Encourage the development of self-confidence by offering children multiple opportunities to make choices, such as deciding projects, selecting centers, or inviting classmates to be a part of an activity.
- Encourage curiosity, problem-solving, and the generation of ideas and fantasy through exploration.

- Are implemented flexibly to meet individual needs and provide opportunities for the success of all children (e.g., younger children with short attention spans are not forced to remain for long periods of time in a whole-group activity, dual language learners can demonstrate their abilities in their home language, as well as in English, children with disabilities are offered modifications and adaptations to meet their individualized needs).
- Provide opportunities for conversation and self-expression in English and in the child's home language, if other languages are spoken at home.
- Encourage and model the use of language in different social groups and situations.
- Stimulate questioning and discussion during all activities.
- Include the use of technology, such as computers and smart toys with age-appropriate software, to enhance the development of critical thinking skills.

THE DOCUMENTATION/ASSESSMENT PROCESS

Introduction

Assessment of young children is an ongoing process which includes identifying, collecting, describing, interpreting, and applying classroom-based evidence of early learning in order to make informed instructional decisions. This evidence may include records of children's conversations, their drawings and constructions, as well as photographs of and anecdotal notes describing their behaviors.

Documentation, a preliminary stage in the assessment process, focuses on identifying, collecting, and describing the evidence of learning in an objective, nonjudgmental manner. Teachers of young children should take the time to identify the learning goals, collect records of language and work samples, and then carefully describe and review the evidence with colleagues. Documentation of children's learning should be directly linked to a set of clearly defined learning goals. Furthermore, the documentation/assessment process should consist of materials that are culturally and linguistically appropriate, especially when using such materials to assess English language learners. In addition, when using assessment data to inform the instruction of all young children, which includes English language learners as well as children with disabilities, teachers must be sure to use multiple age-appropriate methods over time.

Careful documentation and assessment can increase the teacher's understanding of child development, assist in understanding the needs of the children in a specific class, and enhance the teacher's ability to reflect on the instructional program. Such reflections also assist teachers in articulating assessment purposes with appropriate community members and communicating assessment results with parents.

Major Purpose of Assessment in Early Childhood

The primary purpose of the assessment of young children is to help educators determine appropriate classroom activities for individuals and groups of children.

The documentation/assessment process should:

- Build on multiple forms of evidence of the child's learning.
- Take place over a period of time.
- Reflect the understanding of groups, as well as of individual children.
- Show sensitivity to each individual child's special needs, home language, learning style, and developmental stage.

The information collected in the documentation/assessment process should:

- Connect to developmentally appropriate learning goals.
- Add to understanding of the child's growth and development.
- Provide information that can be applied directly to instructional planning.
- Be communicated to the child's family and, to the extent appropriate, to the child.

Achievement Tests

Individual- and group-administered norm-referenced achievement tests are usually inappropriate tools for assessing young children's development. Such instruments are not typically designed to provide information on how children learn, how they might apply their learning to real-life situations, or how the test results relate to the teacher's instructional goals and planning.

Developmental Screening Measures

Developmental screening measures are administered to each child individually and are used as the first step in identifying children who may demonstrate developmental delay with language or motor skills, or problems with vision or hearing. In such cases, the results of the screening measures should be used to determine whether a child needs further comprehensive diagnostic assessment. Information received from a single developmental assessment or screening should never serve as the basis for major decisions affecting a child's placement or enrollment. Developmental screenings should be viewed as just one component in a comprehensive early childhood education assessment system. Assessment should be tailored to a specific purpose and should be used only for the purpose for which it has consistently demonstrated reliable results.

Referral for an Evaluation

When a parent or teacher has a concern about a child's development and suspects a potential disability, the parent or teacher may submit a written request for a special education evaluation to the district's child study team. The written request (also called a referral) must be submitted to the appropriate school official. This may be the principal of the neighborhood school, the director of special education, or the child study team coordinator for the district in which the child resides.

The parent, preschool teacher, and the child study team (school psychologist, school social worker, learning disabilities teacher-consultant, speech-language specialist) then meet to determine the need for evaluation, and if an evaluation is warranted, to discuss the assessments to be completed. If, after completion of the evaluation, a determination of eligibility is made, an Individualized Education Program (IEP) is developed for the child by the IEP team (a parent, a child study team member, a district representative, the case manager, a general education teacher, a special education teacher, and/or private provider). To the maximum extent appropriate, preschoolers with disabilities receive their early childhood education with their nondisabled peers. The IEP team determines modifications, interventions, supports, and supplementary services necessary to ensure the child learns.

The Importance of the Process for Teachers' Professional Development

The documentation/assessment process enhances the teacher's ability to:

- Identify the most appropriate learning experiences for children.
- Make more productive instructional planning decisions (e.g., how to set up the classroom, what to do next, what questions to ask, what resources to provide, how to stimulate each child's development, and what external support systems to use).

- Teach more effectively, using interactive experiences that enhance children’s development.
- Meet more of some children’s special needs and interests within the classroom. (The ongoing process of identifying, collecting, describing, interpreting, and applying classroom-based evidence can help the teacher to become more aware of and develop a broader repertoire of instructional strategies.)
- Respond more easily and effectively to demands for accountability.

The documentation/assessment process can also help young children to perceive learning to be important and worthwhile, as they see their teachers actively engaged in documenting their learning.

Portfolio Assessment

Portfolio assessment is the systematic and intentional collection of significant samples of each child’s work, together with the teacher’s comments on how the work samples and records of language serve as evidence of the child’s movement toward established learning goals. The portfolio process should clearly indicate the learning goals, should illustrate and document each child’s development over a period of time, should actively involve children, and should reflect each child’s individual development.

Some Strategies for Portfolio Assessment

- Determine the developmental area or areas to be assessed (e.g., spoken language, art, early literacy, symbolic play, motor skills, math concepts, creativity, peer relationships).
- Identify the documents that best demonstrate development (e.g., drawings, paintings, other artwork, photos, dictated stories, book choices, teacher’s notes, audiotapes, graphs, checklists).
- Regularly create a collection of samples with children’s input (e.g., record what the children tell you about a variety of things).
- Develop a storage system for the samples of children’s work.
- Describe the documents with colleagues in order to gain additional perspectives on each child’s development (e.g., study groups of teachers can be formed to collect and describe samples of children’s work).
- Connect the children’s work to the learning goals.
- Make sure the samples show the full range of what each child can do.
- Collect data that tells a clear story to the audience.

Observation

Observation of young children is crucial to appropriate documentation and assessment. However, observation is a skill that must be developed and perfected by the teacher over time. In the process of observing children, teachers can make use of the following techniques: rating forms, photography, narrative description, anecdotes, videotaping, journals, and recording of children’s conversations and monologues.

Observation must be intentional. As part of the daily classroom routine, it is probably the most authentic form of assessment. Observing what children do every day is the best place to start when creating a real-life profile of each child.

What to Observe

- Patterns in behavior reflecting motivation to learn, explore, or investigate a particular thing. These patterns are evidence that a child consistently exhibits these behaviors.
- Problem-solving strategies.
- Patterns of social interaction (i.e., determine individual preferences for large-group, small-group, or solitary play in the classroom and on the playground).
- Key attributes of the child (i.e., identify and list recurring interests).

How to Observe

- Observe regularly with a specific purpose.
- Observe children at different times of the day.
- Observe children in different settings throughout the school or center.
- Observe the usual demeanor of the child, not unusual behavior or bad days.
- Observe for new possibilities (e.g., if a child is having trouble, could the environment or circumstances be changed to assist the child?).

How to Involve Parents

Parents should be partners in the accurate and sensitive assessment of young children. The following practices help encourage parental involvement in child assessments:

- Accentuate the positive when assessing children.
- Build assessment comments about how a child is doing into everyday conversations with parents.
- Explain assessment approaches at a parent meeting or workshop. Be clear about the differences between standardized tests and authentic assessment.
- Write about assessment in a newsletter or a special letter home.
- Demonstrate that parents are valued as respected partners in the behavior and progress of their children.
- Support assessment comments with documentation showing what the child has accomplished over time.

How to Involve Children

Everyone has a view of each child's abilities, preferences, and performances, including the child. To effectively involve the children in their own assessment:

- Observe and document things the children say and do. Often random statements such as, “I was this big on my last birthday, now I’m THIS big,” are evidence that children are capable of assessing what they can do and how they are changing.
- Ask children about themselves. Children will tell you what they do and do not like to do. Some children may prefer a private, intimate setting in which they have your undivided attention, while some children may respond to more informal discussions in busier settings.
- Ask children to assess their work. Ask children to help decide which work should be included in their portfolios. Respect their choices and responses about their work.
- Let children take pictures of their most prized work from time to time. They can make a bulletin board display of their specially chosen pictures or collect them in a portfolio.

SOCIAL/EMOTIONAL DEVELOPMENT

Introduction

Young children’s social/emotional growth and learning occurs as a result of their interactions with others and is interconnected with their development in the physical and cognitive domains. Relationships with adults and children in the preschool environment exert a powerful positive influence on children’s social/emotional development. A high quality preschool program requires dedicated and qualified teaching staff, working in partnership with children’s families, to systematically assist children in developing social competence and confidence.

As children move through the preschool day, their teachers carefully observe and listen to them and adapt their responses to suit individual children’s social and emotional needs. Preschool teachers support young students’ developing self-concepts and self-esteem by talking with them about their actions and accomplishments and by always showing respect for their feelings and cultures. Throughout the day, teachers coach and guide children as they interact with each other, and they support children’s social skills and problem-solving abilities. Within this community of learners, children develop the social and emotional competencies they need to fully immerse themselves in the preschool day and become successful learners.

There are five preschool standards for social/emotional development:

Standard 0.1: Children demonstrate self-confidence.

Standard 0.2: Children demonstrate self-direction.

Standard 0.3: Children identify and express feelings.

Standard 0.4: Children exhibit positive interactions with other children and adults.

Standard 0.5: Children exhibit pro-social behaviors.

Each of these five standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 0.1: Children demonstrate self-confidence.

Preschool Teaching Practices

Effective preschool teachers:

- Provide materials and activities to further learning at the child’s developmental level and to foster feelings of competence (e.g., knobbed and regular puzzles, looped scissors, open-ended art materials, child-sized manipulatives).
- Make adaptations to the classroom environment to support individual children’s needs (e.g., sensory table, quiet spaces, appropriately-sized furnishings, and visuals at eye level).

- Adapt materials and activities to support English and non-English language speakers (e.g., use labels with pictures to help children negotiate the classroom and make picture-word associations, dramatize actions while providing words for the actions in multiple languages, provide simple directions in multiple languages, offer books, music, and computer software in multiple languages).
- Use children’s ideas and interests to inspire activities and to engage students in discussions (e.g., tire tracks made by bicycle wheels on the playground can lead to an exploration and discussion of the different kinds of tracks made by an assortment of wheeled vehicles).
- Use open-ended questions to begin a discussion with individual children or groups of children (e.g., “What might happen if ...?” “What would you do if ...?” or “How would you feel if ...”).
- Model verbal descriptions of children’s actions and efforts (e.g., “Anna used the paintbrush to make squiggles.”).
- Ask questions that encourage children to describe their actions and efforts (e.g., “Joseph, will you tell Maria how you used the computer mouse to change your drawing?”).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
0.1.1	Express individuality by making independent decisions about which materials to use.	0.1.P.A.1
0.1.2	Express ideas for activities and initiate discussions.	0.1.P.A.2
0.1.3	Actively engage in activities and interactions with teachers and peers.	0.1.P.A.3
0.1.4	Discuss their own actions and efforts.	0.1.P.A.4

Standard 0.2: Children demonstrate self-direction.

Preschool Teaching Practices

Effective preschool teachers:

- Organize the classroom environment and establish a daily routine that enables children to independently choose materials and put them away on their own (e.g., keep supplies on low shelves, use child-sized utensils, organize centers so that children can maneuver easily).
- Facilitate open-ended and child-initiated activities to encourage independence and self-direction (e.g., Jorge’s interest in trains might lead a small group of children to build a train station from materials found in the classroom).

- Use songs, rhymes, movement, and pictures to reinforce independent functioning in the classroom (e.g., post pictures that represent the daily schedule, sing songs to cue transition times).
- Limit whole-group activities to short periods of time with interactive involvement (e.g., body movement, singing, finger-plays).
- Keep transitions short to adapt to children’s limited attention spans, and conduct daily routines (e.g. toileting and washing hands) individually or in pairs to avoid whole-group waiting times and to support independence. Limit whole-group transitions and use them as learning times (e.g., “Children who ride the #4 bus may get their coats.” or “Children in the Armadillo group may go wash their hands.”).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
0.2.1	Make independent choices and plans from a broad range of diverse interest centers.	0.2.P.A.1
0.2.2	Demonstrate self-help skills (e.g., clean up, pour juice, use soap when washing hands, put away belongings).	0.2.P.A.2
0.2.3	Move through classroom routines and activities with minimal teacher direction and transition easily from one activity to the next.	0.2.P.A.3
0.2.4	Attend to tasks for a period of time.	0.2.P.A.4

Standard 0.3: Children identify and express feelings.

Preschool Teaching Practices

Effective preschool teachers:

- Develop children’s awareness of a wide range of feelings with appropriate vocabulary during discussions and storytelling (e.g., “The three little kittens lost their mittens. How do you think they felt?”).
- Provide literature, materials, and activities (e.g., drawing, writing, art, creative movement, pretend play, puppetry, and role-playing) that help children interpret and express a wide range of feelings related to self and others with appropriate words and actions.
- Model appropriate language for children to use when expressing feelings such as anger and sadness during social interactions (e.g., “James, tell John how it made you feel when he pushed you. Did it make you angry?” “I felt angry when you pushed me. I didn’t like it!”).

- Provide specific techniques children can learn to use to channel anger, minimize fear, and calm down (e.g., taking three deep breaths, using calming words, pulling self out of play to go to a “safe spot” to relax, listening to soft music, or working with clay).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
0.3.1	Recognize and describe a wide range of feelings, including sadness, anger, fear, and happiness.	0.3.P.A.1
0.3.2	Empathize with feelings of others (e.g., get a blanket for a friend and comfort him/her when he/she feels sad).	0.3.P.A.2
0.3.3	Channel impulses and negative feelings, such as anger (e.g., taking three deep breaths, using calming words, pulling self out of play to go to “safe spot” to relax, expressive activities).	0.3.P.A.3

Standard 0.4: Children exhibit positive interactions with other children and adults.

Preschool Teaching Practices

Effective preschool teachers:

- Comment on specific positive behavior instead of giving empty praise (e.g., “Shadeen, you helped Keisha with her coat. Now she will be warm and cozy.”).
- Encourage nurturing behavior through modeling, stories, and songs.
- Encourage the use of manners through modeling and role-playing (e.g., holding the door for a friend, using “please,” “thank you,” and “excuse me”).
- Demonstrate and involve children in respecting the rights of others (e.g., “Devon, first Sheila will take a turn, and then it will be your turn.”).
- Encourage expressing needs verbally by modeling appropriate language (e.g., “Ask Nancy if she can please pass the juice to you.”).
- Involve children in solving problems that arise in the classroom using conflict resolution skills (e.g., talk about the problem, and the feelings related to the problem, and negotiate solutions).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
0.4.1	Engage appropriately with peers and teachers in classroom activities.	0.4.P.A.1
0.4.2	Demonstrate socially acceptable behavior for teachers and peers (e.g., give hugs, get a tissue, sit next to a friend/teacher, hold hands).	0.4.P.A.2
0.4.3	Say “thank you,” “please,” and “excuse me.”	0.4.P.A.3
0.4.4	Respect the rights of others (e.g., “This painting belongs to Carlos.”).	0.4.P.A.4
0.4.5	Express needs verbally or nonverbally to teacher and peers without being aggressive (e.g., “I don’t like it when you call me dummy. Stop!”).	0.4.P.A.5
0.4.6	Demonstrate verbal or nonverbal problem-solving skills without being aggressive (e.g., talk about a problem and related feelings and negotiate solutions).	0.4.P.A.6

Standard 0.5: Children exhibit pro-social behaviors.***Preschool Teaching Practices***

Effective preschool teachers:

- Pair or group children to foster friendship (e.g., partners, buddies, triads).
- Provide toys and plan activities to encourage cooperative play (e.g., provide two telephones so children can talk to each other in dramatic play).
- Collaborate with children on activities while modeling language and pretend skills as needed for play (e.g., teacher pretends to be mother or father in housekeeping corner and soothes her crying baby; teacher and children build a block structure; teacher and children make a cave out of a box; teacher pretends to be a mama bear and the children are bear cubs).
- Identify strategies to enter into play with another child or group of children (e.g., bring materials into play, give a play suggestion, be helpful, give a compliment).
- Gauge and provide the appropriate amount of support necessary for children to be successful during activities and play (e.g., teacher demonstrates pretend play skills, and as children become involved in meaningful interaction with other children, the teacher adjusts the level of support).

- Provide opportunities to take turns (e.g., “Maria gets to pull the wagon one time around the yard, and then it is Jack’s turn.”).
- Provide opportunities that encourage children to share toys and materials (e.g., “There is one basket of markers for Christen and Jameer to share.”).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
0.5.1	Play independently and cooperatively in pairs and small groups.	0.5.P.A.1
0.5.2	Engage in pretend play.	0.5.P.A.2
0.5.3	Demonstrate how to enter into play when a group of children are already involved in play.	0.5.P.A.3
0.5.4	Take turns.	0.5.P.A.4
0.5.5	Demonstrate understanding the concept of sharing by attempting to share.	0.5.P.A.5

VISUAL & PERFORMING ARTS

Introduction

The creative arts are children's first language, used to communicate thoughts, ideas, and feelings. Some of the most effective means children have for explaining and understanding their world is through the arts. For young children, the critical component of the arts is the creative process rather than the end result or product. In the creative process, approaches to learning such as initiative, curiosity, engagement, persistence, reasoning, and problem-solving are reinforced through concrete, hands-on, individualized, and group learning experiences.

Environments that stimulate creativity through visual art, music, dramatic play, and creative movement and dance support all aspects of development and learning. In many instances, creative arts in the preschool classroom are inextricably linked to other curriculum areas and can be used as a strategy for learning about local communities, different cultures, and other content. When integrated in a developmentally appropriate way, the creative arts promote memory, cognition, observation, inquiry, and reflection. The arts also help children appreciate beauty in the environment, in their everyday world, and in works of art.

Sometimes feelings or understandings that cannot be expressed well in words can be well expressed through the arts. It is vitally important to provide children with the materials and time necessary to explore, experiment, and create in their own way throughout the day, integrating the arts into all domains and subject areas. Providing children with the freedom to create does not preclude the teacher from supporting children's artistic development by using strategies such as describing, modeling, and providing feedback to scaffold their learning. The teacher should be knowledgeable about artistic traditions of different cultures and should integrate aspects of such cultures throughout the classroom environment and activities.

There are four preschool visual and performing arts standards:

- Standard 1.1: Children express themselves through and develop an appreciation of creative movement and dance.**
- Standard 1.2: Children express themselves through and develop an appreciation of music.**
- Standard 1.3: Children express themselves through and develop an appreciation of dramatic play and storytelling.**
- Standard 1.4: Children express themselves through and develop an appreciation of the visual arts (e.g., painting, sculpting, and drawing).**

Each of these four standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 1.1: Children express themselves through and develop an appreciation of creative movement and dance.

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for children to participate in both structured and unstructured dance/movement activities that help build motor control and body relationships and that strengthen self-regulation and memory (e.g., provide music and props and encourage children to make up their own dance movements, play musical “freeze” and other games).
- Participate in all movement and dance activities with the children.
- Model different dance movements (e.g., twist, bend, leap, slide).
- Use correct vocabulary when referring to movements (e.g., gallop, twist, stretch).
- Provide opportunities for children to experience creative movement and dance performances (e.g., performances by peers, family members, or professional artists in the classroom) and encourage children to observe, listen, and respond.
- Connect movement and dance to curriculum themes and to other content areas and domains throughout the day, especially fine- and gross-motor skills, coordination, and other areas of physical development.
- Observe and encourage children’s approaches to learning dance and movement.
- Provide a range of music from different cultures and genres for dance and movement activities (e.g., classical, jazz, rock, salsa, reggae, rap, and others).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
1.1.1	Move the body in a variety of ways, with and without music.	1.3.P.A.1
1.1.2	Respond to changes in tempo and a variety of musical rhythms through body movement.	1.3.P.A.2
1.1.3	Participate in simple sequences of movements.	1.3.P.A.3
1.1.4	Define and maintain personal space, concentration, and focus during creative movement/dance performances.	1.3.P.A.4
1.1.5	Participate in or observe a variety of dance and movement activities accompanied by music and/or props from different cultures and genres.	1.3.P.A.5

1.1.6	Use movement/dance to convey meaning around a theme or to show feelings.	1.3.P.A.6
1.1.7	Describe feelings and reactions in response to a creative movement/dance performance.	1.4.P.A.1
1.1.8	Begin to demonstrate appropriate audience skills during creative movement and dance performances.	1.4.P.A.5

Standard 1.2: Children express themselves through and develop an appreciation of music.

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for children to play musical instruments (e.g., flute, triangle, drums, maracas, instruments from other cultures, homemade instruments) in their own way.
- Model what children can do with instruments (e.g., echoing, creating different levels of sound by striking different places on instruments).
- Use appropriate musical terminology (e.g., the correct names of instruments, terms such as rhythm and melody).
- Connect music to curriculum themes, other subject areas, and domains throughout the day.
- Introduce children to a wide variety of music that is appropriate in content for classroom activities and that reflects different cultures and genres (e.g., classical, jazz, rock, reggae, rap).
- Provide opportunities for children to experience musical recordings and/or performances (e.g., by peers, family members, or professional artists in the classroom) and encourage children to observe, listen, and respond.
- Observe and encourage children's approaches to playing instruments.
- Incorporate music and singing throughout the day, including during transitions (e.g., rhymes, steady beats, chanting songs such as Miss Mary Mack).
- Intentionally plan for daily musical experiences that encourage children to experiment with songs and musical instruments during free play and group activities.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
1.2.1	Sing a variety of songs with expression, independently and with others.	1.3.P.B.1
1.2.2	Use a variety of musical instruments to create music alone and/or with others, using different beats, tempos, dynamics, and interpretations.	1.3.P.B.2
1.2.3	Clap or sing songs with repetitive phrases and rhythmic patterns.	1.3.P.B.3
1.2.4	Listen to, imitate, and improvise sounds, patterns, or songs.	1.3.P.B.4
1.2.5	Participate in and listen to music from a variety of cultures and times.	1.3.P.B.5
1.2.6	Recognize and name a variety of music elements using appropriate music vocabulary.	1.3.P.B.6
1.2.7	Describe feelings and reactions in response to diverse musical genres and styles.	1.4.P.A.2
1.2.8	Begin to demonstrate appropriate audience skills during recordings and music performances.	1.4.P.A.6

Standard 1.3: Children express themselves through and develop an appreciation of dramatic play and storytelling.

Preschool Teaching Practices

Effective preschool teachers:

- Provide props and materials that promote children’s active participation in dramatic play and storytelling (e.g., dress-up clothes, objects from different cultures, storybooks, flannel boards, puppets), and rotate them on a regular basis by theme.
- Create a dramatic play area that is clearly defined, with space to play and for organized storage.
- Provide a variety of locations, indoors and outdoors, and times throughout the day for children to engage in dramatic play and storytelling in their own way (e.g., reenact a story during circle time, in the block area, or during outside time).
- Schedule daily dramatic play experiences during free play and group activities.

- Join in dramatic play to promote the development of cooperation and self-regulation skills, such as managing emotions, focusing attention, solving problems, and developing empathy.
- Encourage children to sustain and extend play by providing ideas for more complex roles (e.g., scaffold children’s ideas about playing ‘restaurant’ by suggesting that everyone in the restaurant has an important job to do).
- Expose children to stories from multiple cultures (e.g., at circle time, informally, during choice times) and provide props to represent diversity.
- Connect dramatic play to curriculum themes, content areas, and domains, and use stories and field trips to enrich play.
- Observe and encourage children’s approaches to engagement in dramatic play.
- Provide opportunities for children to experience storytelling and/or performances (e.g., by peers, family members, or professional artists in the classroom) and encourage children to observe, listen, and respond.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
1.3.1	Play roles observed through life experiences (e.g., mom/dad, baby, firefighter, police officer, doctor, mechanic).	1.3.P.C.1
1.3.2	Use memory, imagination, creativity, and language to make up new roles and act them out.	1.3.P.C.2
1.3.3	Participate with others in dramatic play, negotiating roles and setting up scenarios using costumes and props.	1.3.P.C.3
1.3.4	Differentiate between fantasy/pretend play and real events.	1.3.P.C.4
1.3.5	Sustain and extend play during dramatic play interactions (i.e., anticipate what will happen next).	1.3.P.C.5
1.3.6	Participate in and listen to stories and dramatic performances from a variety of cultures and times.	1.3.P.C.6
1.3.7	Describe feelings and reactions and make increasingly informed responses to stories and dramatic performances.	1.4.P.A.3
1.3.8	Begin to demonstrate appropriate audience skills during storytelling and performances.	1.4.P.A.7

Standard 1.4: Children express themselves through and develop an appreciation of the visual arts (e.g., painting, sculpting, and drawing).***Preschool Teaching Practices***

Effective preschool teachers:

- Provide children with access to a variety of developmentally appropriate art materials (e.g., crayons, paint, clay) and emphasize open-ended, process-oriented activities (e.g., the teacher provides children with watercolor paints, paper, and brushes and encourages them to paint rather than to all make a dinosaur puppet with the same materials).
- Plan art activities that extend children’s understanding of art techniques and art media (e.g., demonstrate how to roll a coil out of clay or how to use the side of a crayon to make a rubbing).
- Introduce children to vocabulary used in the visual arts (e.g., line, color, shape, sculpture, collage) during hands-on activities and explorations (not just during teacher-directed large-group time).
- Facilitate firsthand experiences that encourage children to develop art concepts and art expression (e.g., going outside to observe and draw a tree during each season).
- Extend children’s use of art tools by asking questions during activities (e.g., when a child is using a marker to create squiggly lines, “What other kinds of lines can you invent?”).
- Use children’s work as a springboard to explore and discuss concepts individually and in small groups (e.g., highlighting patterns, helping children problem-solve how to modify a sculpture so that it stands up).
- Help a child who is stuck break a task into steps (e.g., if the child says, “I don’t know how to draw a puppy,” ask, “What part would you like to start with first? The head? The body?” and then guide the child with an appropriate shape).
- Develop a visual reference library (e.g., photos, museum postcards and prints, books, calendar art, Websites, videos) or provide actual objects that children can refer to for more accurate representation (and as a way to avoid imposing adult solutions on or drawing for the child).
- Make specific, nonjudgmental observations about the qualities of children’s work (e.g., “I see you used long, thin lines for the leaves in your painting.” instead of “I like the pink flower you painted; it’s pretty.”).
- Observe and encourage children’s approaches to learning during the process of creation, including initiative, curiosity, problem-solving, and especially persistence (e.g., “You worked so carefully for a long time to figure out how to make a print without smearing the paint.”).
- Connect the visual arts to curriculum themes, other content areas, and domains, including fine-motor skills and eye-hand coordination.
- Expose children to the visual arts from their own communities as well as from different cultures, and introduce different types of artists (e.g., illustrators, mural artists, sculptors, painters, architects, photographers).

- Create an environment that is conducive to creativity by rotating and introducing new materials regularly, making materials easily accessible, keeping them organized, and minimizing commercially purchased decorations.
- Display children’s artwork at eye level, accompanied by children’s explanations about their work.
- Change displays frequently, allowing children to choose artwork for display in the classroom, in the school, or for a project (e.g., a personal book, a class book, or a portfolio).
- Encourage children to react to works of art and to reflect on art experiences (e.g., by encouraging a variety of responses to questions such as, “How many things can you think of that are made from clay?” or “What shapes do you see in this painting?”).
- Provide storage space for art projects that children work on over time so that they can revisit and reflect on their work, and if desired, revise or make changes.
- Model the safe and appropriate use and care of art materials and tools.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
1.4.1	Demonstrate the safe and appropriate use and care of art materials and tools.	1.3.P.D.1
1.4.2	Create two- and three-dimensional works of art while exploring color, line, shape, form, texture, and space.	1.3.P.D.2
1.4.3	Use vocabulary to describe various art forms (e.g., photographs, sculpture), artists (e.g. illustrator, sculptor, photographer) and elements in the visual arts.	1.3.P.D.3
1.4.4	Demonstrate a growing ability to represent experiences, thoughts, and ideas through a variety of age-appropriate materials and visual art media using memory, observation, and imagination.	1.3.P.D.4
1.4.5	Demonstrate planning, persistence, and problem-solving skills while working independently, or with others, during the creative process.	1.3.P.D.5
1.4.6	Create more recognizable representations as eye-hand coordination and fine-motor skills develop.	1.3.P.D.6
1.4.7	Describe feelings and reactions and make increasingly thoughtful observations in response to a variety of culturally diverse works of art and objects in the everyday world.	1.4.P.A.4

HEALTH, SAFETY, AND PHYSICAL EDUCATION

Introduction

Health, safety, and physical education in the preschool classroom encourage children's sense of self and support their emerging independence. Physical development impacts how children navigate the physical environment. Therefore, the preschool environment should be organized to support both indoor and outdoor activities that maximize each child's opportunities to develop gross- and fine-motor skills as well as health and safety awareness. Teachers should provide a wide range of concrete, developmentally appropriate, indoor and outdoor experiences each day to assist in the development of each child, including planned and spontaneous interactions promoting healthy habits that enhance lifelong well-being.

There are four preschool health, safety, and physical education standards:

Standard 2.1: Children develop self-help and personal hygiene skills.

Standard 2.2: Children begin to develop the knowledge and skills necessary to make nutritious food choices.

Standard 2.3: Children begin to develop an awareness of potential hazards in their environment.

Standard 2.4: Children develop competence and confidence in activities that require gross- and fine-motor skills.

Each of these four standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 2.1: Children develop self-help and personal hygiene skills.

Preschool Teaching Practices

Effective preschool teachers:

- Explain how germs are spread and instruct children in techniques to limit the spread of infection (e.g., there are germs on our drinking glasses, which is why we don't share drinks).
- Model appropriate hand-washing and supervise children's hand-washing (e.g., before and after meals, after toileting, after blowing their noses, after messy play).
- Promote the habits of regular tooth-brushing and bathing.
- Provide opportunities for children to pour and serve themselves and others, using a variety of appropriately sized utensils, during meal and snack time.
- Follow consistent routines regarding washing hands and utensils before and after preparing food and eating.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
2.1.1	Develop an awareness of healthy habits (e.g., use clean tissues, wash hands, handle food hygienically, brush teeth, and dress appropriately for the weather).	2.1.P.A.1
2.1.2	Demonstrate emerging self-help skills (e.g., developing independence when pouring, serving, and using utensils and when dressing and brushing teeth).	2.1.P.A.2

Standard 2.2: Children begin to develop the knowledge and skills necessary to make nutritious food choices.

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for children to experience a variety of nutritious food choices.
- Encourage families to share foods common to their cultures.
- Make learning materials and activities (e.g., books, play food, food guide pyramid for young children, cooking experiences) available to reinforce nutritious food choices.
- Inform parents about nutritious food choices (e.g., parent conferences, family nights, newsletters) to extend and reinforce children’s classroom learning.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
2.2.1	Explore foods and food groups (e.g., compare and contrast foods representative of various cultures by taste, color, texture, smell, and shape).	2.1.P.B.1
2.2.2	Develop awareness of nutritious food choices (e.g., participate in classroom cooking activities, hold conversations with knowledgeable adults about daily nutritious meal and snack offerings).	2.1.P.B.2

Standard 2.3: Children begin to develop an awareness of potential hazards in their environment.

Preschool Teaching Practices

Effective preschool teachers:

- Monitor the indoor and outdoor environment daily to ensure it is safe and hazard-free.
- Ensure that chemicals, medications, and other hazardous materials are appropriately stored and locked away from children.
- Incorporate information about potential hazards into the curriculum (e.g., using seat belts and car seats, crossing the street safely, staying away from strangers, recognizing the poison symbol).
- Make a mural or chart of things that are and are not safe to touch.
- Practice emergency evacuation procedures with the children.
- Invite community representatives of health, fire, and police departments to visit the class to teach about how to follow health and safety precautions.
- Promote children’s understanding of safety within the context of everyday routines (e.g., clean up spills to prevent falling), as well as through intentionally planned activities (e.g., provide books, set up streets and crosswalks in the classroom to practice safety, role-play safe play behavior in various situations).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
2.3.1	Use safe practices indoors and out (e.g., wear bike helmets, walk in the classroom, understand how to participate in emergency drills, and understand why car seats and seat belts are used).	2.1.P.D.1
2.3.2	Develop an awareness of warning symbols and their meaning (e.g., red light, stop sign, poison symbol, etc.).	2.1.P.D.2
2.3.3	Identify community helpers who assist in maintaining a safe environment.	2.1.P.D.3
2.3.4	Know how to dial 911 for help.	2.1.P.D.4

Standard 2.4: Children develop competence and confidence in activities that require gross- and fine-motor skills.

Preschool Teaching Practices

Effective preschool teachers:

- Facilitate activities that promote specific movement skills (e.g., crawling through a play tunnel, moving around the classroom without bumping into one another, jumping from a block and landing securely on two feet).
- Guide and support children in the development of gross-motor skills (e.g., starting, stopping, turning, leaping, marching).
- Provide classroom learning centers stocked with a wide variety of materials that promote fine-motor skills (e.g., puzzles, pegs and peg boards, zippers, snaps, buttons, clay).
- Plan individual and small-group activities and materials that promote the development of gross- and fine-motor skills (e.g., movement games, dancing, and outdoor play; large tongs for picking up and sorting items; tools for working with clay; cutting materials with a wide range of resistance for cutting such items as tissue paper, wall paper, fabric, and cardboard).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
2.4.1	Develop and refine gross-motor skills (e.g., hopping, galloping, jumping, running, and marching).	2.5.P.A.1
2.4.2	Develop and refine fine-motor skills (e.g., complete gradually more complex puzzles, use smaller-sized manipulatives during play, and use a variety of writing instruments in a conventional matter).	2.5.P.A.2
2.4.3	Use objects and props to develop spatial and coordination skills (e.g., throw and catch balls and Frisbees, twirl a hula-hoop about the hips, walk a balance beam, lace different sized beads, and button and unbutton).	2.5.P.A.3

ENGLISH LANGUAGE ARTS

Introduction

The updated and aligned preschool standards provide teachers with a common platform for teaching and learning in English Language Arts (ELA) from preschool through 3rd grade and include emergent reading, emergent writing, listening and speaking, foundational skills and language. The ELA preschool standards are grounded in a strong theoretical framework for delivering high quality educational experiences to young children with sample teaching practices and expected learner outcomes.

ELA preschool standards and teacher practices are to be used within a context of the multiple domains of learning and are focused on the development of the “whole child”, including their Mathematics Skills, Social Skills, Physical Development, and Approaches to Learning, among other areas. They are not meant to be isolated into a single domain of learning or within a segmented part of the day. ELA teacher practices are intentionally embedded in an integrated and play-based approach to learning. All preschool environments, activities, and interactions should be designed to encourage speaking and listening, literacy exploration, and emergent reading and writing activities.

The ELA standards are expected learner outcomes for children when they exit a four-year-old program. Children will need time and exposure to the appropriate literacy environments and interactions to reach the learner outcomes.

Preschool teachers are responsible for knowing the entire developmental continuum in language and literacy for the young child and require thorough professional development on a state-approved curriculum and assessment model in order to meet the language and literacy needs of all children. Guidance for preschool environments and teaching and assessment models is available on the New Jersey Division of Early Childhood website:
<http://www.nj.gov/education/ece/guide/impguidelines.pdf>

Like the standards for K-3, the preschool ELA standards have six strands: ***Reading Literature, Reading Informational Text, Reading Foundations, Writing, Speaking and Listening and Language***. These six strands are followed by the Sub-Headings (e.g., **Key Ideas and Details**). The Sub-Headings are followed by a set of grade and topic- specific standards. The ELA standards framework is consistent throughout PK-3 and provides a common language for articulation across the grades. For a further explanation of how to read the Common Core ELA standards, please see:
<http://www.corestandards.org/ELA-Literacy/introduction/how-to-read-the-standards>

The following preschool document is organized by identifying the strand (e.g., ***Reading Literature***), the Sub-Heading (e.g., **Key Ideas and Details**), then offers sample preschool teaching practices followed by the accompanying preschool standards with the P-12 Database numbers (e.g., RL.PK.1).

PRESCHOOL ENGLISH LANGUAGE ARTS STRANDS AND SUB-HEADINGS**Reading: Literature**

- **Key Ideas and Details**
- **Craft and Structure**
- **Integration of Knowledge and Ideas**
- **Range and Level of Complexity**

Reading: Informational Text

- **Key Ideas and Details**
- **Craft and Structure**
- **Integration of Knowledge and Ideas**
- **Range and Level of Complexity**

Reading: Foundational Skills*

- Print Concepts
- Phonological Awareness
- Phonics and Word Recognition
- Fluency

Writing

- **Text Type and Purposes**
- **Production and Distribution of Writing**
- **Research to Build Knowledge**
- **Range of Writing**

Speaking and Listening

- **Comprehension and Collaboration**
- **Presentation of Knowledge and Ideas**

Language

- **Conventions of Standard English**
- **Knowledge of Language**
- **Vocabulary Acquisition and Use**

*K-12 Sub-Headings are in bold

Reading Literature**Key Ideas and Details*****Preschool Teaching Practices***

Effective preschool teachers:

- Create cozy, comfortable reading areas with a variety of age-appropriate printed materials (e.g., at least 15- 20 books in a display case, changed every two weeks, along with magazines, catalogs, newspapers).
- Read aloud to each child individually and in small and large groups two or more times a day in different settings using age-appropriate high-quality books and texts (e.g., picture storybooks including the Caldecott medal books, picture information books, traditional literature including folktales, fantasy, poetry and rhyming books, big books, books that are predictable and repetitive, culturally diverse books and an assortment of alphabet books and number books).
- Organize routines of the day with children to ensure that children are aware of their opportunities for read alouds with the teacher in whole, small group or one-on-one as well as times of the day that they can use the classroom library and self- select books for their reading enjoyment.
- Prepare children for listening to a new book during read alouds by building on background knowledge (e.g., make appropriate connections to children’s work and interests, predict topic by looking at front cover illustration, look at a few illustrations throughout the book to build anticipation, identify title, author, and illustrator and the roles of each).
- Read aloud the entire book with few interruptions and use motivating expression appropriate to story line.
- Read and reread favorite books followed with a discussion guided by the particular objectives for reading the book with higher level questioning techniques (e.g., What was the problem? How did he solve the problem? Did he learn something new or a lesson? Tell me more.). Refer back to story to clarify difficult parts.
- Follow up a read aloud and discussion with a range of auditory, visual, movement and role play opportunities in multiple contexts throughout the day to guide beginning understanding of main events, topics, setting, and characters (e.g., model story retelling and role-playing with props and dialogue in dramatic play, sing songs related to stories, use flannel board and puppets to reenact characters and plot, prepare recipes related to stories, read other books during the day related to stories).

- Place books to extend center play in different centers (e.g., a book about bridges in the block area).
- Create displays that focus on classroom studies and projects (e.g. during a project on “How Plants Grow” a bookcase was dedicated to children’s individual pots of growing plants, samples of garden tools that could be used in dramatic play, children’s fiction and non-fiction books on growing plants, a class book titled *Growing Grass*, children’s science journals that included week-by-week observational drawings of potted plants and an experience story with shared writing and pictures by the teacher and the children titled “Our Trip to the Garden Store”.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RL.PK.1	With prompting and support, ask and answer key elements in a familiar story or poem.	RL.K.1
RL.PK.2	With prompting and support, retell familiar stories or poems.	RL.K.2
RL.PK.3	With prompting and support, identify characters, settings, and major events in a familiar story.	RL.K.3

Craft and Structure

Preschool Teaching Practices

Effective preschool teachers:

- Embed ongoing strategies to clarify new word meanings during read alouds, small group activities, conversations, play, or writing (e.g., use props, gestures and voice to emphasize meaning, pair a similar and familiar word to define the unfamiliar word, point to the illustration that gives clues to new word).
- Encourage children’s questions about unfamiliar words and their meanings.
- Model and encourage use of new and interesting words read in books by using new words frequently throughout the day in conversations, songs, rhymes, activities, and discussions.
- Compare and contrast examples of favorite and familiar story or poetry books by identifying each type as either a story or a poetry book and discuss simple characteristics

of each. When children are familiar with a few characteristics of each genre, discuss how the examples (story and poetry book) are alike and how they are different. Begin to let children identify the genre (story or poetry) on their own.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RL.PK.4	With prompting and support, ask and answer questions about unfamiliar words in a story or poem read aloud.	RL.K.4
RL.PK.5	Recognize common types of literature (storybooks and poetry books).	RL.K.5
RL.PK.6	With prompting and support, identify the role of author and illustrator in telling the story.	RL.K.6

Integration of Knowledge and Ideas

Preschool Teaching Practices

Effective preschool teachers:

- Follow up a discussion of illustrations in favorite books with offering similar art materials at the art center (e.g., after reading *Kitten’s Full Moon* [Henkes, ‘06] make the connection between the work of the artist/ illustrator and the child’s own art work by offering black and white pastels with black markers to explore night drawings at the art center).
- Connect the role of author and illustrator of a book read aloud to the work of the child in the writing and art centers (e.g., after reading *A Snowy Day* [Keats, ‘64] “There are many blank books and interesting papers at the writing table. Let’s look at the winter books on display at the writing center and look closely at the illustrations and see how we can draw and write about winter too.”).
- Compare and contrast the major elements of an adventure of two familiar storybook characters. Discuss how the main characters or their adventures are alike and how they are different (e.g., In the books *My No, No, No Day* [Patterson, ‘12] and *Alexander and the Terrible, Horrible, No Good, Very Bad Day* [Viorst, ‘72] How are the adventures in these two stories similar? How is the day that Alexander is having like Bella’s day? How is Alexander’s day different?”

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RL.PK.7	With prompting and support, using a familiar storybook, tell how the illustrations support the story.	RL.K.7
RL.PK.8	(Not applicable to literature)	RL.K.8
RL.PK.9	With prompting and support using a familiar storybook, tell how adventures and experiences of characters are alike and how they are different.	RL.K.9

Range of Reading and Level of Text Complexity***Preschool Teaching Practices***

Effective preschool teachers:

- Select high quality literature that, when read aloud, engages individual, small groups or large groups of children. Books should be selected based on a child’s familiarity with the topic, background knowledge, interest, complexity of sentences, difficulty of vocabulary, and length of the story.
 - Provide preschoolers who have had minimal exposure to reading, shared reading and read alouds, short books of high interest that include language, words, and topics with engaging rhythm or rhyme, high predictability and simple illustrations in order to develop the willingness and motivation to listen to stories (e.g., *Brown Bear, Brown Bear* [Carle, ‘70]).
 - As children gain experience with book read alouds, add more challenging language, length, illustrations, and appropriate topics that are not immediately present or familiar (*Blackout* [Rocco, ‘12]).
- Invite children’s participation in rich, supportive conversations about stories read to increase engagement and provide the requisite skills and background information to comprehend the story.
 - Encourage back and forth exchanges, ask open-ended questions, scaffold, repeat and expand vocabulary (e.g., after reading *The Mitten* [Brett, ‘89], “Yes, his winter mittens are many different colors. They are multi-colored.”).
 - Encourage problem solving, comparisons, and connections that can be related to personal experience (e.g., after reading *Olivia and the Missing Toy*, [Falconer, ‘03], “What is the biggest challenge or the problem Olivia is having now? How do you think she’ll solve the problem? Have you ever had a day like Olivia’s?”).

- Analyze illustrations and make predictions (e.g., “I see a clue in the picture that helps me guess what will happen on the next page. Do you see it?”).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RL.PK.10	Actively participate in read aloud experiences using age appropriate literature in individual, small and large groups.	RL.K.10

Reading Informational Text

Key Ideas and Details

Preschool Teaching Practices

Effective preschool teachers:

- Compare and contrast favorite story books and favorite informational texts and discuss which book is fiction (e.g., tells a story) and which book is information (explains or shares real information).
- Integrate opportunities for read aloud experiences using both literature and informational texts throughout the day followed by rich discussions (e.g., morning circle, small group time, center-time, naptime, closing circle) to extend and make connections between key concepts in science, social studies, math, music, art, movement, and social and emotional development (e.g., “In our read aloud today, we read about earthworms. Last week we read many books about snakes. Who can tell me how an earthworm and a snake are similar? Yes, both the earthworm and the snake are long and squiggly and crawl on their stomachs”).
- Read and reread favorite informational texts. Give children hand-held props for unfamiliar words that prompt new information. During the follow-up discussion have children identify the name of their prop and an accompanying fact (e.g., from *The Tiny Seed*, [Carle, ‘00] children respond, “It’s a bean plant. First, you plant a bean seed in dirt so it grows. Then it grows beans.”).
- Model and encourage using new and interesting topical words from informational text throughout the day in conversations, songs, rhymes, activities and discussions.

- Encourage informational book discussions that includes questions, conversations and discussions about topical book information. Refer back to original text to cite evidence or to clarify difficult or new information.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RI.PK.1	With prompting and support, ask and answer questions about key elements in a familiar text.	RI.K.1
RI.PK.2	With prompting and support, recall important facts from a familiar text.	RI.K.2
RI.PK.3	With prompting and support, make a connection between pieces of essential information in a familiar text.	RI.K.3

Craft and Structure

Preschool Teaching Practices

Effective preschool teachers:

- Model and encourage questions about unfamiliar words in a text and point out context clues (e.g., “Great catch Abby! Abby always asks me when she hears an unfamiliar word that she doesn’t understand. Let’s look at the pictures and read the words again around the new word to see if we can find clues to help us understand the new word.”).
- Connect experiences with actual objects and props to identify positional phrases such as in back of, in front of, under, on, over, etc. Identify front and back of book when reading and begin to have children identify the front and back cover of books.
- Connect the role of author and illustrator (or photographer) of children’s favorite informational books to children’s writing activities (e.g., after reading *Colors Everywhere* [Hoban ‘95] children discuss Tana Hoban’s role of author and photographer/illustrator. Following the discussion, children took photographs of familiar school objects to create an informational class book *Colors at School*).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RI.PK.4	With prompting and support, ask and answer questions about unfamiliar words in informational text.	RI.K.4
RI.PK.5	Identify the front and back cover of a book.	RI.K.5
RI.PK.6	With prompting and support, identify the role of author and illustrator in presenting ideas in informational text.	RI.K.6

Integration of Knowledge and Ideas***Preschool Teaching Practices***

Effective preschool teachers:

- Read and reread several informational books on topics of interest to children. Compare and contrast books and illustrations (e.g., “Both books *My Big Truck Book* [Priddy, ‘11] and *Trucks and Cars and Things that Go* [Scarry, ‘98] are books about cars and trucks. Mr. Priddy’s book uses pictures or illustrations from photographs for his book. These pictures are like the photographs we take. Mr. Scarry’s book has pictures or illustrations that are painted. These illustrations are like the paintings we make at the easel.”).
- Create information class books and discuss how each information book is alike or different than other information books in the classroom library. Discuss how pictures or illustrations in information books describe the writer’s words. Connect classroom library books to children’s book-making. With teacher support, ensure that children have an opportunity to write (dictation, drawings, scribble-writing, letter-strings, or invented spellings) and illustrate (drawings, paintings, photographs) topics of their own choosing for class books.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RI.PK.7	With prompting and support, tell how the illustrations support the text (information or topic) in informational text.	RI.K.7
RI.PK.8	(Begins in kindergarten)	RI.K.8

Range of Reading and Level of Text Complexity

Preschool Teaching Practices

Effective preschool teachers:

- Select high quality informational text and books that engage individual or groups of children at their level for read alouds. Books should be selected based on a child’s need and familiarity with the topic, background knowledge, interest, complexity of sentences, difficulty of vocabulary, and length of the story.
 - Provide children who have had minimal exposure to books or read aloud experiences, first experiences with high interest topics that include engaging photographs and illustrations in order to develop the willingness and motivation to attend to the topic. Adjust language, length of text, and interactions between child and text if needed.
 - As children gain experience with preschool informational books, continue to add more challenging topics, language, and length including topics that are not immediately present or familiar.
- Invite children’s participation in rich discussions of informational books to guide comprehension and make connections to a topic (e.g., after reading *What Lives in a Shell?* [Zoehfeld, ‘03] “Why does the hermit crab have a shell? Does their shell grow with their body? How are the hermit crabs in the classroom aquarium like the snails Ms. Green brought in today? How are they different?”).
- Stock new and interesting manipulatives and props throughout centers to extend concepts from informational books read aloud. Demonstrate and role-play their use (e.g. after reading and discussing *26 Letters and 100 Cents* [Hoban, ‘87], children match alphabet props to printed letters in the fine motor/manipulatives center).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RI.PK.10	Actively participate in read aloud experiences using age appropriate information books individually and in small and large groups.	RI.K.10

Reading: Foundational Skills**Print Concepts*****Preschool Teaching Practices***

Effective preschool teachers:

- Draw children’s attention to the functions and features of print during read aloud discussions, small group activities, and incidentally throughout the day (e.g., point out that the person whose name is on the helper chart starts with an uppercase letter “R,” or during a read aloud discussion point out that the words in the title of the book are separated by spaces).
- Display printed labels and other print examples throughout the classroom environment that has meaning to children during their daily activities. Draw attention to the print (e.g., center labels, rebus labels and stories, picture recipes, traffic signs) and encourage activities and interactions where children interact with the displayed print (e.g. “Yes, the label in the hat has the word for Tyrek’s name. Can you put it in Tyrek’s cubby please?”).
- Ensure authentic opportunities for reading and rereading environmental print during the day and while reading track the print with finger to ensure understanding of left to right and top to bottom progression.
- Display relevant print and writing examples at children’s eye level.
- Provide relevant, topical literacy props that include print throughout the classroom (e.g., empty food and household containers, menus, recipe cards, phone books, order pads, signs and labels, office forms).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RF.PK.1,a,b,c,d	<p>Begin to demonstrate understanding of basic features of print.</p> <ul style="list-style-type: none"> a) Follow words from left to right, top to bottom, page by page. b) Recognize that spoken words can be written and read. c) Recognize that words are separated by spaces. d) Recognize and name many upper and lower case letters of the alphabet. 	RF.K.1a,b,c,d

Phonological Awareness***Preschool Teaching Practices***

Effective preschool teachers:

- Use rhythm sticks, claps, snaps, or body motions to segment the syllables in children’s names and other words.
- Engage children in activities, read storybooks and poems, sing songs and chants that have repetitive patterns, alliterations, rhymes, and refrains that are engaging and playful (e.g., sing, “Liz, Liz, bo-biz, banana-fana fo-fiz, fee-fi-mo-miz, Liz! Liz can get her coat.”).
- Read and reread rhyming books and texts to children. Encourage children to make up their own rhymes and alliterations.
- Draw children’s attention to the sounds children hear in words (e.g., by asking for the children whose names start with the “m,m,m...” “M” sound to go wash their hands for snack).
- Provide activities where children sound match (e.g., show a picture of snake, a dog, or a house and ask children which one starts with the “s-s-s...” “S” sound).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RF.PK.2,a,b,c,d,e	Demonstrate understanding of spoken words and begin to understand syllables and sounds (phonemes). <ul style="list-style-type: none"> a) Recognize and produce simple rhyming words. b) Segment syllables in spoken words by clapping out the number of syllables. c) Identify many initial sounds of familiar words. d) (Begins in kindergarten) e) (Begins in kindergarten) 	RF.K.2,a,b,c,d,e

Phonics and Word Recognition***Preschool Teaching Practices***

Effective preschool teachers:

- Integrate activities throughout the day that draw attention to the printed letter and the sounds letters make (e.g., at the writing center, “I see you and Sabir pointing to the letters that your names begin with on the alphabet chart. Can you also make the sound for the first letter ‘S’ in your name? Yes, S-s-s-sabir.”).
- Encourage participation with materials that promote identification of the letters of the alphabet including alphabet books, charts, blocks, games, and puzzles.
- Provide name game activities (e.g., recognize child’s name with and without graphic support, differentiate among names, visually match specific letters) throughout the day for children to learn to recognize their names and the letters in their name.
- Find opportunities to read and write children’s names daily. While writing the name, spell each letter aloud and invite children to read the name and spell each letter with you.
- Encourage children to discuss and interact with functional print materials (labels, signs, directions with pictures) and child-generated writing samples (class books, signs on block buildings, notes to teacher, labels with pictures on shelves and drawings that incorporate children’s writing).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
RF.PK.3,a,b,c,d	Demonstrate an understanding of beginning phonics and word skills. <ol style="list-style-type: none"> Associates many letters (consonants and vowels as ready) with their names and their most frequent sounds. (Begins in kindergarten) Recognize their name in print as well as other familiar print in the environment. (Begins in kindergarten) 	RF.K.3a,b,c,d

Fluency***Preschool Teaching Practices***

Effective preschool teachers:

- Share reading and rereading favorite books giving children the opportunity to read along the parts of the story they remember. Choose some books based on the use of repeated phrases, refrains, and strong patterns and predictability so children can participate with the reading.
- Engage children in conversations about their favorite books and texts. Ensure that individual children's favorite topics are well represented in the classroom library (e.g., books about trains, sharks, animals). Update books frequently and use information about individual preferences to extend the reader's engagement to new and more challenging literature and informational text.
- Ensure ample time for individual and group use of the library and books (e.g., before the day begins, at center time, before, during or after naps, after outdoor play, before and after transitions).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
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RF.PK.4 Begin to engage in a variety of texts with purpose and understanding.

RF.K.4

WRITING

Text Types and Purposes

Preschool Teaching Practices

Effective preschool teachers:

- Model teacher writing in a variety of genres throughout the day and encourage children’s writing (e.g., guide children to write their names on their work, share writing lists, messages, charts, forms, signage, labels, invitations, letters, and model pretend roles in dramatic play activities that include writing such as a doctor in the doctor’s office charting patient health information, etc.).
- Provide shared writing opportunities (e.g., the children volunteer the ideas and letters or words and the teacher elaborates on the ideas and writes the words). Display interactive examples of writing (including pictures) at children’s eye level for intentional follow-up activities.
- Take dictation for a child by writing exactly what the child says and making sure the child can see what you are writing. Read the dictation back to the child tracking their words with a finger.
- Encourage individual and small groups of children’s writing at the writing center and other centers independently or with teacher support (e.g., provide exciting writing and book making materials, provide examples at the writing center of printed letters, words, names, and phrases that children frequently use in their writing, encourage writing notes to a family member, model or share writing signs for the block and manipulatives centers, model and support recording and making observations at the science center, model and encourage writing numbers at the math center and during other activities).
- Model the process of classroom bookmaking by using different sizes and shapes of paper, varied and interesting colors, etc. Ensure exciting bookmaking materials are readily available at the writing and art centers. Make classroom book topics simple and predictable. Frequently share classroom books and display in library and throughout the room. Have children share or buddy-read with a partner and take a copy home to share or “read” with families.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
W.PK.1	Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share a preference or opinion during play or other activities.	W.K.1
W.PK.2	Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share information during play or other activities.	W.K.2
W.PK.3	(Begins in kindergarten)	W.K.3

Production and Distribution of Writing***Preschool Teaching Practices***

Effective preschool teachers:

- Encourage children to share their writing or teacher dictation at all developmental levels with a partner, small-group, class and family.
- Respond positively to all writing efforts at all levels (e.g., dictation, scribble-writing, letter strings, and invented spellings) and display children’s writing samples on the wall at children’s eye level.
- Provide a variety of writing tools (e.g., pencils, crayons, chalk, markers, and keyboards) and surfaces (e.g., paper, writing easels, and computer surfaces) throughout the classroom.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
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W.PK.4	(Begins in grade 3)	W.K.4
W.PK.5	With guidance and support, share a drawing with dictation, scribble-writing, letter-strings, or invented spelling to describe an event real or imagined.	W.K.5
W.PK.6	With guidance and support, use digital tools to express ideas (e.g., taking a picture of a block structure to document or express ideas, etc.).	W.K.6

Research to Build and Present Knowledge

Preschool Teaching Practices

Effective preschool teachers:

- Expand, elaborate, and guide children’s ideas and interests to create projects or studies where children ask questions, brainstorm, problem solve, plan, learn new vocabulary, investigate a topic, and produce documentation (e.g., after an investigation where children and teacher researched the topic of a class pet by visiting a pet store, the library, and children’s sites online, the classroom documented their observations and experiences by producing *Bubbles the Betta* class book. The children drew pictures and with teacher assistance and support “wrote” about their experience and shared “reading” the book with the other preschool classrooms and their families.).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
W.PK.7	With guidance and support, participate in shared research and shared writing projects.	W.K.7
W.PK.8	With guidance and support, recall information from experience or familiar topic to answer a question.	W.K.8
W.PK.9	(Begins in grade 4)	W.K.9

Speaking and Listening

Comprehension and Collaboration

Preschool Teaching Practices

Effective preschool teachers:

- Read and reread favorite books and texts so that children can become familiar enough with the story or text to be successful in identifying important information with some detail (e.g., after reading and rereading *A Sick Day for Amos McGee* [Stead '11], the children were able to discuss the questions who, what, when, where, and why with simple detail and were able to connect experiences in the story to their own experiences).
- Create a climate of discourse that values conversations, dialogue, questions, and reflections, including “wait-time” (e.g., at least once a day, the teacher has personal conversations with each child to build relationships and encourage multiple back-and-forth exchanges).
- Provide activities and props throughout the classroom that encourage interactions, conversations and support connections to concepts learned (e.g., in dramatic play, the “auto service shop” provides children the opportunity ask and answer questions about pretend roles, use topic vocabulary, “write” service orders at various developmental levels, and creatively act-out roles).
- Revisit classroom rules that support classroom discussions (e.g., “Boys and girls, we have a classroom rule about one person talking at a time. Why did we make that rule?”).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
SL.PK.1.a,b	Participate in conversations and interactions with peers and adults individually and in small and large groups. <ol style="list-style-type: none"> a) Follow-agreed upon rules for discussions during group interactions. b) Continue a conversation through several back and forth exchanges. 	SL.K.1.a,b

SL.PK.2	Ask and answer questions about a text or other information read aloud or presented orally.	SL.K.2
SL.PK.3	Ask and answer questions to seek help, get information, or follow directions.	SL.K.3

Presentation of Knowledge and Ideas

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for discussions that include details of familiar people, places, and things and events with individual children, and in small and large-groups (e.g., after the read aloud *No, David!* [Shannon ‘98], children discuss with detail each of David’s experiences and why David’s mother said “No, David!”).
- Offer individual, small and large group opportunities throughout the day to express and share activities, ideas, feelings, or other information in a classroom climate that values discourse (e.g., discussions, project development, brain storming and predicting, book conversations, discussing and learning names for feelings, conflict resolution and show and tell).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
SL.PK.4	Begin to describe familiar people, places, things, and events and sometimes with detail.	SL.K.4
SL.PK.5	Use drawings or visual displays to add to descriptions to provide additional detail.	SL.K.5

SL.PK.6

With guidance and support, speak audibly and express thoughts, feelings, and ideas.

SL.K.6

LANGUAGE

Conventions of Standard English

Preschool Teaching Practices

Effective preschool teachers:

- Respond to children using their words (“reflect back”) with the correct plural forms, tenses, prepositions and in complete sentences. Also, add new and rich vocabulary to the response when appropriate.
- Ensure that children have interesting opportunities to practice language using plural forms, prepositions, complete sentences, and question sentences by using props and toys in engaging individual, small and large-group opportunities (e.g., the use of props to identify positional phrases such as in back of, in front of, under, on).
- Provide individual support to each child to write their name on their work throughout the day. Allow children who need it ample time to move through the developmental stages of writing (e.g., teacher dictation, scribble-writing, letter-like forms, a combination of upper and lowercase letters).
- Encourage children to use their emergent writing skills independently or with teacher support by providing ongoing and motivating up-to-date materials and activities at the writing center based on individual and group interests including written models of the alphabet and printed words with pictures that children currently use and request for writing projects (e.g., “Mom,” “no,” “love” “Save!”). Support children during the writing process by referring to the letter construction chart and prompting with letter construction and letter sounds when needed.
- Build oral language and writing skills through read aloud extension activities in classroom centers (e.g., after reading a collection of *Thomas and Friends* [Awdry, 1975] brainstorm ideas for props for a train station in the dramatic play area. Share writing a list with children of materials and supplies needed).

- Draw children’s attention to examples of written words with pictures at eye level including children’s drawings and writing, teacher and child-generated writing, class-generated books that exemplify varied purposes of writing and provide written models for children to refer to if needed during writing activities.

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
L.PK.1,a,b,c,d,e,f	<p>Begin to understand the conventions of standard English grammar when speaking during interactions and activities.</p> <ul style="list-style-type: none"> a) Print many alphabet letters. b) Use frequently occurring nouns and verbs. c) Form regular plural nouns. d) Understand and use question words (e.g., who, what, where, when, why, how). e) Use frequently occurring prepositions (e.g., to, from, in, out, on, off, for, by, with). f) Begin to speak in complete sentences. g) Understands and can follow simple multi-step directions. 	L.K.1,a,b,c,d,e,f
L.PK.2,a,b,c,d	<p>Begin to understand the simple conventions of standard English grammar during reading and writing experiences throughout the day.</p> <ul style="list-style-type: none"> a) (Begins in kindergarten) b) (Begins in kindergarten) c) Attempt to write a letter or letters by using scribble-writing, letter-like forms, letter-strings, and invented spelling during writing activities throughout the day. d) (Begins in kindergarten) 	L.K.2,a,b,c,d
L.PK.3	(Begins in grade 2)	

Vocabulary Acquisition and Use

Preschool Teaching Practices

Effective preschool teachers:

- Use new vocabulary introduced in conversations, reading, projects and studies and other activities in context multiple times throughout the day.
- Match visual and auditory prompts with gestures to reinforce the meaning of a word or phrase (e.g., there is an *enormous din* in here [hands over ears and eyes closed tight]. It is so noisy!).
- Model excitement and the playful use of new words (e.g., “What the frog said was *ridiculous!* The toad had never heard of anything so *preposterous.*”).
- Sort words, props, topics, materials, etc. into categories (e.g., “Gallop is an action word like crawl, walk, or jump. It is the movement that a horse makes when it wants to go fast. Let me show you how to gallop.”).
- Use props and other visuals with oral language to compare and contrast and describe simple opposites (e.g., colored cards that illustrate black and white, objects that are big and little, placements on wall that are high and low, voices that are loud and soft).
- Make connections between a child’s experience and the meaning of new vocabulary and how it is used (e.g., “This is my very loud voice that I use outside and this is my very quiet voice that I use during rest time.”).
- Provide opportunities for finding out the meaning of words and phrases through connecting information (e.g., after a read aloud, “Looking at these two pages in the book *Anansi the Spider* [McDermott ‘73] what do the words ‘he fell into trouble’ mean? What happens to Anansi on the next few pages to help us understand what ‘he fell into trouble’ means?”).

Preschool Learning Outcomes

Children will:

Preschool Number	<u>Preschool Standards</u>	Kindergarten Number
L.PK.4,a,b	<p>Begin to determine the meaning of new words and phrases introduced through preschool reading and content.</p> <p>a) With guidance and support, generate words that are similar in meaning (e.g., rock/stone,</p>	L.K.4,a,b

happy/glad).

b) (Begins in kindergarten)

L.PK.5,a,b,c,d	With guidance and support, explore word relationships. a) Begin to sort familiar objects (e.g., sort a collection of plastic animals into groups: dogs, tigers, and bears). b) Begin to understand opposites of simple and familiar words. c) Identify real-life connections between words and their use (e.g., “Tell me the name of a place in the classroom that is noisy or quiet.”). d) (Begins in kindergarten)	L.K.5,a,b,c,d
L.PK.6	Use words and phrases acquired through conversations, activities and read alouds.	L.PK.6

APPROACHES TO LEARNING

Introduction

Approaches to learning, such as initiative and persistence, are behaviors and attitudes that show *how* children learn, not just *what* they learn. The National Education Goals Panel identified “Approaches Toward Learning” as one of five dimensions of school readiness for early learners along with physical development, social and emotional development, language development, and cognition.

The approaches to learning standards build on the preschool social emotional development standards and the New Jersey 21st Century Life and Careers standards, reflecting an understanding of what we know from recent studies and current brain development research about how children learn. Children with higher levels of attentiveness, task persistence, eagerness to learn, learning independence, flexibility, and organizational skills do better in both literacy and math at the end of the kindergarten school year, at the beginning of their first grade year, and even in later grades (Conn-Powers, 2006; McClelland, Acock, & Morrison, 2006).

The way a child approaches learning is a strong predictor of later success in school. School readiness includes the ability to tackle and persist at challenging or frustrating tasks with flexibility, follow directions, take risks, make and learn from mistakes, and work as a part of the group. Young children develop these skills by engaging in playful learning experiences, which strengthen cognitive capacities such as paying attention, remembering rules, and inhibiting impulses to achieve a larger goal (Tomlinson, 2012). Both child-initiated and teacher-guided play, along with other intentional teaching strategies, combine to support children’s approaches to learning (Epstein, 2007).

Environments for young children promote positive approaches to learning when they are carefully designed to embrace diverse learners by offering them many avenues for developing physical, social, emotional, and cognitive skills. For example, research shows that children who engage in complex forms of socio-dramatic play have greater language skills than non-players, better social skills, more empathy and imagination, and show greater self-regulation and higher levels of thinking (Miller, 2009).

Children develop positive approaches to learning within well-organized environments that offer independence, choice, predictable routines, and opportunities for social interactions in small group activities. Children’s engagement is deepened when materials and activities are relevant to their interests, offer the right level of challenge, and provide many options such as long term projects or studies, making it more likely that they will understand and remember relationships, concepts, and reach higher levels of mastery, especially with teacher support.

Teachers play an important role in nurturing positive approaches to learning. An important starting point is to develop caring and respectful relationships with children and their families. Children who feel valued and receive the message that they are capable learners become engaged

and excited about learning. When children are given ample time and support to deeply engage in developmentally appropriate, challenging learning experiences, they more easily master new skills, making rewards and other incentives to learn and behave unnecessary. The intentional teaching practices outlined in this document, such as listening, observing, providing specific feedback, asking thought-provoking questions, providing verbal and emotional support, encouraging effort and teamwork, modeling flexibility, noticing children’s interests, and helping them make connections, will provide teachers with strategies for reinforcing positive approaches to learning throughout the day.

There are four preschool standards for approaches to learning:

Standard 9.1 Children demonstrate initiative, engagement, and persistence.

Standard 9.2 Children show creativity and imagination.

Standard 9.3 Children identify and solve problems.

Standard 9.4 Children apply what they have learned to new situations.

Each of these four standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 9.1: Children demonstrate initiative, engagement, and persistence.

Preschool Teaching Practices

Effective preschool teachers:

- Listen closely, respond to, and take pleasure in children’s curiosity. Nurture children’s curiosity by modeling excitement and providing interesting hands-on experiences that motivate them to apply their developing skills and prior knowledge (e.g., “Jose, you and Nazeer found so many different kinds of leaves on the playground today! Let’s put them on the light table and have a closer look at the shapes and colors of each.”)
- Offer individual, small and large group opportunities throughout the day to express and share ideas and feelings, creating a climate of discourse that values conversations, dialogue, questions, and reflections (e.g., at least once a day, the teacher has personal conversations with each child to build relationships and encourage multiple back-and-forth exchanges about what children are learning).
- Are fully present with children, identifying and minimizing distractions that detract from working intentionally with individuals and small groups. Help children learn to wait while you are working with another child, and help children listen respectfully to

one another (e.g., “Let’s find something interesting for you to do while I help Anna with her problem. Then I’ll be able to concentrate on what you want to tell me.”)

- Engage children in prior planning but be flexible enough to change plans or modify an activity if children are not actively engaged. Gradually lengthen the time children are expected to remain engaged in activities or experiences, and guide children toward deeper levels of engagement (e.g., encourage children not just to spend more time looking at the leaves from the playground, but trying different ways to organize them).
- Help children focus their attention on relevant information while ignoring or filtering out irrelevant information. Play games in which children must listen carefully and follow more than one direction (e.g., “Simon says, stand on one foot and touch your nose”).
- Encourage children’s engagement in a task by specifically acknowledging their efforts (e.g., “You spent a long time mixing the right color”) rather than vaguely praising them (“good job”) or giving them rewards like stickers or prizes. When supporting children’s efforts, it is important to make sure the task is developmentally appropriate and “challenging but achievable.” Let children know that it is alright to invite other children to help them (e.g. Shayla and Riyad are working on a tangram puzzle together on the computer and having trouble finishing. They, ask Jaquan, the classroom tangram expert, if he could please help them.)
- Solicit children’s ideas about what to do and how to do it (e.g. “It’s raining outside. How will we need to dress so we can keep dry?” or “What can we do inside instead?”)
- Provide physical, verbal, or emotional support to a child who is unfocused or discouraged (e.g., sitting close to a child struggling to accomplish a task, acknowledging their frustration, and helping them figure out what to do). Honor the pace of every child, knowing that some children need more time to complete a task, and that there may be cultural differences in how children approach tasks.
- Provide children with time, space, and opportunities to make choices from among interesting materials and activities that are familiar and challenging. Rotate materials regularly to maintain children’s interest and to connect with children’s experiences and cultures. Provide extended periods of time to allow children to get deeply involved in learning experiences that they initiate or that build on class topics.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
9.1.1	Make plans and decisions to actively engage in learning (e.g., two children greet each other as	

they arrive to school and decide that they will finish counting all the bottle caps they collected during choice time.)

- 9.1.2** Show curiosity and initiative by choosing to explore a variety of activities and experiences with a willingness to try new challenges (e.g., choosing harder and harder puzzles).
- 9.1.3** Focus attention on tasks and experiences, despite interruptions or distractions (e.g., working hard on a drawing even when children nearby are playing a game).
- 9.1.4** Show persistence when faced with challenging tasks and uncertainty, seeking and accepting help when appropriate (e.g., saying to a friend, ‘This is hard. Can you help me figure it out?’).
- 9.1.5** Bring a teacher-directed or self-initiated task, activity or project to completion (e.g., showing the teacher, ‘Look—I finished it all by myself!’).

Standard 9.2: Children show creativity and imagination.

Preschool Teaching Practices

Effective preschool teachers:

- Model open-mindedness and flexibility by demonstrating that when you have new information, you sometimes change your mind or adjust your plans and that there may be more than one way to do things or to solve problems. Help children to generate alternatives and weigh the options (e.g., ‘‘Since we had a fire drill this morning, I didn’t have a chance to finish the story I was reading. Would you like me to finish reading the story during rest time today or should we finish it tomorrow?’’)
- Observe children closely in order to find ways to see, value, and extend children’s ideas (e.g., The teacher notices that while Xander is painting at the easel, he is telling a story about his picture. She listens as Xander narrates his painting and writes in her observation notes that Xander is painting a picture of his new baby sister. Using rich vocabulary, she reflects Xander’s language back to him and asks him clarifying questions.).
- Provide opportunities for imaginative play and creative storytelling. Read or write stories in which children change or make up their own endings. Take note when imaginative play is becoming more complex (e.g., children are taking on more diverse

roles and are using a wider variety of props or creating their own) and support children in extending their abstract/symbolic thinking.

- Support multiple means of creative expression. The visual arts (e.g., drawing, collage, painting, sculpture), the performing arts (e.g., puppets, music, dramatic play, and creative movement), writing (e.g., encouraging illustrations and developmental levels of writing to create books using different media and interesting sizes, shapes and colors of paper or technology) offer many opportunities for all children, regardless of their abilities, personal experiences, language and cultural background, to communicate what they feel, think, know, and understand. It is important to give children who still have limited verbal fluency—dual language learners or some children with disabilities—other ways of expressing their ideas.
- Emphasize the creative process over replication of a teacher-made product (e.g. “a small group of children at the writing table make a card with their own words and illustrations to cheer up a classmate who is in the hospital).
- Have lots of “I wonder” conversations, prompted by everyday happenings or experiences children talk about (e.g., “Kia said that it looks like the clouds are flying fast today. I wonder what it would be like to be a cloud. Where would you want to fly? How would you move?”)
- Expand, elaborate, and guide children’s inventive ideas and interests to create multi-disciplinary projects or studies where children ask questions, brainstorm, problem solve, plan, learn new vocabulary, investigate a topic, and produce documentation (e.g., after an investigation where children and teacher researched the topic of a class pet by visiting a pet store, the library, and children’s sites online, the classroom documented their observations and experiences by producing a class book. The children drew pictures and with teacher assistance and support “wrote” about their experience and shared “reading” the book with the other preschool classrooms and their families.).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
9.2.1	Show flexibility in approaching tasks by being open to new ideas (i.e., doesn’t cling to one approach to a task, but is willing to experiment and to risk trying out a new idea or approach).	
9.2.2	Use the imagination to solve problems, use materials, role play, write stories, move the body, or create works of art (e.g., create pretend spinach out of torn green construction paper to serve for dinner).	

9.2.3

Use multiple means of communication to creatively express thoughts, ideas, and feelings (e.g., sing a song and act out the story of the life cycle of a butterfly).

Standard 9.3: Children identify and solve problems.***Preschool Teaching Practices***

Effective preschool teachers:

- Stretch children’s thinking and use interesting language and vocabulary in conversations, while keeping the needs of dual language learners in mind. (e.g., “Alejandra, I noticed that you found the book about butterflies in the science area. Were you able to find a picture of a butterfly that is yellow with black designs like the one you drew? Do you know the words that go with the picture? Let’s look at the pictures and read the words again to see if we can find clues to help us learn the name of your butterfly. Then, maybe we can write them down in English and in Spanish so we can remember how to write the words to go with your drawing.”)
- Have conversations devoted to topics that are interesting to children and that offer challenging, relevant problems to solve. Give children time to come up with thoughtful solutions on their own (e.g. During a study of buildings, the teacher points out photos they took of important buildings while on a neighborhood walk. The teacher discusses the characteristics of the buildings they saw, asks children which materials would be best for constructing the buildings and encourages children to work collaboratively in small groups to construct a building using classroom supplies and recycled materials the teacher has provided, with the photos as a reference. Although the teacher is present to offer support, she allows the children to work out their own solutions for making buildings strong enough to stand and adding details.)
- Help children to break down a problem into manageable pieces, consider what information is needed and apply strategies for solving problems (e.g., The children return from playing outside and report that one of the girls has found a dollar on the playground. Everyone has a different idea about what she should do with the dollar. At circle time, the teacher listens to the children’s ideas and asks the children what they think they should do? Although many children think she should buy something for the classroom, one child says they should find out if anyone has lost a dollar. Children brainstorm ideas to identify the owner of the dollar. The teacher makes a list of their ideas and helps them decide on the next steps to take.).
- Show children that when you make a mistake, you figure out a way to keep from repeating the mistake by developing strategies to help you. Encourage children to learn from their mistakes (e.g., Amber forgets that it is library day. When she begins to cry and then to blame her mom for not reminding her to bring the book, the teacher helps Amber think of what she can do to remember to bring her library book to school on library day.

She tells Amber that she would sometimes forget her lunch bag at home, but now she puts her lunch bag by her car keys so she won't forget. The teacher brainstorms strategies with Amber and invites her to try out one of the strategies for remembering to bring back the book on the next library day and makes sure she follows up with Amber to see how the strategy worked.)

- Help children see themselves as thinkers. Infuse the words think and thinking when talking with children. Give children time to think before responding. Model thinking by using self-talk (e.g., “Adriana, Tamika, and Henry are not here today. Let’s think about out how many places we need to set for snack.”). Notice that this teaching practice strengthens approaches to learning while at the same time addressing math competencies.
- Offer specific feedback (e.g., “You used every unit block to build a strong, tall tower.” Avoid vague words, such as “nice work” and exaggerated praise, such as, “You are the best builder in the class.”). Supplement verbal feedback with gestures and facial expressions for children who are just learning a second language.
- Build on what children are learning by asking open-ended questions (e.g., “What do you think would happen if you...?” “What else could you do with...?” “Can you think of another way to...?” In science and math, the teacher might help children to conduct investigations, gather and analyze data, identify common patterns and rules, test the rules, then make predictions. In language arts, the teacher might help children analyze illustrations and make predictions (e.g., “I see a clue in the picture that helps me guess what will happen on the next page. Do you see it?”)
- Give children many opportunities for rehearsal and practice in learning new concepts or skills and give them strategies to recall information (e.g., “This spring we will draw a picture of the apple tree that we observed outside so that we can compare it to the one you drew in fall and winter.”)
- Encourage effective teamwork. Create investigations or projects where children can problem-solve interdependently. Encourage conversations between children, guiding them in listening to one another, sharing ideas, and welcoming the input and perspective of others. Help them understand that because what they do and say affects others, they need to consider the impact of their words and choices. Help children think about their thinking (metacognition) by giving them many opportunities to become more aware of their own thoughts, feelings, intentions, and actions. Help children critically evaluate their own and other’s ideas and decide which ones are worth exploring.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
9.3.1	Recognize a problem and describe or demonstrate ways to solve it alone or with others (e.g., “I know! Jamar and I can work together to clean off the table so that we can have a place to eat lunch.”)	
9.3.2	Use varied strategies to seek or recall information and to find answers (e.g., questioning, trial and error, testing, building on ideas, finding resources, drawing, or thinking aloud).	
9.3.3	Predict what will happen next based on prior experience and knowledge and test the prediction for accuracy (e.g., raising the height of the ramp to see if the ball will roll farther than when the ramp was lower).	
9.3.4	Reflect on, evaluate, and communicate what was learned (e.g., children in the class demonstrating and explaining their project to children in a younger group).	

Standard 9.4: Children apply what they have learned to new situations.***Preschool Teaching Practices***

Effective preschool teachers:

- Provide time for children to revisit and reflect on their experiences and learning through a variety of methods (e.g., discussion, conversation, journaling, art activities, music) and apply what they learn to new experiences. Multiple modes of expression can allow all children (dual language learners; children with disabilities) to participate in this process.
- Give children ample opportunities to use their prior experiences in socio-dramatic role play, so that they can master their own feelings and develop empathy for others (e.g., when taking on the role of a doctor wrapping a broken leg in the dramatic play area, a recently-hospitalized child uses comforting words to console the patient with the broken leg).
- Link the new to the familiar by helping children connect stories and activities with their own life experiences and prior knowledge (e.g., stories about babies after a sibling is born, stories about buildings and photos of construction from the neighborhood in the block area, and authentic music and food from another country to celebrate a recent immigrant classmate’s birthday).

- Give children opportunities to see connections and apply knowledge in fun, playful ways. Tap into children’s passion and enthusiasm and build on it (e.g., a child who is interested in spiders can read about them, play games about them, observe them, draw them, and write stories about them).
- Provide activities and props throughout the classroom that encourage interactions, conversations and support connections to concepts learned (e.g., in dramatic play, the “auto service shop” provides children the opportunity to ask and answer questions about pretend roles, use topic vocabulary, “write” service orders at various developmental levels, and creatively act-out roles).
- Give children feedback on their thinking to help them make new connections and applications (e.g., “Emily, you said that you saw the Olympics on TV and think you can jump as far as the gold medal winner in the long jump. When we go to the playground today, let’s measure how far you can jump! What can we use to measure the distance?”)

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
9.4.1	Use prior knowledge to understand new experiences or a problem in a new context (e.g., after learning about snakes, children make comparisons when finding a worm on the playground).	
9.4.2	Make connections between ideas, concepts, and subjects (e.g., children take pictures from a field trip or nature walk, and use them to write and illustrate classroom books).	
9.4.3	Demonstrate understanding of what others think and feel through words or actions (e.g., children act out a story that the teacher has told them, mirroring the characters’ emotions).	

MATHEMATICS

Introduction

A preschool classroom's physical and teaching environments should capitalize on children's natural, spontaneous interactions with math in the world around them by featuring a wide variety of ongoing mathematical opportunities. Possibilities for learning across all the math domains (identified in the Common Core State Standards for Mathematics as counting and cardinality, operations and algebraic thinking, number and operations in base ten, measurement and data, and geometry) should be available, daily, in classroom activity/interest areas, during small and large group teacher-child interactions, and out of doors.

While providing a wide array of opportunities for engaging with math, in conjunction with the Common Core State Standards, New Jersey's preschool standards for mathematics call attention to the fact that:

Early childhood mathematics should emphasize:

- number;
- spatial relations and measurement; and
- geometry;

with a top priority of developing:

- children's sense of number as quantity

and underscoring the importance of:

- mathematical practice skills.

Mathematics Practice Skills in Preschool

The Common Core addresses mathematical process skills through eight standards for mathematical practice used for kindergarten through twelfth grade. Based, in part, on the National Council of Teachers of Mathematics *Curriculum Focal Points – for Prekindergarten through Grade Eight Mathematics* the eight practice standards describe the skills necessary for thinking mathematically.

Young children need ongoing opportunities to develop their mathematical thinking. In addition to daily opportunities for independent choice and exploration, preschool classroom time should be regularly allotted for in depth, small group math experiences that encourage children to interact, pursue problem solving strategies and reflect. Teachers should facilitate a supportive learning environment by continuously observing, listening and scaffolding children's mathematical thinking in everyday contexts. Teachers should also recognize and

plan short- and long-term projects based on the strong opportunities for mathematical thinking and problem solving that occurs when mathematics is combined with other curriculum content areas.

The preschool mathematics practices, aligned with the Common Core Mathematical Practice Standards (and found in the chart, below) do not stand alone. Rather they are to be taught within and across each of New Jersey's preschool mathematics standards. The following chart describes the mathematical processes that should be occurring in preschool classrooms every day so that young children have ongoing opportunities to explore and develop their mathematical thinking.

Common Core Standards for Mathematical Practice	New Jersey Preschool Mathematical Practices
Make sense of problems and persevere in solving them.	<ul style="list-style-type: none"> • Teachers model for and work with children to think about, make plans, and follow through to solve a mathematical problem using objects or pictures. • Children informally experiment with math problem solving strategies using objects or pictures.
Reason abstractly and quantitatively.	<ul style="list-style-type: none"> • Teachers model for and work with children to solve number stories using objects or pictures (to ten). • Teachers introduce number symbols to describe number stories (to five). • Children draw pictures to begin to represent simple number stories (to five) and may begin to use number symbols in their drawings.
Construct viable arguments and critique the reasoning of others.	<ul style="list-style-type: none"> • Teachers use objects, drawings and actions while modeling mathematical thinking. • Children begin to use objects, drawings and actions to represent how they approached a mathematical problem.
Model with mathematics.	<ul style="list-style-type: none"> • Teachers point out math in everyday situations and model using math to solve everyday problems. • Children begin to use objects, pictures, words (and may begin to use number symbols [to five]) to solve simple everyday problems (to ten).
Use appropriate tools strategically.	<ul style="list-style-type: none"> • Teachers model and use tools (e.g., a clock, paper and pencil, dice, two- and three-dimensional geometric shapes) and standardized objects (e.g., Unifix® cubes, unit blocks).
Attend to precision.	<ul style="list-style-type: none"> • Teachers use mathematics vocabulary during classroom activities and routines. • Teachers model data collection for authentic purposes (e.g., attendance, lunch choices). • Children begin to use mathematics vocabulary during classroom activities and routines. • Children organize information by collecting and entering data on charts and graphs (e.g., conduct simple surveys, record results of a science activity).
Look for and make use of structure.	<ul style="list-style-type: none"> • Children use materials that give them experience with parts and wholes (e.g., filling egg cartons, combining shapes [tangrams, puzzles, pattern blocks], combining two groups to make one group [combining a group of plastic zoo animals with a group of plastic farm animals]).
Look for and express regularity in repeated reasoning.	<ul style="list-style-type: none"> • Teachers model for and work with children to develop simple patterns (e.g., ab, abb, abc) using objects, pictures, actions and words.

	<ul style="list-style-type: none"> • Children identify, repeat and extend simple patterns started by the teacher. • Children begin to intentionally make their own simple patterns using objects, pictures, actions and/or words.
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The Preschool Mathematics Standards

New Jersey's Preschool Standards for Teaching and Learning in Mathematics mirror the Common Core's goals for mathematics (sometimes referred to as 'big ideas') and the learning trajectories, or pathways, that children will follow from preschool through grade 12 to reach these goals. The preschool standards are ordered according to the domains used in the Common Core State Standards for mathematics:

Preschool Standard	Preschool Standard Content	Common Core Domain Alignment
Standard 1	Standard 1 is about number sense: -children's understanding of numbers and quantities.	<i>Counting and Cardinality</i>
Standard 2	Standard 2 is about number sense: -children's understanding of number relationships and operations.	<i>Operations and Algebraic Thinking</i>
Standard 3	Standard 3 is about children's ability to: -compare, -order; and -begin to measure.	<i>Measurement and Data</i>
Standard 4	Standard 4 is about: -children's ability to identify and use geometric shapes; and -children's understanding of position in space.	<i>Geometry</i>

In a high-quality preschool classroom, preschoolers are intentionally introduced to and engage in the ‘big ideas’ of mathematics. Teachers note children’s interests and strengths in addition to assessing each child’s prior experience and informal knowledge, effectively integrating differentiated math experiences into children’s daily routines and transitions.

With a comprehensive preschool curriculum as the vehicle, continuous (performance based) formative assessment of what each child in the class knows and is able to do translates into purposefully planned, standards based teaching practices. The teaching practices section of the preschool mathematics standards provides samples of activities and explorations for each of the learning outcomes.

There are four preschool mathematics standards:

Standard 4.1: Children begin to demonstrate an understanding of number and counting.

Standard 4.2: Children demonstrate an initial understanding of numerical operations.

Standard 4.3: Children begin to conceptualize measurable attributes of objects and how to measure them.

Standard 4.4: Children develop spatial and geometric sense.

Each of these four standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 4.1: Children begin to demonstrate an understanding of number and counting.

Preschool Teaching Practices

Preschool teachers will:

- Encourage and support attempts to learn to count numbers to 20 or higher.
- Include and refer by name to written numbers in the classroom environment during daily routines and in the context of large and small group experiences.
- Intentionally refer to the symbol and number name when discussing numbers (quantities) of objects.
- Provide manipulatives and materials (e.g., print and digital material, sand molds, tactile numeral cards, puzzles, counting books, hand-held devices such as tablets, interactive whiteboards) and activities (e.g. tracing numbers in sand, forming numbers with clay, recording data) that feature number names and number quantities.
- Provide a wide variety of writing materials for children to informally explore writing numbers along with meaningful contexts for children to write numbers on charts and graphs.

- Make materials and books that promote exploration of number quantities (e.g., collections of small objects, cash registers with money, number puzzles, counting books and games in print and digital formats, egg cartons and plastic eggs) accessible to children.
- Integrate purposeful counting experiences throughout the school day, indoors and outdoors (e.g., taking attendance, following the rule to stay three steps behind another person, climbing the ladder of the slide, pulling the paper towel holder lever twice. Play board games that involve arranging and counting objects and identifying small quantities of objects with small groups of children).
- Encourage children to compare numbers frequently through questions (e.g., “Are there more people riding in the bus or in the airplane?”) and graphing (e.g., favorite colors, pets).
- Foster one-to-one correspondence throughout the day (e.g., ask a child to put out just enough bowls and spoons for each stuffed animal seated at the table, ask a child to arrange just enough cars so that each garage space has one car in it).
- Model how to represent and describe data (e.g., display daily attendance on a graph and discuss “how many,” “more,” “less,” “fewer,” “equal to.”).
- Work with children in small groups to help them organize (classify) objects, describe their work, and represent the results (e.g., children use a series of graphs to represent the results of experiences in sorting buttons by various attributes – size, color, number of holes, etc.).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
4.1.1	Count to 20 by ones with minimal prompting.	K.CC.1
4.1.2	Recognize and name one-digit written numbers up to 10 with minimal prompting.	K.CC.2
4.1.3	Know that written numbers are symbols for number quantities and, with support, begin to write numbers from 0 to 10.	K.CC.3
4.1.4	Understand the relationship between numbers and quantities (i.e., the last word stated when counting tells “how many”):	K.CC.4
	(a) Accurately count quantities of objects up to 10, using one-to-one-correspondence, and accurately count as many as 5 objects in a scattered configuration.	
	(b) Arrange and count different kinds of objects to demonstrate understanding of the consistency of quantities (i.e., “5” is constant, whether it is a group of 5 people, 5 blocks or 5	

pencils).

(c) Instantly recognize, without counting, small quantities of up to 3 or 4 objects (i.e., subitize).

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| 4.1.5 | Use one to one correspondence to solve problems by matching sets (e.g., getting just enough straws to distribute for each juice container on the table) and comparing amounts (e.g., collecting the number of cubes needed to fill the spaces in a muffin tin with one cube each). | K.CC.5 |
| 4.1.6 | Compare groups of up to 5 objects (e.g., beginning to use terms such as “more,” “less,” “same”). | K.CC.6 |

Standard 4.2: Children demonstrate an initial understanding of numerical operations.

Preschool Teaching Practices

Preschool teachers will:

- Model addition for children by using counting to combine numbers (e.g., “Maria has two blocks and Justin has three. There are five blocks altogether: 1, 2, 3, 4, 5.”).
- Model subtraction for children by using counting to separate quantities of objects (e.g., “There are five cars on the carpet: 1, 2, 3, 4, 5. I am putting two cars in the basket. There are three cars left on the carpet.”).
- Engage informally with children during center time to explore joining and taking apart small quantities of concrete objects.
- Provide opportunities for children to independently explore addition and subtraction (e.g., using small manipulatives with egg cartons, muffin tins and story mats; interacting with children using computer software and handheld device applications).
- Develop addition and subtraction stories with small groups of children using story mats and flannel board scenes with small quantities of objects and pictures/drawings.
- Using fingers, chalk, wipe-off markers and/or whiteboard technology, tell and draw addition and subtraction stories with small groups of children.
- Provide writing materials and/or handheld devices with appropriate applications in classroom centers so that children can choose to view, solve and create addition and subtraction stories.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
4.2.1	Represent addition and subtraction by manipulating up to 5 objects:	K.OA.1
	(a) putting together and adding to (e.g., “3 blue pegs, 2 yellow pegs, 5 pegs altogether.”); and	K.OA.2
	(b) taking apart and taking from (“I have four carrot sticks. I’m eating one. Now I have 3.”).	K.OA.3
4.2.2	Begin to represent simple word problem data in pictures and drawings.	K.OA.4

Standard 4.3: Children begin to conceptualize measurable attributes of objects.

Preschool Teaching Practices

Preschool teachers will:

- Provide standard and nonstandard measurement materials both indoors and outdoors (e.g., unit blocks, inch cubes, rulers, cups, buckets, balance scales, water and sand tables).
- Invite children to compare and order objects according to measurable attributes (e.g., length, height, weight, area).
- Listen for and extend children’s conversations about long and short, longer and shorter, short and tall, shorter and taller, etc.
- Provide materials for children to sort, classify, order, and pattern (e.g., buttons, beads, colored craft sticks, bowls, trays).
- Use digital photography to record children’s measurement activities so that students can revisit, think more about, and discuss their strategies with adults and classmates.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
4.3.1	Sort, order, pattern, and classify objects by non-measurable (e.g., color, texture, type of material) and measurable attributes	K.MD.3

	(e.g., length, capacity, height).	
4.3.2	Begin to use appropriate vocabulary to demonstrate awareness of the measurable attributes of length, area, weight and capacity of everyday objects (e.g., long, short, tall, light, heavy, full).	K.MD.1
4.3.3	Compare (e.g., which container holds more) and order (e.g., shortest to longest) up to 5 objects according to measurable attributes.	K.MD.2

Standard 4.4: Children develop spatial and geometric sense.***Preschool Teaching Practices***

Effective preschool teachers:

- Use positional words (e.g., over, under, behind, in front of) to describe the relative position of items and people, and encourage the children to use them (e.g., “Michael is sitting next to Ana.” “I see that you used yellow paint under the blue stripe on your painting.” “Are you in front of or behind me?” “The car is on the right.”).
- Dramatize stories that make use of positional words (e.g., *Rosie’s Walk* by Pat Hutchins).
- Use everyday experiences to foster understanding of spatial sense (e.g., talk about locations in the school, map the classroom by learning/interest area, invite children to use blocks to create simple scenes or locations [e.g., the park, the zoo] ask children to describe and/or draw how to get from the classroom block area to the easel).
- Provide materials that can be put together and taken apart indoors and outdoors that help children to develop spatial and geometric sense (e.g., puzzles of varying complexity, items to fill and empty, fit together and take apart, or arrange and shape; materials that move; tunnels to crawl through).
- Introduce vocabulary describing two- and three-dimensional shapes and constructions (e.g., circle, sphere, square, cube, triangle, rectangular prism, pyramid; side, point, angle) and use that vocabulary when interacting with children and materials in learning centers, small groups, and individual settings.
- Provide opportunities for children to compose and decompose pictures and designs with two-dimensional shapes (e.g., tangrams, in collage arrangements, two-dimensional manipulative shapes, computer and interactive whiteboard software, handheld device [such as a tablet] applications).
- Provide opportunities for children to compose and decompose with three-dimensional shapes (e.g., unit blocks, hollow blocks, three-dimensional manipulative shapes, boxes, balls, three-dimensional styrofoam shapes).

- Provide opportunities for children to talk about their two- and three-dimensional designs with other children and with adults.
- Provide opportunities for children to explore and describe the differences and similarities between attributes of two- and three-dimensional shapes (e.g., “It’s like a can.” “It has 3 sides and 3 points, so it’s a triangle.”) and constructions (e.g., faces of attribute blocks, balls, blocks of all shapes, boxes, beads).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
4.4.1	Respond to and use positional words (e.g., in, under, between, down, behind).	K.G.1
4.4.2	Use accurate terms to name and describe some two-dimensional shapes and begin to use accurate terms to name and describe some three-dimensional shapes (e.g., circle, square, triangle, sphere, cylinder, cube, side point, angle).	K.G.2
4.4.3	Manipulate, compare and discuss the attributes of: <ol style="list-style-type: none"> two-dimensional shapes (e.g., use two dimensional shapes to make designs, patterns and pictures by manipulating materials such as paper shapes, puzzle pieces, tangrams; construct shapes from materials such as straws; match identical shapes; sort shapes based on rules [something that makes them alike/different]; describe shapes by sides/angles; use pattern blocks to compose/decompose shapes when making and taking apart compositions of several shapes). three-dimensional shapes by building with blocks and with other materials having height, width and depth (e.g., unit blocks, hollow blocks, attribute blocks, boxes, empty food containers, plastic pipe). 	K.G.4 K.G.5

SCIENCE

Introduction

Young children first construct scientific knowledge by using their senses to interact with their environment and make sense of the world around them. Their science understanding is facilitated and extended by adults whose own sense of wonder is a match for their curiosity. Children are more inclined to observe, question, and reflect about their investigations when encouraged by teachers who are also invested in the process. Thus, throughout the preschool years, children develop and refine their scientific abilities through observing, inquiring, and experimenting during rich and inviting opportunities for open-ended exploration and focused inquiry.

Preschool teachers intentionally encourage science investigations and inquiry based on their observations of children's interests and experiences, as well as based on their professional understanding of appropriate science content and learning outcomes for young children. Teachers actively encourage sustained exploration of a particular topic over as long as four to five weeks of focused inquiry. Teachers understand that purposefully planned experiences within children's immediate environment and daily surroundings provide the best context for science learning. In addition, preschool teachers seize opportunities for enhancing children's learning during exploration that naturally integrates math and science concepts. They purposefully introduce materials, techniques, and technologies that provide natural avenues to science learning.

Families should always be invited to observe and participate in classroom science activities. Teachers can stress the importance of modeling a positive attitude about science by providing activity extensions for families to explore at home. Community partnerships and resources should be valued and used as much as possible. Science centers, working farms, public gardens, and children's museums often have science exhibits or programs that are developmentally appropriate for preschoolers and that expand upon concepts children are exploring in their classrooms. Local businesses, including nurseries, fruit and vegetable markets, and pet stores are all valuable resources for enhancing classroom science investigations.

There are five preschool science standards:

Standard 5.1: Children develop inquiry skills.

Standard 5.2: Children observe and investigate matter and energy.

Standard 5.3: Children observe and investigate living things.

Standard 5.4: Children observe and investigate the Earth.

Standard 5.5: Children gain experience in using technology.

Each of these five standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 5.1: Children develop inquiry skills.***Preschool Teaching Practices***

Effective preschool teachers:

- Provide a supportive classroom climate that encourages children to pursue ideas through the use of science inquiry skills. The environment should encourage children to wonder, observe, ask questions, and investigate as they solve problems, engage with phenomena, and make decisions during daily activities both indoors and outdoors. Science preparation and planning should reflect intentionality, with the teacher thinking about how to best develop science concepts in the context of children’s everyday classroom lives and experiences.
- Prepare the classroom with open-ended nature/science objects and materials that children can explore and use independently and that are linked to ongoing classroom explorations (e.g., collections of rocks, pinecones, and seed pods during a study of the local environment; nature/science books; nature sequence cards that support an investigation of life cycles; magnifying glasses; collections of measuring tools at the sand table; items that water can flow through at the water table; plants grown from seed; journals for recording; audio-visual materials; computer software).
- Plan intentionally for children’s conceptual learning during small-group science experiences that include a series of related, simple experiments and experiences (e.g., freezing and melting to expose children to states of matter; blowing through straws and hollow tubes on common objects to explore energy and motion; sprouting seeds with and without light to better understand the needs of living things; exploring chemical changes that occur when ingredients are mixed and cooked in an oven; using the senses to explore, compare, and describe variations in textures of various rocks).
- Provide opportunities for focused inquiry over longer time periods (e.g., investigating flow at the water table; exploring light and shadow indoors and out; pursuing a study involving observations of growing things, using a variety of plants grown indoors and out; exploring sound; exploring simple machines, such as wheels, levers, and inclined planes, in everyday classroom contexts).
- Facilitate individual and small-group discussions based on open-ended science explorations and focused inquiry to encourage children to share, discuss, reflect on, and form explanations about their emerging ideas.
- Help children identify and refine questions that can be explored through science investigations.
- Pose questions that lead to making predictions (e.g., “What do you think will happen if ...?”).
- Provide regular opportunities for children to collect, measure, record, and represent science experiences and data (e.g., collecting natural items that are signs of fall, using lengths of yarn to measure how far a ball rolls, using simple charts).
- Facilitate children’s acquisition and use of basic science terms and topic-related science vocabulary along with access to nonfiction books, audio and video materials, and Website photographs and information.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
5.1.1	Display curiosity about science objects, materials, activities, and longer-term investigations in progress (e.g., ask who, what, when, where, why, and how questions during sensory explorations, experimentation, and focused inquiry).	5.1.P.A.1
5.1.2	Observe, question, predict, and investigate materials, objects, and phenomena during classroom activities indoors and outdoors and during any longer-term investigations in progress. Seek answers to questions and test predictions using simple experiments or research media (e.g., cracking a nut to look inside; putting a toy car in water to determine whether it sinks).	5.1.P.B.1
5.1.3	Use basic science terms (e.g., observe, predict, experiment) and topic-related science vocabulary (e.g., words related to living things [fur, fins, feathers, beak, bark, trunk, stem]; weather terms [breezy, mild, cloudy, hurricane, shower, temperature]; vocabulary related to simple machines [wheel, pulley, lever, screw, inclined plane]; words for states of matter [solid, liquid]; names of basic tools [hammer, screwdriver, awl, binoculars, stethoscope, magnifier]).	5.1.P.B.2
5.1.4	Communicate with other children and adults to share observations, pursue questions, make predictions, and/or conclusions.	5.1.P.C.1
5.1.5	Represent observations and work through drawing, recording data, and “writing” (e.g., drawing and “writing” on observation clipboards, making rubbings, charting the growth of plants).	5.1.P.D.1

Standard 5.2: Children observe and investigate matter and energy.

Preschool Teaching Practices

Effective preschool teachers:

- Provide a variety of interesting materials and objects (e.g., solids and liquids) in learning centers to encourage children to observe, manipulate, sort, and describe physical properties (e.g., size, shape, color, texture, weight) using their five senses as well as simple tools (e.g., magnifiers, balance scales).

- Provide opportunities for children to explore changes in matter (e.g., liquids and solids) when substances are combined, heated, or cooled (e.g., when mixing ingredients for cooking, mixing paint colors, preparing recipes that involve heating or cooling, exploring water as a solid and a liquid), including projects or studies over an extended period of time (e.g., an in-depth investigation of water that includes how water moves, what happens when things are mixed with water, and the behavior of drops of water).
- Facilitate children’s investigations of forms of energy (sound, heat, and light).
- Provide opportunities for children to explore motion (e.g., objects can move in many ways) and the forces that affect motion (e.g., natural phenomena and mechanical forces) in projects or studies over an extended period of time.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
5.2.1	Observe, manipulate, sort, and describe objects and materials (e.g., water, sand, clay, paint, glue, various types of blocks, collections of objects, simple household items that can be taken apart, or objects made of wood, metal, or cloth) in the classroom and outdoor environment based on size, shape, color, texture, and weight.	5.2.P.A.1
5.2.2	Explore changes in liquids and solids when substances are combined, heated, or cooled (e.g., mixing sand or clay with various amounts of water; preparing gelatin; mixing different colors of tempera paint; and longer term investigations, such as the freezing and melting of water and other liquids).	5.2.P.B.1
5.2.3	Investigate sound, heat, and light energy through one or more of the senses (e.g., comparing the pitch and volume of sounds made by commercially made and homemade instruments, recording how shadows change during the course of a day or over time, using flashlights or lamp light to make shadows indoors).	5.2.P.C.1
5.2.4	Investigate how and why things move (e.g., slide block, balance structures, push structures over, use ramps to explore how far and how fast different objects move or roll).	5.2.P.E.1

Standard 5.3: Children observe and investigate living things.

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for children to observe and investigate the characteristics of plants and animals in their natural habitats and in the classroom over time.
- Facilitate children’s observations of similarities and differences (e.g., discussing the physical needs of a bird and a dog) in the needs of various living things and their observations of differences between living and nonliving things (e.g, classifying living and nonliving things found in water or on land).
- Encourage children to explore available outdoor habitats (e.g., the trees or a patch of ground outside the classroom) and to participate in caring responsibly for living things during and outside of school time (e.g., fish tank, plants, hermit crabs, ladybugs, butterflies).
- Provide opportunities for children to investigate changes in living things over time (e.g., the life cycles of plants or mealworms).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
5.3.1	Investigate and compare the basic physical characteristics of plants, humans, and other animals (e.g., observing and discussing leaves, stems, roots, body parts; observing and drawing different insects; sorting leaves by shape; comparing animals with fur to those with feathers).	5.3.P.A.1
5.3.2	Observe similarities and differences in the needs of living things, and differences between living and nonliving things (e.g., observing and discussing similarities between animal babies and their parents; discussing the differences between a living thing, such as a hermit crab, and a nonliving thing, such as a shell).	5.2.P.A.2
5.3.3	Observe and describe how natural habitats provide for the basic needs of plants and animals with respect to shelter, food, water, air, and light (e.g., digging outside in the soil to investigate the kinds of animal life that live in and around the ground or replicating a natural habitat in a classroom terrarium).	5.3.P.C.1
5.3.4	Observe and record change over time and cycles of change that affect living things (e.g., monitoring the life cycle of a plant, using children’s baby photographs to discuss human change and growth, using unit blocks to record the height of classroom plants).	5.3.P.D.1

Standard 5.4: Children observe and investigate the Earth.***Preschool Teaching Practices***

Effective preschool teachers:

- Provide opportunities for exploring the natural environment, indoors and outdoors (e.g., soil, rocks, water, and air).
- Provide opportunities for exploring the natural energy of sunlight through its connection with living and nonliving things (e.g., a plant’s need for sunlight or the effects of light and shadow on objects).
- Provide opportunities for investigating weather phenomena (e.g., recording daily changes in weather, observing cycles of seasonal change, discussing characteristics of different kinds of weather).
- Use classroom experiences to assist children in developing an awareness of conservation and respect for the natural environment in everyday contexts (e.g., conserving resources, recycling).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
5.4.1	Explore and describe characteristics of soil, rocks, water, and air (e.g., sorting rocks by shape and/or color, observing water as a solid and a liquid, noticing the wind’s effect on playground objects).	5.4.P.C.1
5.4.2	Explore the effects of sunlight on living and nonliving things (e.g., growing plants with and without sunlight, investigating shadows that occur when the sun’s light is blocked by objects).	5.4.P.E.1
5.4.3	Observe and record weather (e.g., chart temperatures throughout the seasons or represent levels of wind by waving scarves outdoors).	5.4.P.F.1
5.4.4	Demonstrate emergent awareness of the need for conservation, recycling, and respect for the environment (e.g., turning off water faucets, collecting empty yogurt cups for reuse as paint containers, separating materials in recycling bins, re-using clean paper goods for classroom collage and sculpture projects).	5.4.P.G.1

Standard 5.5: Children gain experience in using technology.***Preschool Teaching Practices***

Effective preschool teachers:

- Provide and assist students with identifying and using appropriate tools and technology in support of their science investigations (e.g., computers; video, audio, and camera equipment; cooking equipment; measuring tools; writing and painting tools; tools that extend sensory exploration; simple machines; woodworking tools).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
5.5.1	Identify and use basic tools and technology to extend exploration in conjunction with science investigations (e.g., writing, drawing, and painting utensils, scissors, staplers, magnifiers, balance scales, ramps, pulleys, hammers, screwdrivers, sieves, tubing, binoculars, whisks, measuring cups, appropriate computer software and website information, video and audio recordings, digital cameras, tape recorders).	5.1.P.B.3

SOCIAL STUDIES, FAMILY, AND LIFE SKILLS

Introduction

The teaching of social studies, family, and life skills in the preschool classroom begins with cultivating all children's understanding of themselves and their place in the family and moves to an understanding of social systems in ever widening circles: from the family to the classroom community, the neighborhood, and the world. Preschool teachers provide a wide range of concrete, developmentally appropriate activities and field trips that offer opportunities to explore and celebrate similarities and differences among children, lifestyles, and cultures. However, teachers understand that young children classify and make concrete connections that sometimes lead to statements that may sound biased. At these times, teachers take the opportunity to discuss racial, culture, and gender biases with children. These discussions help build a foundation for understanding and appreciating diversity.

Social studies, family, and life skills are integrated throughout the preschool day, as teachers endeavor to establish a caring community life based on respect and appreciation of individual differences. The classroom environment is organized to provide opportunities for children to develop independent behaviors and to act out real-life situations. The environment reinforces those skills and concepts that encourage good citizenship and that develop each child's capacity to participate in a culturally diverse, democratic society in an increasingly interdependent world.

Families should be given ongoing opportunities to visit the classroom and share their cultural traditions and experiences throughout the school year. Celebrating cultural diversity should not be limited to holidays.

There are four preschool social studies, family, and life skills standards:

- Standard 6.1: Children identify unique characteristics of themselves, their families, and others.**
- Standard 6.2: Children become contributing members of the classroom community.**
- Standard 6.3: Children demonstrate knowledge of neighborhood and community.**
- Standard 6.4: Children demonstrate awareness of the cultures within their classroom and community.**

Each of these four standards is further elaborated in the sections that follow. For each standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 6.1: Children identify unique characteristics of themselves, their families, and others.

Preschool Teaching Practices

Effective preschool teachers:

- Engage in one-on-one and small-group conversations about similarities and differences of children (e.g., eyes, hair, skin tone, talents, interests, food preferences, gender).
- Encourage children to appreciate individual differences by providing diverse materials, literature, and activities (e.g., mirrors, graphs, height charts; multicultural paints, papers, and crayons).
- Incorporate books, materials, and activities that support diversity with respect to race, ethnicity, culture, age, abilities, gender, and nonstereotypic roles (e.g., music, literature, dramatic play props, puzzles, displays).
- Incorporate materials, photos, artifacts, and props from diverse families that reflect family roles and traditions.
- Invite family members to come to the classroom to share foods, talents, and traditions.
- Support and recognize differences in family structures, routines, and traditions through discussions, literature, and activities (e.g., placing diverse articles of clothing in housekeeping area).
- Use language to identify family members, roles, traditions, and artifacts (e.g., “Your Uncle Leo is your daddy’s brother.” “Rabiye’s mother wears a burka.” “Some grandmothers go to work, just like Tony’s. Others stay at home and work.”).
- Encourage children to use materials and supplies in a nonstereotypical manner (e.g., “Both men and women cook and wear aprons.”).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
6.1.1	Describe characteristics of oneself, one’s family, and others.	6.1.P.D.1
6.1.2	Demonstrate an understanding of family roles and traditions.	6.1.P.D.2
6.1.3	Express individuality and cultural diversity (e.g., through dramatic play).	6.1.P.D.3

Standard 6.2: Children become contributing members of the classroom community.

Preschool Teaching Practices

Effective preschool teachers:

- Involve children in developing a few simple rules with an emphasis on positive rules (e.g., “walking feet” instead of “no running”).

- Establish classroom routines and involve children in the upkeep of the classroom (e.g., taking care of the pet, cleaning up, watering plants, washing hands before using the water table to avoid spreading germs).
- Model appropriate behaviors during family-style meals (e.g., sitting during meals, engaging in conversation, asking to be excused from the table when finished eating).
- Plan activities and routines that encourage cooperation and collaboration (e.g., classroom murals, pair-painting, buddy system).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
6.2.1	Demonstrate understanding of rules by following most classroom routines.	6.1.P.A.1
6.2.2	Demonstrates responsibility by initiating simple classroom tasks and jobs.	6.1.P.A.2
6.2.3	Demonstrate appropriate behavior when collaborating with others.	6.1.P.A.3

Standard 6.3: Children demonstrate knowledge of neighborhood and community.

Preschool Teaching Practices

Effective preschool teachers:

- Provide materials, literature, and activities that explore different types of homes (e.g., apartment buildings, motels, single-family houses, multi-family houses).
- Involve children in first-hand experiences in their community (e.g., field trips in the school or neighborhood) and discuss and involve children in mapping its physical features.
- Invite visitors with community service roles into the class (e.g., business owner, nurse, doctor, postmaster, firefighter, police officer, veterinarian, teacher, secretary).
- Furnish learning centers with literature, activities, and materials for play based on children's experiences with their community (e.g., visit the supermarket then create a classroom store; visit the school office then create a classroom office).
- Involve children in discussions about the homes they live in and the different types of homes in the community (e.g., by taking neighborhood walks).

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
6.3.1	Develop an awareness of the physical features of the neighborhood/community.	6.1.P.B.1
6.3.2	Identify, discuss, and role-play the duties of a range of community workers.	6.1.P.B.2

Standard 6.4: Children develop an awareness of the cultures within their classroom and their community.

Preschool Teaching Practices

Effective preschool teachers:

- Explore cultures represented in the classroom and community and integrate information about these cultures into the daily curriculum as well as into classroom literature, activities, and play materials.
- Invite families and other community members to tell stories about and provide activities (e.g., share foods, clothing, and traditions with teachers and peers) that engage children in their cultures and traditions.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
6.4.1	Learn about and respect other cultures within the classroom and community.	6.1.P.D.4

WORLD LANGUAGES

Introduction

The diverse nature of our society necessitates that children develop an understanding of languages other than their own. The world languages standard addresses this need by describing what all preschool children should learn and what teachers should teach to encourage awareness of different languages.

In preschool, children are just beginning to learn about language and how it works. Some of their language learning will focus on the languages spoken in their homes, and some of this learning will focus on the languages they encounter in their community. With the growing number of young children in New Jersey who speak and understand different home languages, preschool teachers and classrooms must be equipped to support children's learning in more than one language. Being bilingual can be an asset for all children. Teachers can integrate words from languages other than English into the classroom through songs, daily routines, and storybooks. Labels written in languages other than English can be used to identify items within the classroom. Parents and community members who speak languages other than English can be valuable resources in helping children both understand and respect the linguistic diversity present in our culture, and they should be invited to share these languages with the children.

Special consideration must be given to preschool children who already know more than one language. Materials should be available that represent and support the native languages and cultures of the children and adults in the class. Teachers should understand that all languages are learned in context as children interact with and explore their world. In addition, teachers should plan opportunities to extend children's language throughout the day and across all content areas.

There is one preschool world languages standard:

Standard 7.1: Children know that people use different languages (including sign language) to communicate, and will express simple greetings, words, and phrases in a language other than their own.

This standard is further elaborated in the sections that follow. For this standard, effective preschool teaching practices are listed, followed by the preschool competencies that develop as a result of those practices.

Standard 7.1: Children know that people use different languages (including sign language) to communicate, and will express simple greetings, words, and phrases in a language other than their own.

Preschool Teaching Practices

Effective preschool teachers:

- Provide opportunities for children to hear simple greetings, words, or phrases in a language other than their own (including sign language) in appropriate contexts (e.g., during dramatic play, in stories, when greeting visitors).
- Expose children to words or phrases in a language other than their own, particularly language related to the following topics: family, friends, home, school, community, wellness, leisure activities, basic needs, and animals.
- Begin to expose children to language for topics that extend beyond the self, such as simple geography and weather.
- Provide conversations and stories in different languages using a variety of media (e.g., teachers, peers, visitors, songs, videos, computers).
- Identify languages spoken by classmates, parents, or visitors and explain that people use different languages.
- Put written labels on some items in the room using various languages.
- Use visual aids available in the classroom (e.g., props, pictures, and photos of daily routines) to enhance comprehension of world languages.
- Read and display children’s books in different languages.
- Provide rhymes and songs for children in different languages.
- Give simple commands or instructions in a language other than English.

Preschool Learning Outcomes

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
7.1.1	Acknowledge that a language other than their own is being spoken or used (e.g., in a story, rhyme, or song).	7.1.P.A.1
7.1.2	Say simple greetings, words, and phrases in a language other than their own.	7.1.P.A.2
7.1.3	Comprehend previously learned simple vocabulary in a language other than their own.	7.1.P.A.3
7.1.4	Communicate effectively with adults and/or classmates who speak other languages by using gestures, pointing, or facial expressions to augment oral language.	7.1.P.A.4

TECHNOLOGY

Using Technology with Preschool-Age Children

Like blocks, books, and crayons, technology in a preschool classroom offers versatile learning tools that can support children’s development in all domains. For example, there are electronic storybooks that can “read” stories to children in multiple languages, adventure games that foster problem-solving skills, story-making programs that encourage literacy and creativity, math-related games that help children count and classify, and science activities that promote inquiry and an understanding of the world through the lens of a child. When preschoolers are encouraged to work together with electronic devices and computers, social skills are tapped as children negotiate turn-taking. However, technology should never be used to replace the concrete, real-life experiences that are critical to a young child’s learning; it must always be used in balance with other meaningful activities and routines. Technology should be embedded into children’s centers and should be used to enhance their learning and development during choice time as well as during small-group experiences.

The number and type of developmentally appropriate technology-based play options for preschool-age children are increasing on a daily basis. While some of these experiences involve “traditional” desktop computers of the mouse-and keyboard-variety, others take new and sometimes unexpected forms. They may include a toy that talks or responds to a child’s touch, an electronic storybook, or a pen-like stylus that can, with a tap, read a word in a variety of languages. There are game consoles that can convert a large screen into a gross-motor game or easel, and a variety of technology-based tools that can enhance a child’s exploration or representation, including audio recorders, digital cameras, TV microscopes, or video capture devices.

By the end of preschool, children with technology experience can use pull-down menus to launch programs, can negotiate menus and interfaces, and feel comfortable using computers, digital cameras, smart toys, handheld devices, and game consoles for simulations, art projects, creating stories, and looking up facts. The behaviors listed in the standards below are indicative of these understandings and should never be used as a formal measure of a child’s knowledge. In addition, because technology is continually evolving, it is important to use this list in principle and add skills or concepts that reflect the state of the art.

There are five preschool standards for technology:

Standard 8.1: Navigate simple on screen menus.

Standard 8.2: Use electronic devices independently.

Standard 8.3: Begin to use electronic devices to communicate.

Standard 8.4: Use common technology vocabulary.

Standard 8.5: Begin to use electronic devices to gain information.

These standards are further elaborated in the sections that follow. First, effective preschool teaching practices that may apply to multiple standards are listed, followed by the preschool competencies that develop as a result of those practices.

Preschool Teaching Practices

Effective preschool teachers:

- Never formally “teach” technology skills and competencies. Instead, set the stage for successful experimentation by providing the materials, introducing them, and being available to lend support.
- Let children pretend with the types of gadgets they see their parents using. Stock the dramatic play area with a nonworking mouse and keyboard, cell phone, and/or electronic music device.
- Look for activities that give children ways to “accidentally succeed,” providing instant feedback and fostering feelings of control. Avoid poorly designed interactive media experiences with long stretches of uninterrupted animation or narration that might frustrate children or cause them to lose interest.
- Keep a camcorder or digital camera handy to capture and display children’s work.
- Set the stage for highly social, active learning by choosing activities that encourage more than one child to play together (e.g., place two to three chairs around computers, place multiple headsets around electronic books, select logic and problem-solving activities that children can work on together).
- Offer technology options in each center of the room during choice and small-group times.
- Model common technology vocabulary, such as email, Internet site, software, hardware, computer, mouse, digital camera, and printer.
- Encourage children to record their activities and projects using digital cameras.
- Introduce new technology during circle time, prior to placing it in a center, and while modeling how to care for the technological device.
- Use strategies to teach children how to monitor their computer usage.
- Mark the left mouse button with a sticker to help children know which button to press.
- Research software, toys, and gadgets before buying by reading reviews, as you would with any other classroom materials.
- Use computers to conduct Internet searches for subjects of interest. Let children participate in the process of coming up with search words, and allow them to see the results in ways they can understand (e.g., as a set of images rather than as text).
- Make technology accessible to all children, including English Language Learners, and use it as an accommodation for an individual child with special needs. Assistive technologies can take the form of low-tech, mid-tech, and high tech devices (e.g. visual schedule, touch screens, single switch toys).

Preschool Learning Outcomes**Standard 8.1: Navigate simple on screen menus.**

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
8.1.1	Use the mouse to negotiate a simple menu on the screen (e.g., to print a picture).	8.1.P.A.1
8.1.2	Navigate the basic functions of a browser, including how to open or close windows and use the “back” key.	8.1.P.F.1

Standard 8.2: Use electronic devices independently.

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
8.2.1	Identify the “power keys” (e.g., ENTER, spacebar) on a keyboard.	8.1.P.A.3
8.2.2	Access materials on a disk, cassette tape, or DVD. Insert a disk, cassette tape, CD-ROM, DVD, or other storage device and press “play” and “stop.”	8.1.P.C.2
8.2.3	Turn smart toys on and/or off.	8.1.P.A.6
8.2.4	Recognize that the number keys are in a row on the top of the keyboard.	8.1.P.A.4
8.2.5	Operate frequently used, high quality, interactive games or activities in either screen or toy-based formats.	8.1.P.C.1
8.2.6	Use a digital camera to take a picture.	8.1.P.B.1

Standard 8.3: Begin to use electronic devices to communicate.

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
8.3.1	Use electronic devices (e.g., computer) to type name and to create stories with pictures and letters/words.	8.1.P.A.2

Standard 8.4: Use common technology vocabulary.

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
8.4.1	Use basic technology terms in conversations (e.g. digital camera, battery, screen, computer, Internet, mouse, keyboard, and printer).	8.1.P.A.5

Standard 8.5: Begin to use electronic devices to gain information.

Children will:

Preschool Number	Preschool Indicator	P-12 Database Number
8.5.1	Use the Internet to explore and investigate questions with a teacher's support.	8.1.P.E.1

BIBLIOGRAPHY

- Abbott, L., & Nutbrown, C. (2001). *Experiencing Reggio Emilia: Implications for pre-school provisions*. Buckingham, UK: Open University Press.
- Alexander, N. (2000). *Early childhood: Workshops that work*. Beltsville, MD: Gryphon House.
- Allen, K. E., & Schwartz, I. S. (2000). *Exceptional child: Inclusion in early childhood* (4th ed.). Clifton Park, NY: Delmar Thomson Learning.
- Althouse, R. (1988). *Investigating science with young children*. New York: Teachers College Press.
- Althouse, R. (1994). *Investigating mathematics with young children*. New York: Teachers College Press.
- Althouse, R., Johnson, M., & Mitchell, S. (2003). *The colors of learning: Integrating the visual arts into the early childhood curriculum*. New York: Teachers College Press and Washington, DC: National Association for the Education of Young Children.
- Alvarado, C. (Ed.). (1999). *In our own way: How anti-bias work shapes our lives*. St. Paul, MN: Redleaf Press.
- Arnold, J. C. (2000). *Endangered: Your child in a hostile world*. Farmington, PA: Plough Publishing House.
- Ashton-Warner, S. (1985). *Teacher*. New York: Simon & Schuster.
- Banks, J. E. (2000). *Cultural diversity and education: Foundations, curriculum, and teaching* (4th ed.). Boston: Allyn & Bacon.
- Bardige, Betty S. and Segal, Betty M. (2005). *Building Literacy with Love*. Zero to Three Press, Washington D.C.
- Baroody, A. (1987). *Children's mathematical thinking: A developmental framework for preschool, primary, and special education teachers*. New York: Teachers College Press.
- Barth, R. (2001). *Learning by heart*. San Francisco: Jossey-Bass.
- Barvett, K., Hosoume, K., & Blinderman, E. (1999). *Science and math explorations for young children*. Berkeley, CA: University of California.
- Beaty, J. (1996). *Building bridges with multicultural picture books: For children 3-5*. Upper Saddle River, NJ: Prentice Hall.

- Bedrova, E., Leong, D., & Shore, R. (2004). *Child outcome standards in Pre-K programs: What is needed to make them work?* New Brunswick, New Jersey: National Institute for Early Education Research in Preschool Policy Matters.
- Berk, L., & Winsler, A. (1995). *Scaffolding children's learning: Vygotsky and early childhood education*. Washington, DC: National Association for the Education of Young Children.
- Bergen, D. (Ed.). (1987). *Play as a medium or learning and development: A handbook of theory and practice*. Portsmouth, NH: Heinemann.
- Bettelheim, B. (1989). *The uses of enchantment*. Newbury Park, CA: Vintage Press.
- Bloom, B., Krathwohl, D. R. (Ed.), & Anderson, Lorin W. (Ed.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman Publishing.
- Bowman, Barbara (2002). *Love to Read: Essays in Developing and Enhancing Early Literacy Skills of African American Children*. National Black Child Development Institute, Inc., Washington D.C.
- Bredenkamp, S. (1987). *Developmentally appropriate practice in early childhood programs serving children birth through eight*. Washington, DC: National Association for the Education of Young Children.
- Bredenkamp, S., & Copple, C. (1997). *Developmentally appropriate practice in early education* (Rev. ed.). Washington, DC: National Association for the Education of Young Children.
- Bruner, J. S. (1977). *The process of education*. Cambridge, MA: Harvard University Press.
- Burns, M. S., Griffin, P., & Snow, C. (Eds.). (1999). *Starting out right: A guide to promoting children's reading success*. Washington, DC: National Academy Press.
- Cadwell, L. B. & Candini, L. (1997). *Bringing Reggio Emilia home: An innovative approach to early childhood education*. New York: Teachers College Press.
- Carr, M. (2010). *Assessment in Early Childhood Settings*. Los Angeles: Sage.
- Ceglowksi, D. (1999). *Inside a head start center: Developing policies from practice*. New York: Teachers College Press.
- Chang, H. N. L. (1993). *Affirming children's roots: Cultural and linguistic diversity in early care and education*. San Francisco: California Tomorrow.
- Charney, R. S. (1992). *Teaching children to care: Management in the responsive classroom*. Greenfield, MA: Northeast Foundation for Children.

Charney, R. S. (1997). *Habits of goodness: Case studies in the social curriculum*. Greenfield, MA: Northeast Foundation for Children

Child Development Tracker: Approaches to learning. Retrieved April 16, 2012 from <http://www.pbs.org/parents/childdevelopmenttracker/five/approachestolearning.html>

Clay, M. (2000). *Concepts about print: What have children learned about the way we print language?* Portsmouth, NH: Heinemann.

Clements, D. H. (1999). Geometry and spatial thinking in young children. In J.V. Copley (Ed.), *Mathematics in the Early Years*. Reston, VA: National Council of Teachers of Mathematics and Washington, DC: National Association for the Education of Young Children.

Cohen, D., Stern, V., & Balaban, N. (1996). *Observing and recording the behavior of young children*. New York: Teachers College Press.

Cohen, E., & Goodlad, J. I. *Designing groupwork: Strategies for the heterogeneous classroom*. New York: Teachers College Press.

Conklin, Susan (2005). *Children as Illustrators: Making Meaning through Art and Language*. National Association for the Education of Young Children, Washington D.C.

Conn-Powers, M. (2006). *All children ready for school: Approaches to learning*. The Early Childhood Briefing Paper Series. Bloomington, IN: Indiana University.

Colbert, C., & Taunton, M. (1992). *Developmentally appropriate practices for the visual arts education of young children*. Reston, VA: National Art Education Association.

Cook, R. E., Tessier, A., & Klein, M. D. (1999). *Adapting early childhood curricula for children in inclusive settings* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Copley, J. V. (2000.) *The young child and mathematics*. Reston, VA: National Council of Teachers of Mathematics and Washington, DC: National Association for the Education of Young Children.

Copple, Carol and Bredekamp, Sue (2009). *Developmentally Appropriate Practice in Early Childhood Programs*. National Association for the Education of Young Children, Washington D.C.

Costa, A.L. and Kallick, B. (2000). *Habits of mind: A developmental series*. Alexandria, VA: Association for Supervision and Curriculum Development.

Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the crossfire*. Clevedon, England: Multilingual Matters.

Curtis, D., & Carter, M. (1996). *Reflecting children's lives: A handbook for providing a child-centered curriculum*. Beltsville, MD: Gryphon House.

- Curtis, S. (1992). *Joy of movement in early childhood*. New York: Teachers College Press.
- Darling-Hammond, L. (2001). *The right to learn: A blueprint for creating schools that work*. San Francisco: Jossey-Bass.
- Davis, M., Kilgo, J., & Gamel-McCormick, M. (1998). *Young children with special needs: A developmentally appropriate approach*. Boston: Allyn & Bacon.
- Delpit, L. D., & Dowdy, J. K. (Eds.). (2002). *The skin that we speak: Thoughts on language and culture in the classroom*. New York: New Press.
- Derman-Sparks, L., Phillips, C. B., & Hilliard, A. G. (1997). *Teaching/learning anti-racism: A developmental approach*. New York: Teachers College Press.
- Devries, R., & Zan, B. (1994). *Moral classrooms, moral children: Creating a constructivist atmosphere in early education*. New York: Teachers College Press.
- Dewey, J. (1991). *The school and society: The child and the curriculum*. Chicago: University of Chicago Press.
- Dewey, J. (1997). *Democracy and education*. New York: Simon & Schuster.
- Dodge, D. T., Colker, L. J., & Heroman, C. (2002). *The creative curriculum for preschool* (4th ed.). Washington, DC: Teaching Strategies.
- Dombro, A.L., Jablon, J. and Stetson, C. (2011). *Powerful Interactions: How to connect with children to extend their learning*. Washington, DC: National Association for the Education of Young Children.
- Edelman, M. W. (1993). *Measure of our success: A letter to my children and yours*. New York: Harper Press.
- Edwards, C. (2001). *Creative arts: A process approach for teachers and children*. Upper Saddle River, NJ: Prentice Hall.
- Edwards, C., Gandini, L., Forman, G. (Eds.). (1998). *The hundred languages of children: The Reggio Emilia approach—advanced reflections*. Westport, CT: Greenwood Publishing Group.
- Egan, K. (1998). *The educated mind: How cognitive tools shape our understanding*. Chicago: University of Chicago Press.
- Elias, M., Schwab-Stone, M. E., Shriver, T. P., Greenberg, M. T., Weissberg, R. P., Frey, K. S., Kessler, R., Zins, J. E., & Haynes, N. M. (2000). *Promoting social and emotional learning: Guidelines for educators*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Elkind, D. (1981). *The hurried child*. Reading, MA: Addison-Wesley.

Elkind, D. (2001). *Hurried child: Growing up too fast too soon* (3rd ed.). Cambridge, MA: Perseus Books Group.

Epstein, A.S. (2007). *The intentional teacher: Choosing the best strategies for young children's learning*. Washington, DC: NAEYC.

Erikson, E. (1993). *Childhood and society*. New York: Norton.

Fillmore, L. W. (1991). When Learning a Second Language Means Losing the First. *Early Childhood Research Quarterly*, 6(3), 323-347.

Fillmore, L. W. (2000). Loss of family languages: Should educators be concerned? *Theory into Practice*, 39(4), 203-210.

Forman, G. (1990). *Constructive play: Applying Piaget in the preschool*. Reading, MA: Addison-Wesley.

Fox, M. (2001). *Reading magic: Why reading aloud to our children will change their lives forever*. Boston: Harcourt.

Fraser, S., & Gestwicki, C. (2001). *Authentic childhood: Experiencing Reggio Emilia in the classroom*. Clifton Park, NY: Delmar Thomson Learning.

Froebel, F. (1974). *Education of man*. New York: Kelley, Augustus M., Publishers.

Froebel, F. (1896). *Pedagogics of the kindergarten*. (J. Jarvis, Trans.). New York: Appleton.

Galinsky, E. (2010.) *Mind in the Making: The seven essential life skills every child needs*. Washington, DC: National Association for the Education of Young Children

Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Gardner, H. (2000). *The disciplined mind: Beyond facts and standardized tests, the K-12 education that every child deserves*. New York: Penguin Books.

Gardner, H. (2000). *Intelligence refrained: Multiple intelligences for the 21st century*. New York: Basic Books.

Gardner, H, Feldman, D. H. & Krechevsky, M. (Eds.). (1998). *Project Zero frameworks for early childhood education, Vol. 1. Building on children's strengths: The experience of project spectrum*. New York: Teachers College Press.

Goodman, K., Goodman, Y., Meredith, R., & Smith, E. B. (1987). *Language and thinking in school: A whole-language curriculum*. Katonah, NY: Richard C. Owen.

Greenspan, S., & Salmon, J. (1996). *Challenging child: Understanding, raising, and enjoying the five "difficult" types of children*. Cambridge, MA: Perseus Publishing.

- Gould, P., & Sullivan, J. (1999). *The inclusive early childhood curriculum: Easy ways to adapt learning centers for all children*. Beltsville, MD: Gryphon House.
- Graves, D., & Bird, L. B. (2000). *Bring life into learning: Create a lasting literacy*. Portsmouth, NH: Heinemann.
- Hakuta, K., & August, D. (Eds.) (1998). *Educating language-minority children*. Washington, DC: National Academy Press.
- Harms, Thelma and Clifford, Richard M. and Cryer, Debby (2005). *Early Childhood Environmental Rating System*. Teachers College Press, New York.
- Haugland, S., & Wright, J. L. (1997). *Young children and technology: A world of discovery*. Boston: Allyn and Bacon.
- Helm, J., & Katz, L. (2000). *Young investigators: The project approach in the early years*. New York: Teachers College Press.
- Heroman, C., Burts, D., Berke, K. and Bickart, T. (2010). *Teaching Strategies GOLD. Objectives for Development & Learning, Birth Through Kindergarten*. Washington, DC: Teaching Strategies.
- Hohmann, M. (1995). *Educating young children*. Ypsilanti, MI: High Scope Press.
- Hohmann, M., Banet, B., & Weikart, D. (1979). *Young children in action: A manual for preschool educators*. Ypsilanti, MI: The High Scope Press.
- Hohmann, M., & Weikart, D. (1995). *Educating young children: Active learning practices for preschool and child care programs*. Ypsilanti, MI: The High Scope Press.
- Hyson, Marilou (2008). *Enthusiastic and Engaged Learners*. Teachers College Press, New York.
- Hyson, M. (2008). *Enthusiastic and engaged learners: Approaches to learning in the early childhood classroom*. New York: Teacher's College Press and Washington, DC: National Association for the Education of Young Children.
- Isbell, R. (2002). *Creative arts for young children*. Boston: Thomson Learning.
- Isenberg, J. P., & Jalongo, M. R. (1997). *Major trends and issues in early childhood education: Challenges, controversies, and insights*. New York: Teachers College Press.
- Jalongo, M. R. (2008). *Learning to listen, listening to learn*. Washington, DC: National Association for the Education of Young Children.
- Jensen, E. (1998). *Teaching with the brain in mind*. Alexandria, VA: Association for Supervision & Curriculum Development.

- Jones, E., & Reynolds, G. (1992). *The play's the thing: Teachers' roles in children's play*. New York: Teachers College Press.
- Jones, E., & Nimmo, J. (1994). *Emergent curriculum*. Washington, DC: National Association for the Education of Young Children.
- Kaiser, B., & Rasminsky, J. S. (1999). *Meeting the challenge: Effective strategies for challenging behaviors in early childhood environments*. Ottawa, Ontario: Child Welfare League of Canada.
- Kamii, C., & Housman, L. B. (1999). *Young children reinvent arithmetic: Implications of Piaget's theory* (2nd ed.). New York: Teachers College Press.
- Karr-Morse, R., & Wiley, . S. (1999). *Ghosts from the nursery: Tracing the roots of violence*. New York: Grove/Atlantic.
- Katz, L., & Chard, S. (2000). *Engaging children's mind: The project approach* (2nd ed.). Westport, CT: Greenwood Publishing Group.
- Klugman, E., & Smilansky, S. (Eds.). (1990). *Children's play and learning: Perspectives and policy implications*. New York: Teachers College Press.
- Kohn, A. (1999). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes*. Boston: Houghton Mifflin.
- Kostelnik, M. J., Onaga, E., Whiren, A., & Rohde, B. (2002). *Children with special needs: Lessons for early childhood professionals*. New York: Teachers College Press.
- Kranowitz, C. (1998). *The out-of-sync child: Recognizing and coping with sensory integration dysfunction*. New York: Skylight Press.
- Krogh, S., & Slentz, K. (2001). *The early childhood curriculum*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Kurcinka, M. (1998). *Raising the spirited child workbook*. New York: Harper Collins.
- Lay-Dopera, M., & Dopyera, J. E. (2000). *Teaching in early childhood programs* (5th ed.). New York: McGraw Hill.
- Landry, S. (2002). *Pathways to competence: Encouraging healthy social and emotional development in young children*. Baltimore, MD: Paul H. Brookes.
- Lewis, C. (1994). *Educating hearts and minds: Reflections on Japanese preschool and elementary education*. New York: Cambridge University Press.
- Logsdon, B. (Ed.), Alleman, L., Belka, D., Sakola, S., & Clark, D. (1997). *Physical education unit plans for preschool-kindergarten: Learning experiences in games, gymnastics, and dance*. Champaign, IL: Human Kinetics Publishers

- McCall, R. M., & Craft, D. H. (2000). *Moving with a purpose: Developing programs for preschoolers of all abilities*. Champaign, IL: Human Kinetics Publishers.
- McClelland, M. M., Acock, A.C., & Morrison, F.J. (2006). The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school. *Early Childhood Research Quarterly, 21* (4), 471-490.
- McCluskey, A. T., & Smith, E. M. (2002). *Mary McLeod Bethune: Building a better world, essays and selected documents*. Bloomington, IN: Indiana University Press.
- Meier, D. (1995). *The power of their ideas: Lessons for America from a small school in Harlem*. Boston: Beacon Press.
- Meisels, S. J., Jablon, J., Marsden, D. B., Dichtelmiller, M. L., & Dorfman, A. (1994). *The work sampling system*. Ann Arbor, MI: Rebus Planning Associates.
- Miller, E. and Almon, J. (2009). *Crisis in the kindergarten: Why children need to play in school*. College Park, MD: Alliance for Childhood.
- Miller, K. (1996). *The preschool teacher's crisis manual*. Beltsville, MD: Gryphon House.
- Mitchell, A., & David, J. (Eds.). (1992). *Explorations with young children: A curriculum guide from the Bank Street College of Education*. Beltsville, MD: Gryphon House.
- Monighan-Nourot, J., Hoorn, J. V., Scales, B., & Almy, M. (1990). *Looking at children's play: A bridge between theory and practice*. New York: Teachers College Press.
- Montessori, M. (1988). *Dr. Montessori's own handbook: A short guide to her ideas and materials*. New York: Schocken Books.
- Montessori, M. (1995). *The absorbent mind*. New York: Henry Holt Publishers.
- Mooney, C. G. (2000). *Theories of Childhood: An introduction to Dewey, Montessori, Erickson, Piaget, and Vygotsky*. St. Paul, MN: Redleaf Press.
- Morrow, L. M., Smith, J. K., Wilkinson, L. (1993). *Integrated language arts controversy to consensus*. Boston: Allyn & Bacon.
- Morrow, Lesley Mandal (2007). *Developing Literacy in Preschool*. The Guilford Press, New York.
- Morrow, Lesley Mandal (2013). *Teaching with the Common Core Standards for English Language Arts: PK-2*. The Guildford Press, New York.
- Morrow, Lesley Mandal (2004). *Using Children's Literature in Preschool*. International Reading Association.

- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA.
- National Education Goal Panel (1997) *Getting a good start in school*. Washington, D.C. US Government Printing Office.
- National Mathematics Advisory Panel. (2008). *Foundations for Success*.
- National Reading Panel. (2000). *Report of the National Reading Panel*. Washington, DC: National Institute of Child Health and Development. Online: <http://www.nationalreadingpanel.org>
- National Reading Panel (2000). *Teaching Children to Read*. National Institute of Child Health and Human Development, Washington, D.C.
- National Research Council, Bowman, B., Donovan, M., & Burns, M. (Eds.) (2000). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press.
- National Research Council of the National Academies. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity 2009*.
- Nemeth, K.N. (2012). *Basics of Supporting Dual Language Learners*. Washington, DC: National Association for the Education of Young Children.
- Neugebauer, B. (Ed.) (2006). *Curriculum: Art, music, movement and drama*. Redmond, WA: Exchange Press.
- Neuman, Susan B. and Copple, Carol and Bredekamp, Sue (2008). *Learning to Read and Write: Developmentally Appropriate Practices for Young Children*. National Association for the Education of Young Children, Washington D.C.
- Odom, S., & McLean, M. (1993). *DEC recommended practices: Indicators of quality in programs for infants and young children with special needs and their families*. Reston, VA: Council for Exceptional Children.
- Ovando, C. J., & Collier, V. P. (1997). *Bilingual and ESL classrooms: Teaching in multicultural contexts*. New York: McGraw Hill.
- Owocki, G. (2001). *Make way for literacy: Teaching the way young children learn*. Portsmouth, NH: Heineman.
- Owocki, G. (1999). *Literacy through play*. Portsmouth, NH: Heinemann
- Owocki, Gretchen (1999). *Literacy through Play*. Heinemann, Portsmouth, NH.
- Paley, V. G. (2000). *The kindness of children*. Cambridge, MA: Harvard University Press.

- Paley, V. G. (2000). *White teacher*. Cambridge, MA: Harvard University Press.
- Parker, P. J. (1997). *Courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco: Jossey-Bass.
- Pelo, A., & Davidson, F. (2000). *That's not fair! Teacher's guide to activism with young children*. St. Paul, MN: Redleaf Press.
- Pestalozzi, (1973). *How Gertrude teaches her children*. New York: Gordon Press Publishers.
- Pestalozzi, J. (1985). *Leonard and Gertrude: A pedagogical treatise*. Albuquerque, NM: American Classical College Press.
- Piaget, J. (1974). *Origins of intelligence in children*. Madison, CT: International Universities Press.
- Piaget, J. (2001). *The psychology of intelligence*. New York: Taylor & Francis.
- Pianta, Robert C. and LaParo, Karen M. and Hamre, Bridget K. (2009). *Pre-K Classroom Assessment Scoring System*. Brooks Publishing, Baltimore.
- Rabow, J., Chin, T., & Fahiman, N. (1999). *Tutoring matters: Everything you always wanted to know about how to tutor*. Philadelphia: Temple University Press.
- Raines, S., & Canady, R. J. (1990). *The whole language kindergarten*. New York: Teachers College Press.
- Reed, S. K. (1999). *Word problems: Research and curriculum reform*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Rencken, E., Jones, E., & Evans, K. (2001). *The lively kindergarten: Emergent curriculum in action*. Washington, DC: National Association for the Education of Young Children.
- Reviews of the current preschool standards in the states of Washington, Maryland, Pennsylvania, Connecticut, California, Virginia, Illinois, Oregon, North Carolina, Delaware, Wisconsin, Colorado, New Mexico, and Massachusetts.
- Richer, D. D. & Wheeler, J. (1999). *Inclusive early childhood education: Merging positive behavioral supports, activity-based intervention, and developmentally appropriate practice*. Clifton Park, NY: Delmar Thomson Learning.
- Rodd, J. (1996). *Understanding young children's behavior*. New York: Teachers College Press.
- Roskos, Kathleen A. and Christie, James F. and Ricaels, Donald J. (2003). *The Essentials of Early Literacy Instruction, National Association for the Education of Young Children, Washington D.C.*

- Roskos, Kathleen A. and Tabors, Patton O. and Lenhart, Lisa A. (2005). *Oral Language and Early Literacy in Preschool*, International Reading Association.
- Rousseau, J-J. (1992). *Emile*. Boston: Tuttle Publishing.
- Sandall, S., McLean, M., & Smith, B. (2000). *DEC recommended practices in early intervention/early childhood special education*. Arlington, VA: Council for Exceptional Children.
- Scarlett, W. G. (1997). *Trouble in the classroom: Managing the behavior problems of young children*. San Francisco: Jossey-Bass.
- Schickendanz, J. A. (1999). *Much more than the ABCs: The early stages of reading and writing*. Washington, DC: National Association for the Education of Young Children.
- Schickendanz, J. A., Pergantis, M. L., & Kanosky, J. (1996). *Curriculum in early childhood: Themes and practices*. Boston: Allyn and Bacon.
- Shonkoff, J., & Phillips, D. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Siegel, J. (2002). The community scholar. *Harvard Magazine*, 104(3), 50-54.
- Sizer, T. R., & Sizer, N. F. (2000). *Students are watching: Schools and the moral contract*. Boston: Beacon Press.
- Smith, Miriam W. and Brady, Joanne P. and Anastasopoulos, Louisa (2008). *Early Language and Literacy Classroom Observation (ELLCO)*. Brooks Publishing, Baltimore.
- Smith, N. R., Fucigna, C., Kennedy, M. T., & Lord, L. (1993). *Experience and art: Teaching children to paint*. New York: Teachers College Press.
- Snow, C., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Soderman, A. K., Gregory, K. M., & O'Neill, L. T. (1999). *Scaffolding emergent literacy: A child-centered approach for preschool through grade 3*. Upper Saddle River, NJ: Prentice Hall.
- Smith, F. (1991). *To think*. New York: Teachers College Press.
- Smith, F. (1997). *Reading without nonsense*. New York: Teachers College Press.
- Sprenger, M. (1999). *Learning and memory: The brain in action*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Strickland, Dorothy S. and Schickedanz, Judith A. (2004). *Learning About Print in Preschool*, International Reading Association.

Strickland, Dorothy S. and Riley-Ayers, Shannon (2007). *Literacy Leadership in Early Childhood*, Teachers College Press, New York.

Schickedanz, Judith A. and Casbergue, Judith A. (2004). *Writing in Preschool*, International Reading Association.

Task Force on Children's Learning and the Arts: Birth to Age Eight. (1998). *Young children and the arts: Making creative connections*. Washington, DC: Arts Education Partnership.

The joint position statement of the National Association for the Education of Young Children (NAEYC) and the National Council for Teachers of Mathematics (NCTM), *early Childhood Mathematics: Promoting Good Beginnings*

The National Council for Teachers of Mathematics (2000). *Principles and Standards for School Mathematics* (PSSM) and its six overarching principles – equity, curriculum, teaching, learning, assessment, and technology.

The National Council for Teachers of Mathematics (2006). *Curriculum Focal Points* National Mathematics Advisory Panel. (2008). *Foundations for Success*.

National Research Council of the National Academies. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity 2009*.

The Joan Ganz Cooney Center at Sesame Workshop and Stanford University. (Fall 2011) *Take a giant step: A blueprint for teaching young children in a digital age*.

Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision & Curriculum Development.

Tomlinson, C., & Allan, S. (2000). *Leadership for differentiating schools and classrooms*. Alexandria, VA: Association for Supervision & Curriculum Development

Tomlinson, H.B and Hyson, M., (2012). Cognitive development in the preschool years. In C. Copple (Ed.), *Growing minds: Building strong cognitive foundations in early childhood*. pp. 13-24. Washington, DC: National Association for the Education of Young Children.

Trott, M., Laurel, M., & Windeck, S. (1993). *SenseAbilities: Understanding sensory integration*. Tuscan, AZ: Therapy Skill Builders.

Vygotsky, L. S. (1986). *Thought and language* (Rev. ed). Cambridge, MA: MIT Press.

Vygotsky, L. S. (1990). *Mind in society*. Cambridge, MA: Harvard University Press.

Wadsworth, B. (1995). *Piaget's theory of cognitive and affective development: Foundations of constructivism*. Boston: Longman Publishers.

- Wasserman, S. (2000). *Serious players in the primary classroom: Empowering children through active learning experiences* (2nd ed.). New York: Teachers College Press.
- Weikart, D., & Schweinhart, L. (1997). *Lasting differences: The High/Scope preschool curriculum comparison study through age 23*. Ypsilanti, MI: High/Scope Press.
- Wilson, C. (2000). *Telling a different story: Teaching and literacy in an urban preschool*. New York: Teachers College Press.
- Winn, M. (1981). *Children without childhood*. New York: Pantheon Books.
- Wolfe, P. (2001). *Brain matters: Translating research into classroom practice*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Wong, H. (1998). *The first days of school: How to be an effective teacher*. Mountain View, CA: Harry Wong Publishers.
- Wood, C., & Wrenn, P. (1999). *Time to teach, time to learn: Changing the pace of school*. Greenfield, MA: Northeast Foundation for Children.
- Zigler, E. (1994). *Head start: The inside story of America's most successful educational experiment*. New York: Basic Books.

The following standards informed our Approaches to Learning Standards:

- Early Childhood Indicators of Progress: Minnesota's Early Learning Standards*. (2005).
- Good Start Grow Smart: Approaches to Learning*. South Carolina Early Learning Standards for 3, 4 & 5 Year –Old Children. (Revised 2009).
- Head Start *Approaches to Learning* (Domain 7).
- Iowa Early Learning Standards. *Approaches to Learning*. pp. 61-66.
- Nebraska Early Learning Guidelines for Ages 3 to 5. (Revised 2005)
- New Jersey Birth to Three Early Learning Standards. (Draft 2012.)
- Pennsylvania Learning Standards for Early Childhood. (Revised 2009)
- Rhode Island Early Learning Standards. (2003)

Organizations and Agencies

The American Academy of Pediatrics
141 Northwest Point Boulevard
Elk Grove Village, IL 60007-1098
<http://www.aap.org/default.htm>

Association Montessori
Internationale Koninginneweg 161

1075 CN Amsterdam
The Netherlands
<http://www.montessori-ami.org>

The Center for the Child Care Workforce
733 15th Street, NW Suite 1037
Washington, DC 20005-2112
<http://www.ccw.org/index.html>

The Center for Early Childhood Leadership, National-Louis University
6310 Capitol Drive
Wheeling, IL 60090
<http://www2.nl.edu/twal/index.htm>

Child Care Bureau
U.S. Department of Health and Human Services
The Administration for Children and Families
Regional Office
26 Federal Plaza, Room 4114
New York, NY 10278
<http://www.acf.hhs.gov/programs/ccb/>

Children's Defense Fund
25 E Street, NW
Washington, DC 20001
<http://www.childrensdefense.org/>

Children's Resources International, Inc.
5039 Connecticut Avenue, NW Suite One
Washington, DC 20008
<http://www.childrensresources.org/>

New Jersey Department of Education
Division of Early Childhood Education
P.O. Box 500
Trenton, NJ 08625-0500
<http://www.state.nj.us/njded/ece/>

The Future of Children
The David and Lucile Packard Foundation
300 Second Street, Suite 200
Los Altos, CA 94022
<http://www.futureofchildren.org>

Generations United
122 C Street, NW Suite 820
Washington, DC 20001

<http://www.gu.org/>

National Association for the Education of Young Children
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Washington, DC 20036-1426

<http://www.naeyc.org>

National Association for Family Child Care
5202 Pinemont Drive
Salt Lake City, UT 84123

<http://www.nafcc.org/>

National Center for Early Development and Learning
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-8185

<http://www.fpg.unc.edu/~ncedl/>

The National Child Care Information Center
U.S. Department of Health and Human Services
The Administration for Children and Families
243 Church Street, NW 2nd Floor
Vienna, VA 22180

<http://nccic.acf.hhs.gov/>

National Head Start Association
1651 Prince Street
Alexandria, VA 22314

<http://www.nhsa.org/>

National Institute on Early Childhood Development and Education
Office of Educational Research and Improvement
U.S. Department of Education
555 New Jersey Avenue, NW
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<http://www.ed.gov/offices/OERI/ECI/index.html>

New Jersey Center for Professional Development for Early Care and Education
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100 River View Plaza
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