

Florida Voluntary Prekindergarten Education Standards



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This document was developed under the auspices of the Florida Department of Education, Office of Early Learning, to disseminate the Florida Voluntary Prekindergarten (VPK) Education Standards, adopted by the Florida State Board of Education on August 19, 2008, consistent with the requirements of Section 1002.67, Florida Statutes.

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Purpose

The *Florida Voluntary Prekindergarten Education Standards (Florida VPK Education Standards)* describe **skills** that four-year-old children should know and be able to do by the end of their VPK year. They are designed to guide prekindergarten administrators and teachers in designing and implementing appropriate early learning environments. Working with young children requires knowledge and competence regarding early childhood growth and development, as well as a recognition of the diversity children present (e.g., racial, ethnic, cultural, economic, language, and social background differences). Although families and communities are most influential, quality early learning environments are associated with improved cognitive, social, and language **skills**. With a sound understanding of what children know and are able to do, which is the focus of this document, teachers are able to individualize curriculum and create the kinds of quality environments that move children toward kindergarten ready to learn.

The mission of the *Florida VPK Education Standards* is found in Section 1(b), Article IX of the State Constitution:

*Every four-year old child in Florida shall be provided by the State a high quality prekindergarten learning opportunity in the form of an early childhood development and education program which shall be voluntary, high quality, free, and delivered according to professionally accepted standards. An early childhood development and education program means an organized program designed to address and enhance each child's ability to make age appropriate progress in an appropriate range of settings in the development of language and cognitive capabilities and emotional, social, regulatory and moral capacities through education in basic **skills** and such other **skills** as the Legislature may determine to be appropriate.*

Knowledge of typical growth and development must be complemented with recognition and understanding of individual and family factors that influence child development. Each child has a unique natural disposition that shapes behavior and influences relationships. Differences in **temperament** are manifest in activity level, biological rhythm, approach/withdrawal, mood, intensity of reaction, sensitivity, adaptability, distractibility, and **persistence**. Each child is part of a family that is nested in a cultural system. In many prekindergarten settings, there will be children from cultures different from that of the teacher, and several languages may be represented. Children may also differ in health and nutritional status, their breadth of experiences prior to entering VPK, their zest for learning, and motor abilities, and they may have conditions that limit or create variations in the way they learn. Teachers that recognize these differences are more likely to develop positive relationships with children and their families and provide instruction that creates optimal learning environments.

The *Florida VPK Education Standards* reflect the ways four-year-olds think, recreate, reason, and create as they engage in the learning process. The standards cannot take into account individual variations in development and should not be thought of as absolutes. The focus on age-appropriate expectations should be interwoven with attention to individual appropriateness and differences. It is important to remember that not all four-year-olds will attain all of the standards by age five or kindergarten entry.

Purpose (continued)

The *Florida VPK Education Standards* will be most helpful when used to optimize the daily experiences of VPK children. Their uses may include:

- creating a shared framework and common language to understand how four-year-old children learn and grow
- setting realistic expectations for four-year-old children
- understanding the sequence of development across multiple domains and the important factors that influence development
- creating safe, appropriate, and stimulating environments for four-year-old children
- guiding the selection of toys, curricula, equipment, and materials
- improving classroom instruction
- providing preservice and inservice training for prekindergarten teachers
- refining professional preparation programs.

Background

In 2004, the Florida Legislature enacted legislation to implement the Voluntary Prekindergarten (VPK) Education Program, in accordance with the State Constitution. The legislation assigns responsibilities for the day-to-day management of the program to the Agency for Workforce Innovation (AWI); licensing and credentialing to the Department of Children and Families (DCF); and the creation of standards, curriculum, and accountability to the Department of Education (DOE). All three agencies are working together to provide leadership and support to local early learning coalitions, school districts, and public and private providers to ensure the successful implementation of effective prekindergarten education programs for Florida’s four-year-old children.

The implementing legislation provided for the VPK program to be available beginning in fall 2005 for all children who are four years old by September 1. The program may be delivered by private, faith-based, or public schools that meet eligibility requirements. It includes both a school-year and a summer option, with different requirements for each in terms of class size, instructor to student ratios, total instructional hours, and qualifications of personnel. (See Part V, “Voluntary Prekindergarten Education Program,” Chapter 1002, Florida Statutes.)

VPK providers may select or design their curriculum to implement the VPK program. However, the curriculum must be developmentally appropriate and be designed to prepare children for early **literacy**, enhance the age-appropriate progress of children in attaining the state-adopted performance standards, and prepare children to be ready for kindergarten based on the statewide kindergarten screening. Providers may select or design their VPK curriculum, unless on probation for continued failure to meet kindergarten readiness rates. The DOE reviews and approves curricula for use by providers who are placed on probation, and maintains a list of such curricula.

The DOE adopted minimum standards for training in **emergent literacy** for VPK instructors, effective April 11, 2005. *Emergent Literacy for VPK Instructors* is an online course comprised of five clock hours of training. It provides instruction in strategies and techniques to support the age-appropriate progress of prekindergarten children in developing *emergent literacy* skills, including oral communication, knowledge of print and letters, phonemic and phonological awareness, and **vocabulary** and **comprehension** development. It also provides resources to allow children with disabilities and other special needs to derive maximum benefit from the VPK program.

Public or private providers delivering the school-year VPK program must meet requirements that include having, for each prekindergarten class, at least one instructor who holds a Child Development Associate (CDA) credential or state-approved equivalent, and successfully completes a DOE-approved **emergent literacy** training course. (This is the minimum qualification; other educational credentials, including specified degrees, may be substituted.)

Background (continued)

The *VPK Education Standards (2005)* were the result of a collaborative review of the *Florida School Readiness Performance Standards (2002)* with experts in the areas of early childhood, with a research emphasis on **emergent literacy** and early learning practitioners. This collaborative review concluded that the existing standards were adequate but needed additional explanatory language and indicators. The original *Language and Communication* domain was separated into two domains, *Language and Communication* and *Emergent Literacy*, with revisions to the standards and the addition of benchmarks. On March 15, 2005, the State Board of Education approved the *VPK Education Standards (2005)* and committed to a review of these standards every three years.

The Department established a Panel of Experts, who met on December 17-18, 2007, to ensure that the 2008 review of the *VPK Education Standards (2005)* was based on the most current research and evidence-based, effective practice in the fields of early childhood education, mathematics, and science. The panel conducted a critical review of the current standards in the domain of Cognitive Development and General Knowledge, with emphasis on the component of Mathematical Thinking.

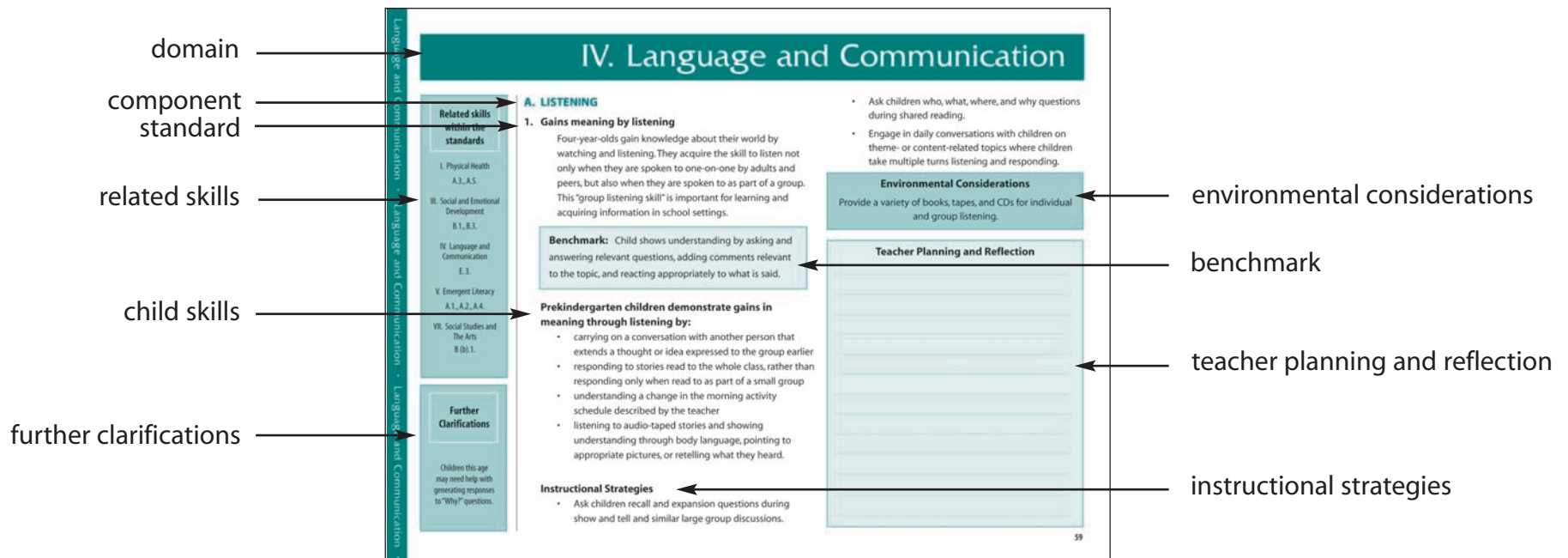
In the original *VPK Education Standards (2005)*, the *Cognitive Development and General Knowledge* domain included four areas: mathematics, scientific thinking, social studies, and the arts. In order to bring focus to all four components, the domain was separated into two domains, *Mathematical and Scientific Thinking*, and *Social Studies and The Arts*, and benchmarks were added for the Mathematical Thinking component.

The *Florida VPK Education Standards (2008)* were formally adopted by the State Board of Education on August 19, 2008. These standards create a common framework and language to ensure the “high-quality prekindergarten learning opportunity” for Florida’s four-year-old children.

How to Use the *Florida VPK Education Standards*

The *Florida VPK Education Standards* are based on what we know about children, including what they should know and be able to do along a continuum of development. Four-year-old children will typically demonstrate the **skills** included in the standards by the end of the VPK year. The *Florida VPK Education Standards* are grouped around eight areas of development, including:

- Physical Health
- Approaches to Learning
- Social and Emotional Development
- Language and Communication
- Emergent Literacy
- Mathematical and Scientific Thinking
- Social Studies and The Arts
- Motor Development.



How to Use the *Florida VPK Education Standards* (continued)

The **domains**, or areas of development, are a useful way to look at areas of developmental progression of related **skills** and abilities for four-year-old children. They are identified with a capital Roman numeral (e.g., I, II, III). Each domain begins with a description and overview, followed by the standards that describe what children should know and be able to do in that area of development during the prekindergarten year. Each domain is further divided into components, areas (where applicable), standards, and, where appropriate, benchmarks. Each standard and benchmark also includes examples of child **skills**, instructional strategies, and environmental considerations. All child **skills**, instructional strategies, and environmental considerations are meant to be representative examples, not exhaustive lists or required **skills**.

Components are the organizing concepts of each domain and represent the major topics to be addressed during the prekindergarten year. They are identified in the color of the domain with a capital letter (e.g., A, B, C). The domains of *Mathematical and Scientific Thinking* and *Social Studies and The Arts* also have **areas** that are more precise in organizing the types of **skills** to be learned.

Standards are expectations of what children should know and be able to do by the end of the VPK year, and are identified by a numeral (e.g., 1, 2, 3). A description of each standard is also provided. In three domains, *Language and Communication*, *Emergent Literacy*, and *Mathematical and Scientific Thinking*, benchmarks for development are included. **Benchmarks** are more precise than the standards and are set to reflect the level of skill and knowledge that should be demonstrated by a child at the end of their VPK experience (when most, if not all, of the children would be five years of age). The purpose of these benchmarks is to set goals for children that maximize their chances for success during kindergarten, first grade, and later instruction related to oral and written communication, reading, writing, and mathematical thinking **skills**. Stated another way, the level of skill expected within the benchmark reflects where a child this age would be who is likely to have future success in learning to communicate orally, to read, write, and complete math on grade level.

Setting the benchmarks in this way means that, especially at first, many children may not achieve the defined level of skill and knowledge. This is to be expected given the different characteristics, backgrounds, and experiences of the children in prekindergarten, all of which can affect their rate of development in these domains. The point of setting standards and benchmarks is to identify children in need of additional instruction or intervention to help them be successful in achieving future goals. Standards and benchmarks can assist instructors in **planning** instruction and provide guidance when meeting with a child's family to discuss expectations and growth. Benchmarks that are set so low that all children would currently meet them would not be good indicators of the skill levels children need to readily master their next academic goals. Similarly, benchmarks set well beyond the developmental capabilities of a typical five-year-old child would not be helpful. These current benchmarks are "just right"—challenging for many children but well within the reach of most children, and designed to set them all on the path toward future success.

Listed below each standard (or benchmark, if applicable) are **child skills** that teachers might observe as evidence of a child's

How to Use the *Florida VPK Education Standards* (continued)

achievement of the standard. As stated previously, the examples are not exhaustive; they illustrate some of the many ways in which the accomplishment of the standard may be demonstrated. The examples include representations of behaviors that may emerge at various points during the prekindergarten year. Individual children may show some but not all of the behaviors included in the examples and may demonstrate other behaviors that also are characteristic of their age and development and reflect achievement of the standard. Similar examples appear in several domains (as noted in the **related skills** box on the left-side of the page) and reflect the fact that the same behavior may indicate progress and learning in more than one area of development.

Examples of **instructional strategies** are also included and are located below the child **skills**. These examples are intended to guide teachers in understanding how the standards might be applied to curriculum and classroom **planning** and activities. **Environmental considerations** follow the instructional strategies. This information includes suggestions regarding room arrangement and classroom materials and equipment. **Further clarifications** are provided on the left side of each page to help teachers understand more about the standard or where the standard falls in a typical developmental progression. On the right side of the page is a space for **teacher planning and reflection**. Teachers will gain the most from the standards if they take time to reflect on how the standards relate to the curriculum they use in the classroom, daily classroom activities, and their professional development. Teachers are encouraged to jot down ideas for future use in this space. Terms that appear in bold italic are defined at the end of each domain. The glossary found at the end of the book also includes definitions of all these terms.

It is important to remember that, although individual development proceeds through a predictable sequence of milestones, there may be wide variations in the pace at which milestones are achieved. The lack of behaviors that correspond to a specific example should not be viewed with great significance; rather, teachers should consider the full range of developmental behaviors. Significant delays or interruptions in the sequence of milestones are signals for further assessment and evaluation, keeping in mind that children who are born early, with disabilities or delays, may reflect the achievement of the standards in ways that are unique to their strengths and challenges.

Using the *Florida VPK Education Standards* with Diverse Learners (continued)

- use children's current strengths and **skills** as the starting point for new experiences and instruction; build on what they know to expand and extend their language **skills**
- provide instruction in a manner that children can understand, consistent with their proficiency level in English
- interact in meaningful ways and use language related to the immediate early learning situation
- establish a consistent **set** of routines for children and provide cues for what they should do when
- support communication by using words along with gestures or actions; use repetition
- recognize that children may communicate nonverbally (through gestures) before they begin to produce words and phrases in English
- help children listen purposefully to English-speaking teachers and children to gather information about their new language
- help children experiment with the sounds and **intonation** of the English language
- help children increase their listening **vocabulary** and begin to develop a **vocabulary** of object names and common phrases in English
- ensure that children are included in group activities
- help children feel secure and competent so they will be more likely to interact and communicate with children and adults
- recognize that the more opportunities children have to participate, the more their language and communication **skills** will develop.

It is important to note that although some **phonological awareness** skills appear to transfer between languages (e.g., **skills** in a first language help the child develop and demonstrate the same **skills** in a second language), some basic proficiency in English may be prerequisite to the development of **phonological awareness** in English for second-language learners.

Children with disabilities may need accommodations and/or modifications of expectations and/or experiences to meet their individual needs so that they will be successful in attaining the standards. The following are some general accommodations and modifications that can be made to support diverse learners. This is a sampling of the types of accommodations that might be made. It is not a complete list. Specific strategies are suggested in the introduction to each domain. Many of these strategies can be used by adults to support the growth and learning of all children in all settings:

- provide adaptive equipment and materials when the child needs support
- provide adult assistance/support as the child initiates action, then reduce support when the child shows ability to do some actions independently
- provide opportunities for interaction with typically developing peers
- add new and/or specific activities to meet individual needs

Recommendations for the Early Learning Environment

Designing environments that help children make progress in their learning and development as described in the *Florida VPK Education Standards* requires knowledge, **planning**, **reflection**, and continuous update. Optimal early learning environments are always evolving as children's interests and needs are discovered and nourished. While there are many different ways to design a **developmentally appropriate** environment, there are key elements that should be included in each design. These elements include, but are not limited to, ample spaces and props for dramatic play, development of a schedule that assures a balance of activities and choices, and opportunities for teacher observation and intentionality.

Children learn through their play, and spaces and props for play are an important part of the early learning environment. Studies show the relationship between dramatic play and all domains of development, including foundational and complex cognitive **skills**. Children engaged in "playing house" consider roles and relationships and use self-regulation. They practice their language **skills** and learn about friendships. As children design roadways and buildings in the block area, they compare sizes and shapes, show self-direction, and problem-solve when they run into difficulties. Because play affords children many choices, their approaches to learning **skills** are fostered. They show **eagerness** and **curiosity, persistence, creativity** and **inventiveness**, and **planning** and **reflection** as they make play choices.

Play does not always happen automatically. In today's world, many children spend more time inside and alone and less time playing with peers. Television and video games are often their playmates. Early childhood teachers need to support play development by designing daily schedules that provide ample time for play. Short free-play times are not sufficient; often it takes children 15 minutes simply to get ready to play. Play also needs to afford children opportunities for choices. Activities that are exclusively teacher-directed offer fewer chances for children to practice their developing **skills** and for teachers to observe and **scaffold** learning. A well-planned environment provides children with many ideas and choices to support play development. (See environmental considerations on each page of the standards for suggestions regarding the early learning environment.)

Recognizing and supporting play does not mean that all play is "free," and that the role of the teacher is simply to ensure safety. Teachers have very important responsibilities during play. By carefully observing children during dramatic play, teachers gather important information about learning styles, skill levels, and individual needs and abilities. Observing play becomes the basis for making decisions about hands-on learning experiences, interest **centers**, and appropriate materials. Careful observation and **reflection** enables teachers to add intentionality to their curriculum **planning**. Having watched a child struggle with fastening the doll clothes during play, a teacher can intentionally direct that child to center activities in the afternoon or on another day that promote eye-hand coordination.

Work sheets, drills, or simply allowing children to play without teacher **planning** and **reflection will not** facilitate optimal progress for children. Achievement of the *Florida VPK Education Standards* will be supported in early learning environments where teachers have

Recommendations for the Early Learning Environment (continued)

thoughtfully considered room arrangement, carefully planned a schedule that incorporates ample time for child-directed play and teacher-directed activities, provided children with choices, and included opportunities for observation and **reflection** that guide the teacher's lesson **planning**. Classrooms with these elements provide the foundation for children to thrive and afford them the best opportunity to leave prekindergarten ready for success in kindergarten.



I. Physical Health Standards

A. Physical Health

1. Shows characteristics of good health to facilitate learning
2. Demonstrates visual ability to facilitate learning
3. Exhibits auditory ability to facilitate learning
4. Performs **oral hygiene** routines
5. Shows familiarity with the role of a primary health care provider

B. Knowledge of Wellness

1. Shows that basic physical needs are met
2. Follows basic health and safety rules
3. Participates in physical fitness activities
4. Makes wise food choices
5. Performs some self-care tasks independently

I. Physical Health

Related Skills within the Standards

IV. Language and Communication

B.1., E.1.

V. Emergent Literacy

B.1., B.3., B.4.

VIII. Motor Development

B.1.

Further Clarifications

See Appendix A
for Height
and Weight charts.

See Appendix B
for Body Mass
Index chart.

A. PHYSICAL HEALTH

1. Shows characteristics of good health to facilitate learning

Good general health and adequate development are necessary to optimize learning. Four-year-old children are developing cognitive, language, motor, and social-emotional **skills** that enable them to begin to take some responsibility for health practices. Nonetheless, adults are ultimately responsible for facilitating good health in young children.

Prekindergarten children show characteristics of good health by:

- actively participating in daily events
- coordinating many eye-hand movements
- demonstrating gross motor **skills** such as jumping, galloping, and running.

Instructional Strategies

- Conduct **height and weight assessments** to ensure children have physical stature within the typical range.
- Provide gross motor activities and equipment.
- Perform routine safety checks to model the importance of safety to well-being.

Environmental Considerations

Include a variety of materials and equipment to promote movement, balance, and coordination. Post health and safety procedures (e.g., proper hand washing, first aid, and safety).

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

V. Emergent Literacy

B.1., B.2., B.3., B.4.

VIII. Motor Development

B.2.

Further Clarifications

Comprehensive vision exams can detect vision problems that are frequently missed during early childhood.

A. PHYSICAL HEALTH

2. Demonstrates visual ability to facilitate learning

A great amount of learning in the classroom is dependent upon visual abilities. **Literacy**, art, science, play, and circle time activities require visual **skills**.

Prekindergarten children demonstrate visual ability by:

- using both eyes in coordination
- holding materials at appropriate distance from eyes
- moving eyes rather than head to track objects
- visually focusing on objects without squinting or straining.

Instructional Strategies

- Provide **vision assessments**.
- Create frequent alterations in the classroom materials and activities to increase visual interest.
- Provide **eye-hand coordination** activities (e.g., puzzles, sorting games, lacing cards).

Environmental Considerations

Provide appropriate visual interest. Too little to look at is not stimulating and too much to look at can be distracting. Include a variety of books, reading and writing materials, and other learning props that promote focusing and tracking with the eyes.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

IV. Language and Communication

A.1., B.1.

V. Emergent Literacy

A.4.

VII. Social Studies and The Arts

B(b).1.

Further Clarifications

Chronic ear infections are associated with hearing problems. Comprehensive **auditory assessments** can identify young children with hearing problems that may interfere with language development.

A. PHYSICAL HEALTH

3. Exhibits auditory ability to facilitate learning

A great amount of learning in the classroom is dependent upon auditory **skills** and hearing, especially language development.

Prekindergarten children demonstrate auditory ability by:

- participating in **listening skill activities**
- electing listening center activities
- orienting to a speaker when addressed by name
- producing speech that is generally understandable.

Instructional Strategies

- Provide **auditory assessments**.
- Plan listening activities to assist children in refining attention and listening **skills** (e.g., have children listen to recordings of animal noises and match sounds with animal pictures).
- Read daily and ask frequent, relevant questions to encourage good listening **skills**.

Environmental Considerations

Promote appropriate auditory interest.
Include tapes, CDs, headphones, and many
books to read together.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health
B.1., B.5.

Further Clarifications

Untreated dental cavities have short- and long-term health consequences. Allow children to brush their teeth after breakfast, snack, or lunch.

A. PHYSICAL HEALTH

4. Performs *oral hygiene* routines

Oral health impacts speech, social interaction, appearance, and ability to learn from experiences.

Prekindergarten children demonstrate that they can perform *oral hygiene* routines by:

- recognizing and knowing how to use dental hygiene tools (e.g., toothbrush, floss)
- performing brushing procedures
- performing flossing procedures with assistance
- showing a developing understanding of the relationship between **nutrition** and dental health.

Instructional Strategies

- Provide **dental health assessments**.
- Provide special classroom visitors, field trips, books, and circle time experiences to promote oral health.
- Discuss the importance of good **nutrition** to dental health during snacks and meals.

Environmental Considerations

Include props in dramatic play and books on oral health, as well as toothbrushes for children to brush their teeth after breakfast, snack, or lunch.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health

A.1., B.3., B.5.

VIII. Motor Development

A.1., A.2.

Further Clarifications

In-depth discussions with parents of children with special needs are important to understanding children's health and wellness. Remember that children with special needs are children first.

B. KNOWLEDGE OF WELLNESS

1. Shows that basic physical needs are met

Four-year-old children must have their basic needs met in order to take advantage of learning opportunities. They develop wellness behaviors and **skills** modeled after the adults in their lives.

Prekindergarten children show that their basic physical needs are met by:

- staying awake except during nap time
- choosing clothing that is appropriate to the weather
- showing an understanding of cleanliness
- exhibiting energy typical of their age.

Instructional Strategies

- Provide book, center, and circle time activities about health and wellness needs (e.g., use puppets to demonstrate someone with and without enough sleep).
- Talk with parents frequently regarding children's health and wellness.
- Schedule ample time in the daily schedule to take care of physical health and wellness needs (e.g., hand washing, eating, and napping).

Environmental Considerations

Include signs, supplies, materials, and equipment to promote good health habits.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health
B.4., B.5.

VII. Social Studies and The Arts

A(c).1.

Further Clarifications

See the VPK
Standards Companion
Manual for health and
safety resources.

B. KNOWLEDGE OF WELLNESS

2. Follows basic health and safety rules

Four-year-old children are becoming aware of some health and safety issues. They can begin to learn about their need for food, water, and shelter, and how to keep themselves safe. They enjoy stories about their bodies and other health issues and will discuss these issues with their friends.

Prekindergarten children demonstrate that they can follow basic health and safety rules by:

- trying different foods that are introduced by the teacher as ***nutritious*** and discussing with classmates what “***nutritious***” means
- acting out fire safety procedures (e.g., stop, drop, and roll)
- carrying scissors and pencils with points down to avoid accidents
- washing hands after using the toilet or before snack and lunch
- covering their mouths when coughing.

Instructional Strategies

- Provide food preparation and cooking experiences using ***nutritious*** ingredients.
- Develop, discuss, and regularly review health and safety rules.
- Conduct regular fire and emergency drills.

Environmental Considerations

Provide books on health and safety topics, written safety procedures and maps, health and safety play materials for the dramatic play area, and ***nutritious*** foods for snacks and meals.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health

A.1., B.1.

VIII. Motor Development

A.1., A.2.

Further Clarifications

See Appendix A
for Height and Weight
charts.

See Appendix B
for Body Mass Index
chart.

B. KNOWLEDGE OF WELLNESS

3. Participates in physical fitness activities

Four-year-old children love to move, and children who run, jump, hop, and participate in free play and planned movement activities are more likely to be of an appropriate weight for their height and age. When adults in their environment create opportunities and encourage exercise and movement, children develop good physical fitness habits.

Prekindergarten children show physical fitness by:

- running and jumping during free play playground activities
- participating in planned music and movement activities
- beginning to understand the importance of exercise
- choosing movement activities.

Instructional Strategies

- Include free play in the daily schedule.
- Plan and provide movement activities daily.
- Encourage physical fitness and movement with books, music, play equipment, and conversations (e.g., create an obstacle course on the playground incorporating different pieces of playground equipment and follow up the experience with a book and discussion of the importance of movement during circle time).

Environmental Considerations

Provide props that can be used to support physical fitness both inside and outside (e.g., balls, jump ropes, balance beams, scarves, bean bags).

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health
A.4., B.2.

Further Clarifications

See Appendix D for USDA Food Pyramid and visit <http://www.mypyramid.gov/kids/index.html> for information to use with families (English/Spanish), posters, and lots of other information about using the food pyramid with children.

B. KNOWLEDGE OF WELLNESS

4. Makes wise food choices.

Good **nutrition** is essential to wellness, and four-year-old children are beginning to understand the importance of eating healthy foods. When guided by adults, young children can identify and will choose **nutritious** foods.

Prekindergarten children demonstrate wise food choices by:

- identifying healthy snacks
- participating in preparing **nutritious** foods
- naming many different healthy foods
- talking with classmates about healthy and unhealthy lunch items.

Instructional Strategies

- Plan and provide opportunities for children to help prepare ***nutritious*** foods.
- Invite families to bring in healthy foods for a class picnic.
- Create charts, collages, and bulletin boards of healthy foods, with each child contributing examples of healthy foods through words, photographs, or art work.

Environmental Considerations

Include **nutrition** props for the dramatic play area, snack and meal preparation supplies and equipment, books about **nutrition** issues and choices, and materials to promote good nutrition.

Teacher Planning and Reflection

[illegible]

I. Physical Health

Related Skills within the Standards

I. Physical Health

A.1., A.4., B.1., B.2.

III. Social and Emotional Development

B.1.

IV. Language and Communication

A.2.

VIII. Motor Development

A.2., B.1., B.2.

Further Clarifications

Many four-year-old children will not yet be able to tie shoe laces independently but should be able to ask for assistance.

B. KNOWLEDGE OF WELLNESS

5. Performs some self-care tasks independently

Four-year-old children love performing self-care tasks and daily routines on their own. Sometimes they need guidance to avoid becoming silly or to remember what they are doing. They forget rules easily because they are busy with other thoughts, but they can usually meet expectations after verbal reminders.

Prekindergarten children show independent performance of self-care tasks by:

- using the toilet independently
- washing and drying hands with only occasional reminders
- pouring juice or milk from a small pitcher without spilling
- managing most dressing tasks independently
- zipping, buttoning, and buckling
- using tissues to wipe their nose and throwing the tissues in the wastebasket.

Instructional Strategies

- Post written and pictorial reminders of self-care tasks.
- Create opportunities in the schedule for children to help set up and clean up.
- Develop center activities that provide practice for dressing **skills** (e.g., zipping, buckling, and tying).

Environmental Considerations

Include child-size tools, materials, and equipment to encourage self-help (e.g., small pitchers for juice, low sinks or stools for reaching the sinks).

Teacher Planning and Reflection

[illegible]

Physical Health Glossary

auditory assessments – evaluations that are conducted to determine how well a child can hear.

dental health assessments – evaluations that are conducted to determine how well a child is caring for his/her teeth.

height and weight assessments – evaluations to measure child’s height and weight to determine whether they are within normal (healthy) limits.

knowledge of wellness – understanding that regularly participating in physical activity, eating nutritious foods, and maintaining good hygiene promote good health and well-being (e.g., a child chooses to eat fruits or vegetables because they are healthy food choices, participates in games that involve movement, or washes his/her hands before lunch to remove dirt and germs).

listening skill activities – activities that require the children to listen (e.g., *Simon Says*).

nutrition – the process of absorbing nutrients from food and processing them in the body in order to stay healthy or to grow.

nutritious – containing the nutrients that are necessary for life and growth (e.g., raw fruits and vegetables are nutritious foods).

oral hygiene – keeping the mouth, tongue, teeth, and gums clean (e.g., brushing and flossing daily).

primary health care provider – one’s main physician or advanced registered nurse practitioner who provides annual check ups and other medical care.

vision assessments – evaluations that are conducted to determine how well a child can see.



II. Approaches to Learning

II. Approaches to Learning Standards

A. **Eagerness and Curiosity**

1. Shows ***eagerness*** and ***curiosity*** as a learner

B. **Persistence**

1. Attends to tasks and seeks help when encountering a problem

C. **Creativity and Inventiveness**

1. Approaches tasks with flexibility and ***inventiveness***

D. **Planning and Reflection**

1. Shows some ***planning*** and ***reflection***

II. Approaches to Learning

Although each of the other domains of development reflects specific content knowledge or **skills** that document what children know and can do, Approaches to Learning is not about specific knowledge or **skills**. It is about how these **skills** are acquired in the other domains. Regardless of what prekindergarten children are learning, they use their approaches to learning **skills** as strategies for directing their learning.

Some four-year-old children seem to be bursting with a desire to explore and accept new challenges. Others need some structure and encouragement when trying new things before they show their interest and eagerness. The role of teachers includes providing opportunities for success for all styles of learning. All children, regardless of learning style or special needs, are able to learn and be successful.

When teachers consider a child's approaches to learning, they observe the way the child explores new materials, shows excitement, sustains interest in an activity, and approaches new challenges. **Eagerness and curiosity** to engage with the environment is the first component of Approaches to Learning. Four-year-old children are naturally curious and use questions to learn. A second component is **persistence**. When interested in an activity, four-year-old children can attend for long periods of time and are able to seek help when needed. The third component, **creativity and inventiveness**, is demonstrated as four-year-old children try and enjoy different approaches and ideas. **Planning and reflection** is the fourth component. Increasingly four-year-old children set goals, try out different solutions, and, often through trial and error, find solutions to problems. These approaches to learning are critical **skills** that facilitate learning in all of the other domains of development.

The development of approaches to learning is highly dependent on the quality and quantity of interactions with supportive adults. Teachers that observe and assess learning styles, provide a well-designed learning environment, plan a variety of challenging activities, encourage children, and ask questions to **scaffold** group and individual learning opportunities will help children develop positive approaches to learning. Four-year-old children learn best when **eagerness** and curiosity, **persistence**, **creativity** and **inventiveness**, and **planning** and **reflection** are encouraged and supported in all domains of development.

II. Approaches to Learning (continued)

Strategies to Support Inclusive Learning Environments

- Use appropriate verbal, visual, and physical cues in interactions and activities to meet the special needs of individual children.
- Use **vocabulary** and phrases in the child's native language when introducing new ideas and concepts.
- Provide opportunities for interaction with typically developing peers.
- Observe the children, join in their play, and provide ideas or model to facilitate more complex play.
- Focus on children's strengths, preferences, interests, and emerging **skills** to encourage engagement.
- Use specialized equipment to increase access to activities and play areas.
- Modify instruction or activity when children lose interest.
- Assist children in selecting activities and materials and becoming actively engaged.

Approaches to Learning Glossary

creativity – individuality expressed by creating something new or original (e.g., new way to paint a flower).

curiosity – a strong interest in learning about something; children demonstrate curiosity when they ask questions about or show interest in activities within the classroom and the world around them (e.g., a child asks questions about new materials in the art center or a bug he/she discovers on the playground).

eagerness – energy and excitement about learning; wanting to learn (e.g., a child desires to participate in the small group activity the teacher has prepared).

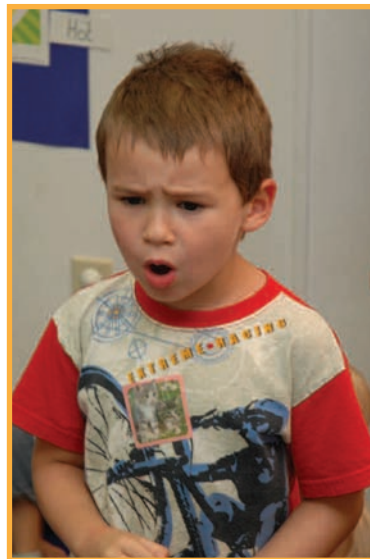
inventiveness – the ability to think of new or unique solutions when encountering problems (e.g., a child thinks of a new way to walk and carry a cup of milk without spilling it).

persistence – the patience and endurance to finish a task (e.g., a child works at completing a puzzle until all of the pieces are correctly placed).

planning – the process of preparation (e.g., a child tells the teacher what he/she will do during centers time).

reflection – the process of reviewing one's self or one's work.

scaffold – to model and provide appropriate support to help a child acquire a skill or knowledge (e.g., giving clues, asking questions, and providing verbal prompts).



III. Social and Emotional Development Standards

A. Self-Concept

1. Demonstrates ***self-concept***
2. Shows some ***self-direction***

B. Self-Control

1. Follows simple classroom rules and routines
2. Uses classroom materials carefully
3. Manages transitions

C. Relationships with Adults

1. Interacts easily with familiar adults
2. Seeks adult assistance appropriately

D. Relationships with Peers

1. Interacts easily with one or more children
2. Develops special friendships
3. Participates in the group life of the class
4. Shows ***empathy*** and caring for others

E. Social Problem-Solving

1. Seeks adult help when needed to resolve conflicts

III. Social and Emotional Development

Social and **emotional readiness** is critical to a child's successful kindergarten transition, early school success, and even later well-being. Studies indicate that young children who are able to understand and express their own feelings, understand the viewpoint and feelings of others, cooperate with peers and adults, and resolve conflicts are more likely to be successful in school. These **skills** appear to be rooted in relationships with adults. Children who have developed positive relationships with adults are secure and confident and can master new learning challenges. Positive relationships with adults set the stage for learning as children want to interact with, convey their thoughts and ideas to, understand the feelings of, cooperate with, and model the adults who care for them. Relationships guide how young children learn about themselves, others, and the world.

Positive relationships with adults lead to positive relationships with peers. Four-year-old children are developing important interpersonal **skills**. They are learning how to join groups, ask questions, and listen to their peers and adults. They construct knowledge by interacting with others and their environment, and they learn how to interact successfully with a variety of people and in different settings and circumstances.

There are five components of social and emotional development in four-year-old children. The first component, **self-concept**, is demonstrated as prekindergarten children participate in classroom activities, explore, and interact with others with growing confidence and self-direction. **Self-control** is the second component. Although four-year-old children may need reminders, they are increasingly able to follow classroom rules and routines, use classroom materials carefully, and manage transitions. **Relationships with adults** retain their importance, and interactions are increasingly initiated by prekindergarten children. Particularly with familiar adults, four-year-old children ask questions, keep conversations going, seek assistance appropriately, and recognize feelings. **Skills** associated with the fourth component, **relationships with peers**, increase during prekindergarten. Four-year-old children are able to engage peers in conversations and participate in group activities. They also develop special friendships and show that they care for others. The fifth component is **social problem-solving**, and it is evidenced as young children begin to use physical means of solving problems less often and develop more positive strategies, (e.g., asking questions, negotiating, and seeking adult help).

Social and emotional development is impacted by **temperament**. **Temperament** is a person's characteristic style of approaching and responding to people and situations and includes such factors as activity level, adaptability, regularity, approach-withdrawal, sensitivity, distractibility, intensity, quality of mood, and attention span. Through observations and interactions, teachers can come to understand and appreciate each child's unique characteristics. Positive teacher-child relationships are crucial to children's growing confidence and independence.

III. Social and Emotional Development (continued)

Strategies to Support Inclusive Learning Environments

- Separate **skills** and behaviors into smaller steps.
- Teach and model specific appropriate social skill behaviors.
- Carefully observe social interactions and provide opportunities that will promote positive interactions.
- Provide opportunities for social interactions with typically developing peers.
- Provide choices so children have more control over their environment.
- Provide environmental cues that make it easy for children to understand expectations and be successful in classroom routines.
- Use predictable and consistent schedules, routines, and activities and prepare children when changes are necessary.
- Limit the number of children in an area at any time to decrease overcrowding and conflict.
- Teach typically developing peers to initiate and persist in interacting with children with disabilities.
- Carefully select group members based on the goals of the group so that more competent peers are available to model **skills**.
- Comment on appropriate behavior, linking the behavior to classroom rules and expectations.

III. Social and Emotional Development

Related Skills within the Standards

- II. Approaches to Learning
A.1., B.1.
- III. Social and Emotional Development
D.2.
- V. Emergent Literacy
B.1., B.2., B.3.
- VII. Social Studies and The Arts
A(b).1., B(a).1., B(a).2., B(a).3.

Further Clarifications

It is okay for a child to have a shy **temperament**. Teachers should observe shy children to make certain there are no underlying causes for severe shyness.

A. SELF-CONCEPT

1. Demonstrates *self-concept*

Many preschool children come to school with a positive sense of self, aware of their personal characteristics and preferences and certain they will be liked. Others need time to observe and opportunities to learn how to play in a group setting. Confident four-year-old children will participate in most classroom activities, express emotions and preferences, eagerly explore toys and materials, and interact with others in the classroom.

Prekindergarten children demonstrate *self-concept* by:

- showing excitement when the teacher announces that they will be going on a field trip
- identifying personal characteristics and preferences, (e.g., the color of their hair or their favorite food)
- entering the dramatic play area and choosing a role that fits the play of others
- adapting to playground games and becoming part of the action
- teaching a word in sign language to a classmate.

Instructional Strategies

- Recognize and display children's art work.
- Support children when they make mistakes, acknowledging their efforts.
- Provide children with specific feedback that links effort to outcome, rather than general praise.

Environmental Considerations

Include a variety of interest areas and experiences that provide opportunities for children to make meaningful choices and express preferences.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

V. Emergent Literacy

B.1.

VI. Mathematical and Scientific Thinking

B(a).2.

VII. Social Studies and The Arts

A(c).1.

Further Clarifications

Phrase reminders in a positive way, stating what you want the child to do (e.g., "Please touch the guitar gently," instead of "Don't hit the guitar.").

B. SELF-CONTROL

2. Uses classroom materials carefully

In school, children are encouraged to take care of the materials they are using and keep the classroom in order.

Four-year-old children are just beginning to take on this responsibility independently, although they need frequent reminders.

Prekindergarten children demonstrate that they can use classroom materials carefully by:

- helping to clean up by sweeping around the sand table
- putting blocks away in designated places when the teacher announces it is clean-up time
- looking at books carefully and putting them back on the shelf when finished
- handling objects in the science area carefully
- exploring the teacher's guitar gently, thoughtfully, and with care.

Instructional Strategies

- Introduce new materials and show children how to use them and put them away.
- Provide frequent demonstrations and reminders of safe and respectful use of materials and equipment.
- Provide sufficient time in the daily schedule for clean-up activities.

Environmental Considerations

Provide a clean, safe, and well-organized environment with labeled containers for materials and supplies.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

III. Social and Emotional Development

B.1.

IV. Language and Communication

A.1.

Further Clarifications

When teachers manage transitions calmly, children are much more likely to do the same. Calm teachers are more likely to have calm children.

B. SELF-CONTROL

3. Manages transitions

Four-year-old children sometimes are upset when routines change or things are done differently. They manage transitions most successfully when they are told what to expect in advance.

Prekindergarten children show that they can manage transitions by:

- using a routine, (e.g., waving from the window or blowing a kiss good-bye), to manage the transition from home to school
- accepting transitions with little or no protest
- helping the teacher give transition signals
- cleaning up ahead of schedule because a visitor has come to lead a special group activity.

Instructional Strategies

- Use transition signals to help children manage changes.
- Develop routines and consistent schedules to support the development of **self-control** in children.
- Provide advance notice when changes to the schedule or routine are planned.

Environmental Considerations

Include transition props and materials such as music, carpet squares, and attention grabbing objects, as well as easy access to storage and consistent meeting spaces.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

III. Social and Emotional Development

D.4.

IV. Language and Communication

C.1., C.2., D.1., E.1., E.2., E.3.

Further Clarifications

A child's prior experiences with adults will shape how the child responds to new adults. Provide children with support and a safe environment where they can express concerns, if needed.

C. RELATIONSHIPS WITH ADULTS

1. Interacts easily with familiar adults

School success requires trusting relationships with familiar adults. When they feel safe and comfortable with adults, four-year-old children learn how to interact in new and different ways. They engage in conversations with and follow directions given by familiar adults much more readily than with unfamiliar adults. Some children need explicit instruction about positive ways to say "hello," respond to adults' comments and questions, or gain an adult's attention.

Prekindergarten children demonstrate that they can interact easily with familiar adults by:

- responding appropriately when an adult says, "Good morning"
- answering a teacher's question about who they played with on the playground
- asking for attention by raising a hand, touching a teacher's arm, making a verbal request, or using other reasonable actions without becoming impatient
- listening to and talking with familiar adults.

Instructional Strategies

- Introduce children to other adults in the facility (e.g., the cook, the principal or director, the nurse).
- Provide some individual attention for each child every day.
- Model respect for others and good conversational **skills**.

Environmental Considerations

Include spaces that encourage conversations and small group interactions (e.g., sitting areas for two or three people, community swings, and benches).

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

II. Approaches to Learning

B.1.

III. Social and Emotional Development

D.1., E.1.

IV. Language and Communication

E.1.

Further Clarifications

Young children require the assistance of adults in understanding and interpreting their feelings.

C. RELATIONSHIPS WITH ADULTS

2. Seeks adult assistance appropriately

Young children learn to regulate their behaviors and express their emotions with the guidance of adults.

Although four-year-old children will require reminders, they are able to try out simple suggestions made by familiar adults, wait for short amounts of time, and seek help in acceptable ways.

Prekindergarten children demonstrate that they can seek adult assistance appropriately by:

- after a reminder, waiting for the teacher to finish talking before telling him or her about the missing ball
- following the teacher's suggestion and asking a classmate for a turn on the swing
- yelling and running quickly for help when a friend falls and is hurt
- trying to talk with a friend about sharing the blocks before seeking help from the teacher.

Instructional Strategies

- Be attentive, patient, and responsive when children request help.
- Provide step-by-step suggestions and coaching for children needing problem-solving assistance.
- Develop a signal to remind children that they should not interrupt and need to wait a moment.

Environmental Considerations

Provide books and puppets to stimulate discussions and role play regarding behaviors and emotions.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

III. Social and Emotional Development

C.1., D.2., D.4.

IV. Language and Communication

E.1., E.2., E.3.

V. Emergent Literacy

A.4.(a).

Further Clarifications

Poor peer relationships and peer rejection are associated with aggression, loneliness, low self-worth, and later problems in school.

D. RELATIONSHIPS WITH PEERS

1. Interacts easily with one or more children

At age four, preschoolers are beginning to make the transition from parallel play to **cooperative** play. Taking turns, sharing, and conversing during play are new **skills** for many four-year-old children, and social exchanges are more positive with friends than with nonfriends.

Prekindergarten children demonstrate that they can interact easily with peers by:

- playing with whomever is in the dramatic play area rather than playing there only when alone or with a special friend
- making decisions with another child about who will put out the cups and napkins and how many they will need
- working cooperatively with another child as they paint on the same side of the easel
- using rhythm instruments with several other children.

Instructional Strategies

- Provide sufficient time, space, and materials for children to interact together.
- Create activities and situations that require children to work together in order to accomplish goals.
- Point out different perspectives (e.g., draw attention to how different children enjoy different activities).

Environmental Considerations

Include space for small groups to work together and materials that encourage cooperation.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

III. Social and Emotional Development
A.1., D.1., D.4.

Further Clarifications

The quality of children's friendships in prekindergarten is a significant determinant of their adjustment to kindergarten.

D. RELATIONSHIPS WITH PEERS

2. Develops special friendships

As communication increases and perspective-taking **skills** begin to develop, four-year-old children improve their social **skills** and develop special friendships. Children who become friends are better at initiating and sustaining interactions and resolving conflicts. Special friendships boost feelings of comfort and confidence and provide increased opportunities for developing **empathy** and caring for others.

Prekindergarten children demonstrate that they can develop special friendships by:

- talking with a friend to plan their play at the sand table
- going to the teacher for help when a friend is hurt
- regularly playing with one or two specific children
- noticing that a friend needs help putting away the blocks and going to help
- talking about their friendships with the teacher.

Instructional Strategies

- Encourage friendships by creating small group activities.
- Share information regarding special friendships with families.
- Use puppets, books, and other materials to highlight and model good friendship **skills**.

Environmental Considerations

Create bulletin boards and other spaces to display photographs of friends working and playing together.

Teacher Planning and Reflection

VII. Social Studies and The Arts

A(c).1.

Children this age typically do not follow games with rules, a developmental skill that usually appears around age seven.

D. RELATIONSHIPS WITH PEERS

3. Participates in the group life of the class

Children this age are beginning to show appreciation for group experiences and awareness of group expectations. However, they often need to be reminded of rules and routines. It is easier for young children if group rules, such as how many children can play at the water table, are discussed with them in advance and if they have a part in establishing expectations. Four-year-old children are just beginning to play simple board and card games.

Prekindergarten children show participation in the *group life of the class* by:

- readily joining circle time, participating in clean-up time, and going to snack when it is ready
- recognizing that a classmate is absent and asking the teacher about it
- suggesting silly and funny ideas for open-ended songs
- playing simple matching card or board games
- following the rules for leaving the classroom to go to the bathroom.

Instructional Strategies

- Give children meaningful classroom jobs (e.g., washing tables, feeding animals, sweeping the floor).
- Provide classroom activities that promote respect for diversity (e.g., culture, ethnicity, special needs, language).
- Conduct group meetings that involve children in making decisions about rules, fairness, and the group's welfare.

Environmental Considerations

Include posters, pictures, books, puzzles, foods, dolls, and household materials that reflect all manner of diversity.

Teacher Planning and Reflection

IV. Language and Communication

D.1., E.2.

Prekindergarten children are naturally egocentric; they think the world revolves around them. With strong adult models that encourage and praise their efforts to notice and understand peers, they begin to develop **empathy** and caring.

D. RELATIONSHIPS WITH PEERS

4. Shows *empathy* and caring for others

At four years of age, many children show that they are aware of the feelings of their classmates. Other four-year-old children need to be taught to notice their peers and to understand the emotions and experiences of others. Children this age are generally better able to show caring for real people or book characters than abstract ideas or situations.

Prekindergarten children show *empathy* and caring for others by:

- volunteering to sit next to a new child and helping the child prepare for snack
- expressing sadness to a friend whose pet has died
- going to a friend who has fallen and giving comfort
- expressing appropriate feelings (e.g., joy, sadness, fear) for characters in a story
- showing acceptance and support for a classmate with a physical disability.

Instructional Strategies

- Model concern for others (e.g., children, families, teachers, other staff, community members).
- Acknowledge when children help each other.
- Use books, puppets, and other activities to involve children in group discussions about the feelings of others.

Environmental Considerations

Include books, puppets, and materials that support understanding and expression of feelings.

Teacher Planning and Reflection

III. Social and Emotional Development

Related Skills within the Standards

II. Approaches to Learning

B.1.

III. Social and Emotional Development

C.2.

IV. Language and Communication

C.1., C.2., D.1., E.1., E.2., E.3.

Further Clarifications

Children are highly motivated to cooperate because of their relationships with adults.

E. SOCIAL PROBLEM-SOLVING

1. Seeks adult help when needed to resolve conflicts

Four-year-old children need a great deal of adult support and guidance in learning how to settle conflicts (e.g., how to share a limited amount of materials or deciding who will get to go outside first). Their natural responses are physical, (e.g., hitting, kicking, or throwing). They are beginning to learn alternatives from adults who suggest and model ways to use words and other simple formulas.

Prekindergarten children demonstrate social problem solving by:

- asking an adult to help when another child wants the same truck or when other children keep pushing in the line
- using words suggested by an adult to express anger, (e.g., “I don’t like it when you push me.”)
- asking a child to return a toy he or she has grabbed, and turning to an adult when the child refuses
- negotiating with other children to solve a problem.

Instructional Strategies

- Introduce, model, and designate a special space as the “negotiation place” to encourage joint resolution of conflicts.
- Use puppets, role plays, and books to model good problem-solving **skills**.
- Point out and describe others’ feelings to support the development of perspective-taking.

Environmental Considerations

Include sufficient space and materials to reduce conflicts and a teacher-to-child ratio that enables teachers to be available to assist with conflict resolution.

Teacher Planning and Reflection

Social and Emotional Development Glossary

emotional readiness – the ability to understand and express one’s own feelings, understand the feelings of others, cooperate with peers/adults, and resolve conflicts.

empathy – understanding another’s feelings.

group life of the class – group experiences and class expectations, rules, and routines (e.g., knowing that nap time is after lunch time).

interpersonal skills – the ability to get along with others.

self-concept – a positive sense of self and the confidence to participate in classroom activities, explore, and interact with others.

self-control – a child’s ability to control his/her own behavior, especially in terms of reactions and impulses (e.g., following classroom rules and routines, using materials and managing transitions appropriately).

self-direction – acting independently when engaging in new tasks (e.g., a child attempts to independently tie his shoe because it is untied).

social problem-solving – developing positive strategies to settle conflicts with others in social situations (e.g., asking questions, negotiating, and seeking adult help).

social readiness – the ability to cooperate with peers and adults to resolve conflicts.

temperament – a person’s characteristic style of approaching and responding to people and situations includes activity level, adaptability, regularity, approach-withdrawal, sensitivity, distractibility, intensity, quality of mood, and attention span.



IV. Language and Communication Standards

A. Listening

1. Gains meaning by listening
Benchmark: Child shows understanding by asking and answering relevant questions, adding comments relevant to the topic, and reacting appropriately to what is said.
2. Follows two- and three-step directions
Benchmark: Child has mastery of two-step directions and usually follows three-step directions.

B. Speaking

1. Speaks clearly enough to be understood without contextual clues
Benchmark: Child's speech is understood by both a familiar and an unfamiliar adult.

C. Vocabulary

1. Shows an understanding of words and their meanings
Benchmark a: Child has age appropriate **vocabulary** in several categories and demonstrates a wide variety of words within each category (e.g., world knowledge, names of body parts, feelings, colors, shapes, jobs, tools, plants, animals and their habitats, and foods; words that describe, adjectives and adverbs; and action words, verbs).
Benchmark b: Child has mastery of instructional language of the classroom and objects in the classroom (e.g., same and different, in front of and behind, next to, opposite, below).
Benchmark c: Child understands or knows the meaning of many thousands of words, many more than he or she uses.
2. Uses an expanded **vocabulary** to describe many objects, actions, and events
Benchmark a: Child uses a large speaking vocabulary, adding new words weekly.
Benchmark b: Child uses category labels (e.g., fruit, vegetable, animal, transportation, tools).

IV. Language and Communication Standards (continued)

D. Sentences and Structure

1. Uses **age-appropriate grammar** in conversations and increasingly complex phrases and sentences
Benchmark a: Child typically uses complete sentences of four or more words, usually with subject, verb, and object order.
Benchmark b: Child uses regular and irregular plurals, regular past tense, personal and possessive pronouns, and subject-verb agreement.
2. Connects phrases and sentences to build ideas
Benchmark a: Child uses sentences with more than one phrase.
Benchmark b: Child combines more than one idea using complex sentences.
Benchmark c: Child combines sentences that give lots of detail, stick to the topic, and clearly communicate intended meaning.

E. Conversation

1. Uses language to express needs and feelings, share experiences, predict outcomes, and resolve problems
Benchmark: Child demonstrates varied uses of language (e.g., requesting, commenting, using manner words, problem-solving).

2. Initiates, asks questions, and responds to adults and peers in a variety of settings
Benchmark a: Child follows another's conversational lead, appropriately initiates or terminates conversations, or appropriately introduces new content.
Benchmark b: Child provides appropriate information for the setting (e.g., introduces himself or herself; requests assistance such as asking for help; answers questions such as providing name and address to a police officer or other appropriate adult).
3. Uses appropriate language and style for context
Benchmark a: Child demonstrates knowledge of verbal conversational rules (e.g., appropriately takes turns, does not interrupt, uses appropriate verbal expressions, and uses appropriate **intonation**).
Benchmark b: Child demonstrates knowledge of nonverbal conversational rules (e.g., appropriate eye contact, appropriate facial expressions, appropriate distance in conversation).
Benchmark c: Child matches language to social contexts (e.g., uses volume appropriate to context, addresses adults more formally than he or she addresses other children).

IV. Language and Communication

All children's **oral language** development, including listening and speaking **skills**, proceeds at an individual pace. However, for most children, the prekindergarten period is one of rapid growth and expansion of understanding, interest, and **expressive language skills**. When immersed in environments rich in language, novel experiences, and conversation, children make dramatic gains in their **comprehension** of spoken language and in their ability to effectively use **oral language** to communicate their own ideas and experiences.

Social and emotional **skills**, including developing friendships, interacting appropriately with peers and adults in the classroom setting, and expressing needs and feelings, are enhanced in children who have larger vocabularies and greater **oral language** skills. A child who can readily describe an experience, ask for help, and express excitement and **curiosity** adapts more easily to the challenges, expectations, and new situations in the classroom setting in prekindergarten and beyond.

Prekindergarten children advance their language and communication development through learning opportunities in five primary component areas. **Listening**, or receptive language, the first component, is demonstrated by the way a child verbally and behaviorally responds to oral communication. The second component, **speaking**, or expressive language, refers to the child's own skill at clearly expressing himself or herself in words. The third component, **vocabulary**, includes a huge expansion in the words that a child understands, especially words related to a growing knowledge of the world and the ways that people describe objects and actions, as well as substantial growth in the words children use in their own verbal expression. The fourth component is **sentences and structure**. During the prekindergarten period, children expand their use of complete sentences and demonstrate growing mastery of correct structure in the way they arrange the words they use to communicate. Children gain a more sophisticated understanding of **conversation**, the fifth component, including how to initiate, participate appropriately, and modify their speaking patterns for different contexts and settings.

For many children, the VPK program may be the first time that they have been regularly exposed to children and adults different from their relatives and community members. These new experiences also bring exposure to a broader and more varied language environment. Children bring with them, and share with one another, the language knowledge and **skills** acquired from their unique home experiences.

The VPK experience also allows children from diverse cultural and language backgrounds to learn the **language of school**, including vocabulary, sentence structure, and content that are key parts of the educational experience in the United States. Understanding these concepts is a first step toward success in the school environment. In addition, children learn words and concepts related to the wide variety of activities, books, and materials in prekindergarten classrooms. This expanded **vocabulary** allows children to gain a deeper and broader understanding of the world in which they live. Every additional word in their **oral language** vocabulary will also later help children comprehend and create written text.

IV. Language and Communicaton (continued)

Note: Benchmarks for development are included in this domain. Benchmarks are more precise than the standards and are set to reflect the level of skill and knowledge that should be demonstrated by a child **at the end of their VPK experience** (when most, if not all, of the children would be five years of age).

Strategies to Support Inclusive Learning Environments

- Provide good models of communication, including sign language and other alternative methods.
- Use special or adaptive devices and/or processes to increase the level of communication and/or participation.
- Use a favorite toy, activity, or person to encourage communication and/or participation.
- Use peers to provide specific language models.
- Use alternative strategies when communicating with children who are nonverbal, have language delays, or are English language learners.
- Encourage and welcome support personnel (e.g., speech therapist) to work in the classroom modeling instructional strategies and problem-solving with the child's teachers.

IV. Language and Communication

Related Skills within the Standards

I. Physical Health
A.3., A.5.

III. Social and Emotional Development

B.1., B.3.

IV. Language and Communication

E.3.

V. Emergent Literacy

A.1., A.2., A.4.

VII. Social Studies and The Arts

B(b).1.

Further Clarifications

Children this age may need help with generating responses to “why” questions.

A. LISTENING

1. Gains meaning by listening

Four-year-old children gain knowledge about their world by watching and listening. They acquire the skill to listen not only when they are spoken to one-on-one by adults and peers, but also when they are spoken to as part of a group. This “group listening skill” is important for learning and acquiring information in school settings.

Benchmark: Child shows understanding by asking and answering relevant questions, adding comments relevant to the topic, and reacting appropriately to what is said.

Prekindergarten children demonstrate gains in meaning through listening by:

- carrying on a conversation with another person that extends a thought or idea expressed to the group earlier
- responding to stories read to the whole class, rather than responding only when read to as part of a small group
- understanding a change in the morning activity schedule described by the teacher
- listening to audio-taped stories and showing understanding through body language, pointing to appropriate pictures, or retelling what they heard.

Instructional Strategies

- Ask children recall and expansion questions during show and tell and similar large group discussions.

- Ask children who, what, where, and why questions during shared reading.
- Engage in daily conversations with children on theme- or content-related topics, where children take multiple turns listening and responding.

Environmental Considerations

Provide a variety of books, tapes, and CDs for individual and group listening.

Teacher Planning and Reflection

[illegible]

IV. Language and Communication

Related Skills within the Standards

I. Physical Health

A.3., B.5.

III. Social and Emotional Development

B.1.

Further Clarifications

When giving multi-step directions, teachers should monitor follow-through and provide support if needed.

A. LISTENING

2. Follows two- and three-step directions

Remembering and following directions is critical for preschool children's independent functioning in educational settings.

Four-year-old children are beginning to follow simple two- and three-step directions with relative ease. They also respond to group directions, rather than always needing individual instruction.

Benchmark: Child has mastery of two-step directions and usually follows three-step directions.

Prekindergarten children show that they can follow two- and three-step directions by:

- following directions given by the teacher (e.g., "Please wash your hands and then sit down at the table.")
- responding to instructions given to the class (e.g., "Please get your jackets, put them on, and sit down on the rug.")
- repeating an instruction to a friend
- following directions on a tape or CD to perform various movements.

Instructional Strategies

- Instruct children in setting tables for meals and snacks by giving two- and three-step directions.
- Provide two- and three-step directions for children to complete tasks during clean up and other transitions.
- Play or sing songs requiring children to act out multiple behaviors and multi-step directions (e.g., *Going on a Bear Hunt*, or *Head, Shoulders, Knees, and Toes*).

Environmental Considerations

Provide child-sized materials and equipment to facilitate autonomy and mastery of self-help *skills*.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

I. Physical Health

A.1.

V. Emergent Literacy

A.2., A.4.

Further Clarifications

Many children this age have articulation difficulties and may mispronounce certain sounds.

B. SPEAKING

1. Speaks clearly enough to be understood without contextual clues

By four years of age, children usually speak with sufficient clarity so that it is easy to understand what they are saying without the help of additional information or gestures. Four-year-old children generally use correct **syntax**, but sometimes overgeneralize rules (e.g., “We goed to the store.”). Although they may still make some articulation errors, the length of their **utterances** and the grammatical complexity of their language are increasing.

Benchmark: Child's speech is understood by both a familiar and an unfamiliar adult.

Prekindergarten children show that they can speak clearly enough by:

- speaking clearly enough so that a classroom visitor knows what they are saying
- accurately delivering a message from home to teacher
- communicating in a way that others understand what is being said without constantly having to ask, "What did you say?"

Instructional Strategies

- Model clear speech at a comfortable pace (not too fast or too slow) and an easily heard volume inside and outdoors.
- Expect children to use language when making requests, rather than only pointing or gesturing.

- Correct over-generalization of rules by simply correctly restating what the child said.

Environmental Considerations

Include spaces that invite conversations, small groups of children to work together, and large group interactions.

Teacher Planning and Reflection

[illegible]

IV. Language and Communication

Related Skills within the Standards

- I. Physical Health
A.5.
- II. Approaches to Learning
C.1.
- III. Social and Emotional Development
C.1., E.1.
- V. Emergent Literacy
A.2., A.3., A.4., B.3., B.4.
- VI. Mathematical and Scientific Thinking
A(a).4., A(d).1.(d),
A(e).1.(a), A(e).1.(b),
A(e).3., A(f).2.(a),
A(f).2.(b), A(f).2.(c),
B(a).1., B(a).3.
- VII. Social Studies and The Arts
A(a).1., A(b).2.

Further Clarifications

Parts of speech include nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions, and articles.

C. VOCABULARY

1. Shows an understanding of words and their meanings

Four-year-old children are expanding their **vocabulary** daily through exposure to books, trips, and other early learning activities. At the same time, they are beginning to converse about objects and events that are not physically present, or are somewhat abstract, or that they remember from the past.

Benchmark a: Child has **age-appropriate vocabulary** in several categories and demonstrates a wide variety of words within each category (e.g., world knowledge; names of body parts, feelings, colors, shapes, jobs, tools, plants, animals and their habitats, and foods; words that describe, adjectives and adverbs; and action words, verbs).

Prekindergarten children show that they understand words and their meanings by:

- telling a visitor about the different tools used in the garage they visited on a field trip
- using words to communicate their feelings
- telling a classroom visitor about the different trucks in the truck area, using appropriate terminology
- following directions that use descriptive words (e.g., run fast, draw a big circle, eat slowly).

Instructional Strategies

- Provide and read to children a variety of concept-related books (e.g., farm animals, vegetables, the body, transportation).

- Model a wide variety of rich **vocabulary** words, including varied nouns, adjectives, and verbs.
- Define new words for children when reading aloud and encourage discussion of word meanings.
- Create category lists of words (e.g., zoo animals we saw on the field trip, tools we use in the classroom).

Environmental Considerations

Include evidence of the value of children's language (e.g., bulletin boards, charts, and home-made books) based on children's conversations and comments regarding their drawings.

Teacher Planning and Reflection

Four-year-old children do not typically have an understanding of left and right.

Benchmark b: Child has mastery of *instructional language* of the classroom and objects in the classroom (e.g., same and different, in front of and behind, next to, opposite, below).

Teacher Planning and Reflection

Children will learn and use new words easily when their teacher uses new and interesting words in conversation.

- Provide numerous daily opportunities for children to talk with peers and adults in the classroom.
- Encourage children's verbal input during shared book reading (e.g., in response to questions or to relate the book to their own experiences).
- Teach children to play *Go Fish* and other card games that require verbal labeling of and request of picture card.

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I. Physical Health
A.5.
Approaches to Learning
C.1.
Social and Emotional Development
C.1., E.1.
V. Emergent Literacy
A.4., B.4.
VI. Mathematical and Scientific Thinking
A(e).3., A(f).2.(a),
A(f).2.(b), A(f).2.(c),
B(a).1., B(a).3.
VII. Social Studies and The Arts
A(a).1., A(b).2.

Provide frequent opportunities for families to share special interests and include category words associated with their interests in the classroom.

2. Uses an expanded *vocabulary* to describe many objects, actions, and events (continued)

Benchmark b: Child uses category labels (e.g., fruit, vegetable, animal, transportation, tools).

Prekindergarten children show their expanded vocabulary by:

- answering questions at circle time about transportation
- using a new word learned on a field trip to the train station
- labeling and describing fruits and vegetables
- identifying which objects are kitchen items and which are not.

Instructional Strategies

- Call attention to category labels that appear in story books and other written text.
- Model use of and teach children category group labels (e.g., vehicles, clothing, and furniture).
- Provide opportunities for children to make category collages of items, and have children share their collages by orally labeling each item and naming the category.

Environmental Considerations

Introduce new category labels to children through changes to the dramatic play center (e.g., adding words associated with stores, travel, pets, and kitchen tools).

Teacher Planning and Reflection

[illegible]

IV. Language and Communication

Related Skills within the Standards

III. Social and Emotional Development

C.1., E.1.

V. Emergent Literacy

A.2.

Further Clarifications

Be attentive to quiet or shy children. Talk with their parents frequently about special interests and look for opportunities to engage these children in conversations.

D. SENTENCES AND STRUCTURE

1. Uses *age-appropriate grammar* in conversations and increasingly complex phrases and sentences

Four-year-old children increase their use of sentences with greater length and complexity. Although errors continue to occur, they demonstrate understanding of many structure and grammar rules.

Benchmark a: Child typically uses complete sentences of four or more words, usually with subject, verb, and object order.

Prekindergarten children demonstrate use of *age-appropriate grammar* by:

- telling a story about a family trip using long and complex sentences
- participating in a long conversation about pets with a friend
- asking questions and adding ideas using complete sentences during a presentation by a special visitor.

Instructional Strategies

- Play a word substitution game that expects each child to repeat the sentence with a different ending (e.g., "I went to the store to buy a _____.").
- Help children tell one sentence about their drawings or favorite objects (e.g., "My dinosaur sleeps with me." "Here's a picture of my family.").

- Model how and encourage children to describe a familiar object that is hidden in a cloth bag in order to guess its identity (e.g., "I feel something soft. It has four legs. It has two ears.").

Environmental Considerations

Provide books of increasing complexity.

Teacher Planning and Reflection

[illegible]

IV. Language and Communication

Related Skills within the Standards

III. Social and Emotional Development

C.1., D.4., E.1.

V. Emergent Literacy

A.2.

Further Clarifications

Teachers should model correct grammar when talking with children and parents. When a child uses incorrect grammar, the teacher should rephrase what the child said as clarification (e.g., the child says, "I go to the store!" The teacher says, "Oh! You went to the store? What did you buy there?").

D. SENTENCES AND STRUCTURE

1. Uses *age-appropriate grammar* in conversations and increasingly complex phrases and sentences (continued)

Benchmark b: Child uses regular and irregular plurals, regular past tense, personal and possessive pronouns, and subject-verb agreement.

Prekindergarten children demonstrate use of *age-appropriate grammar* by:

- using the correct tense when describing something they did the night before
- saying "feet" although a younger classmate says "foots"
- identifying all the art objects that are theirs, using "my" and "mine," and those that belong to their friends, using "his" or "her."

Instructional Strategies

- Model and help children describe pictures of multiple and single objects to practice the use of correct subject-verb agreement.
- Use picture prompts to encourage children to say phrases and sentences with irregular plurals (e.g., foot/feet, mouse/mice, ox/oxen, child/children).
- Demonstrate how to tell about one's own picture and about the next child's picture, beginning with the words "my picture," "his picture," or "her picture."

Environmental Considerations

Include a children's dictionary in the classroom to model looking up correct spellings and definitions of new words.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

II. Approaches to Learning

C.1.

V. Emergent Literacy

A.4., B.4.

VI. Mathematical and Scientific Thinking

B(a).1.

VII. Social Studies and The Arts

A(b).2.

Further Clarifications

Show and Tell is best played in small groups to retain child attention and interest.

D. SENTENCES AND STRUCTURE

2. Connects phrases and sentences to build ideas

As prekindergarten children explore their environments, they demonstrate their growing knowledge by sharing information in longer and more **complex sentences** that provide many details. Four-year-old children are generally understood by listeners and able to stay on topic.

Benchmark a: Child uses sentences with more than one phrase.

Prekindergarten children demonstrate that they can connect phrases and sentences by:

- talking with a friend as they play, using sentences with more than one phrase (e.g., "Let's build a road next to this building and put a bridge in it.")
- participating in a circle time discussion, adding information in multiple phrases (e.g., "Lizards like to crawl under things and change colors.")
- describing a family trip, combining phrases (e.g., "We went on a hike and saw a waterfall.").

Instructional Strategies

- Have children work in pairs, with one child telling the first part of a sentence and the other child adding a real or silly phrase to it (e.g., "The dog jumped over the fence... to get the big bone.").

- Provide opportunities for children to tell the group a simple story about a favorite personal experience (e.g., telling the class about a visit to a friend's house during *Show and Tell*).
- Model and give children opportunities to ask and respond to questions in more than one phrase (e.g., "Where would you find a frying pan in a house? A frying pan is found in the kitchen.").

Environmental Considerations

Include ample spaces to post photographs, project work, and materials that highlight children's ideas.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

II. Approaches to Learning

C.1.

V. Emergent Literacy

A.4., B.4.

VI. Mathematical and Scientific Thinking

B(a).1.

VII. Social Studies and The Arts

A(b).2.

Further Clarifications

To help encourage more complex speech, closely attend to and appropriately respond to what children say.

D. SENTENCES AND STRUCTURE

2. Connects phrases and sentences to build ideas (continued)

Benchmark b: Child combines more than one idea using complex sentences.

Prekindergarten children demonstrate that they can connect phrases and sentences by:

- describing what the monkeys did at the zoo
- telling a friend how the cash register works in the dramatic play area
- reminding the teacher that they are leaving early because their grandfather is taking them to a movie.

Instructional Strategies

- Provide simple science experiments (e.g., objects that sink and float) and encourage children to tell what happened (e.g., "The flower floated when it fell in the water." "I think the block will sink because it is heavy like a stone.").
- Help children use complex phrases when retelling familiar stories (e.g., "When the clock struck midnight, Cinderella ran away.").
- Encourage children to describe their art using complex sentences (e.g., "After I mixed blue and red paint, it turned purple.").

Environmental Considerations

Provide spaces for parents to post photographs and information about family events and ask children follow-up questions.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

- I. Physical Health
A.1.
- II. Approaches to Learning
A.1., C.1.
- III. Social and Emotional Development
C.1., C.2., D.1., E.1., D.4.
- V. Emergent Literacy
A.4.
- VI. Mathematical and Scientific Thinking
A(b).1.(a), A(b).1.(b),
A(b).2.(b), A(f).2.(a),
A(f).2.(b), A(f).2.(c),
A(f).2.(d), B(a).1.
- VII. Social Studies and The Arts
A(b).2.

Further Clarifications

It is alright for children to make predictions that may be wrong. Follow-up and discussion are essential for children's understanding.

E. CONVERSATION

1. Uses language to express needs and feelings, share experiences, predict outcomes, and resolve problems

Four-year-old children become increasingly able to use language appropriately and effectively in different social contexts. They share information, feelings, desires, and experiences in ways that help them get their needs met, solve problems, and/or engage other people.

Benchmark: Child demonstrates varied uses of language (e.g., requesting, commenting, using manner words, problem-solving).

Prekindergarten children demonstrate that they can use language for a variety of purposes by:

- requesting help from a teacher to get a ball that went over the playground fence
- telling a friend that they are angry about being pushed
- using “please” and “thank you” appropriately
- participating in a discussion about magnets, making predictions about what things the magnet will attract.

Instructional Strategies

- Model appropriate language usage.
- Engage children verbally in center activities by role playing and modeling desired language **skills**.
- Provide experiences that require children to talk and work cooperatively.

Environmental Considerations

Include a variety of books, puppets, felt boards, and other language materials to spark discussions of feelings and experiences.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

II. Approaches to Learning

A.1., C.1.

III. Social and Emotional Development

C.1., D.1., E.1.

VI. Mathematical and Scientific Thinking

A(f).2.(a), A(f).2.(b),
A(f).2.(c), A(f).2.(d),
B(a).1.

VII. Social Studies and The Arts

A.(b).2.

Further Clarifications

If a child is embarrassed and disturbed by his or her speech or if language **skills** seem well behind peers', discuss your concerns with supervisor or appropriate person.

E. CONVERSATION

2. Initiates, asks questions, and responds to adults and peers in a variety of settings

Four-year-old children appropriately use conversations to engage adults and peers, and understand that asking questions is one way to keep a conversation going. They also understand what types of topics to talk about with different people in different settings.

Benchmark a: Child follows another's conversational lead, appropriately initiates or terminates conversations, appropriately introduces new content.

Prekindergarten children demonstrate that they can initiate and maintain conversations by:

- appropriately joining in a conversation in progress in the dramatic play area
- telling about their pet bird after the teacher asks, "Who has a pet?"
- ending a telephone conversation by saying "Goodbye."

Instructional Strategies

- Greet each child daily and reply to each child's response.
- Engage children in conversation and provide opportunities for children to lead the conversation.
- Encourage an unengaged child to initiate a conversation with another child.

Environmental Considerations

Encourage conversations among peers by providing small group activities and side-by-side center activities.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

III. Social and Emotional Development

C.1., D.1., E.1.

IV. Language and Communication

A.1.

Further Clarifications

Worried about your classroom being too noisy? Remember the phrase, "Noise with a purpose!" Children must be actively engaged in their learning for it to be meaningful.

E. CONVERSATION

3. Uses appropriate language and style for context

Four-year-old children are becoming quite good at following conversational rules, using appropriate verbal and nonverbal expressions. They are also learning to change their language to match different contexts.

Benchmark a: Child demonstrates knowledge of verbal conversational rules (e.g., appropriately takes turns, does not interrupt, uses appropriate verbal expressions, and uses appropriate *intonation*).

Prekindergarten children show appropriate language and style by:

- participating in a conversation with a special visitor, taking turns talking and not interrupting
- waiting until a teacher finishes a conversation with a parent before requesting help with the art supplies
- showing excitement by using a raised voice when talking about a family trip.

Instructional Strategies

- Model conversational etiquette during *Show and Tell* (e.g., "Susie is sharing now. Your turn is next.").
- Model and explain when and how to use the phrase, "Excuse me," when a child needs to interrupt an ongoing conversation.
- Provide a talking stick for children to learn to take turns speaking (e.g., whoever has the talking stick is permitted to speak).

Environmental Considerations

Include easy-to-access writing materials in many areas of the classroom to encourage documentation, charts, and notations regarding classroom conversations.

Teacher Planning and Reflection

IV. Language and Communication

Related Skills within the Standards

III. Social and Emotional Development

C.1., D.1., E.1.

Further Clarifications

There are often differences in family preferences regarding how formally children should address adults. Talk with parents regarding their preferences.

E. CONVERSATION

3. Uses appropriate language and style for context (continued)

Benchmark c: Child matches language to social contexts (e.g., uses volume appropriate to context, addresses adults more formally than he or she addresses other children).

Prekindergarten children show appropriate language and style by:

- speaking quietly to a teacher as classmates settle down for a nap
- using the title “Mr.” or “Ms.” before a teacher’s name and referring to classmates by first names
- adhering to the classroom rule regarding “inside voices.”

Instructional Strategies

- Model communication in different social situations (e.g., using different indoor and outdoor voices).
- Provide varying social situations (e.g., tea parties, assemblies, field trips).
- Remind children in the dramatic play area to use a quiet voice when the dolls are napping.

Environmental Considerations

Provide written words and pictures to remind children of social context rules.

Teacher Planning and Reflection

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Language and Communication Glossary

age-appropriate grammar – oral formation of sentences with some errors, but an understanding of some grammatical rules (e.g., “She runned across the playground.”).

age-appropriate vocabulary – age-appropriate knowledge of word meanings and continual learning of more words.

articulation errors – a mispronunciation of one or more sounds within a word (e.g., a child says “ellow” for the word yellow or “ish” for the word fish).

complex sentence – a sentence that includes at least one *independent clause*, and at least one *dependent clause* (part of a sentence has a subject and predicate but cannot stand on its own as a separate sentence). In the sentence, “After the children went out to the playground, the teacher put the snacks on the tables,” the first phrase is a dependent clause.).

context clues – information around an unfamiliar word or picture that helps the reader understand its meaning (e.g., a child determines the word thrilled means happy after hearing the sentence, “The girl is thrilled it is her birthday.”).

expressive language – the ability to communicate with words; refers to what a child says, not how it is said.

instructional language – words, phrases, or ways of saying things that are common in many instructional contexts, including the use of spatial or relational words to identify the location of an object (e.g., “The book is under the big table.”), the use of terms to define special locations (e.g., “Put that in the block area.”), categorical words such as opposites, and similar terms that may be unique to the instructional setting.

intonation – the normal rise and fall in pitch that occurs as people speak. Changes in intonation typically occur when certain words are stressed, or at the end of sentences, (e.g., the upswing when a question is being asked, or the drop that marks the end of a complete sentence or thought).

language of school – the vocabulary, sentence structure, and content of language that is a key part of the educational experience.

literacy – being literate; possessing language, reading, and writing skills.

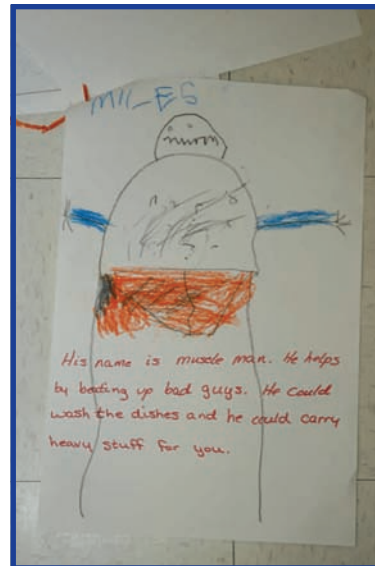
Language and Communication Glossary (continued)

oral language – spoken language.

receptive language – the understanding of language that is heard (e.g., a child gets in line after the teacher says, “It’s time to line up.”).

syntax – patterns of grammar and the arrangement of words to form sentences. “The dog ate my shoe,” is an example of correct syntax. “The shoe ate my dog,” is an example of incorrect syntax.

utterances – real or nonsense words or sounds that a child says.



V. Emergent Literacy Standards

A. Emergent Reading

- Shows motivation for reading
Benchmark a: Child enjoys reading and reading-related activities (e.g., selects reading and reading-related activities when given a choice, pretends to read to others).
Benchmark b: Child uses books and other written materials appropriately (e.g., pretends to read, looks at books in an orderly fashion, turns one page at a time, goes from front to back).
Benchmark c: Child asks to be read to or asks the meaning of written text.
- Shows age-appropriate phonological awareness
Benchmark a: Child combines words to make a compound word (e.g., "foot" + "ball" = "football") and deletes a word from a compound word (e.g., "starfish" – "star" = "fish").
Benchmark b: Child combines syllables into words (e.g., "sis" + "ter" = "sister").
Benchmark c: Child can delete a **syllable** from a word (e.g., "trumpet" – "trum" = "pet" or "candy" – "dy" = "can").
Benchmark d: Child combines **onset** and **rime** to form a familiar one-**syllable** word with pictorial support (e.g., when shown several pictures, and adult says /c/ + "at," child can select the picture of the cat).

- Shows **alphabetic knowledge**
Benchmark a: Child recognizes almost all letters by name (e.g., when shown a group of letters, can accurately identify the letter that is named).
Benchmark b: Child names most letters (e.g., when shown a letter, can accurately say its name).
Benchmark c: Child names some letter sounds (e.g., when shown a letter, can accurately say the sound the letter makes).
Benchmark d: Child recognizes some letter sounds (e.g., when shown a group of letters, can accurately identify the letter of the sound given).
- Shows understanding of text read aloud
Benchmark a: Child retells or reenacts story after it is read aloud.
Benchmark b: Child asks and answers appropriate questions about the story (e.g., "What just happened?" "What might happen next?" "What would happen if...?" "What was so silly about...?").

V. Emergent Literacy Standards (continued)

B. Emergent Writing

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Shows motivation to engage in written expression
 Benchmark: Child intentionally uses scribbles/writing to convey meaning (e.g., signing artwork, captioning, labeling, creating lists, making notes). 2. Uses letter-like shapes, symbols, and letters to convey meaning
 Benchmark a: Child independently uses letters or symbols to make words or parts of words.
 Benchmark b: Child writes own name (e.g., first name, last name, or frequent nickname), not necessarily with full correct spelling or well-formed letters. | <ol style="list-style-type: none"> 3. Demonstrates age-appropriate ability to write letters
 Benchmark: Child independently writes some letters on request. 4. Shows knowledge of structure of written composition
 Benchmark: When writing or dictating, child uses appropriate writing conventions (e.g., a letter starts with “Dear” or the idea that a story has a beginning, middle, and end). |
|---|--|

V. Emergent Literacy

Learning to read and learning to write are among the most important tasks, and achievements, of young children today. These **skills** open the door to a world of learning, discovery, and **creativity** found in written texts and in the writings of the children themselves. Research shows that children who learn to read early and well in their elementary school education read more independently; achieve more in content area classes, (e.g., math, social studies, and science); and are more likely to graduate from high school and pursue higher education. Children who learn to read early in their education benefit from the huge increase in the number of new words they come across each year. These experiences enrich their own oral vocabulary, their reading **comprehension**, and their writing. Prekindergarten provides children with experiences that help them get ready to read once they reach elementary school.

The prekindergarten period is one of increased motivation for reading among most children, especially those who have been exposed to reading, writing, and various forms of print in their home environments. Children who come to prekindergarten with fewer of these experiences can benefit immensely from the chance to develop an understanding of and appreciation for written language. When given ample opportunities to interact with books and other forms of print, as well as some instruction in **emergent literacy** areas, children can learn much more about the purposes and concepts of written language, and about the sounds and letters that combine to form print. Children learn best through experiences that are meaningful and interesting to them and through repetition over time, rather than through drill.

Emergent literacy includes two components, both reflecting the development of the knowledge, conceptual understanding, and **skills** that form the basis for later reading and writing and both including four standards. In the first component, **emergent reading**, children show increasing motivation for reading, demonstrated by interest in being read to and told what written words mean, and development in the appropriate use of books and other printed materials. Children also develop age-appropriate phonological awareness, demonstrated by their growing capacity to recognize that words are made up of smaller units of sound, and that they can **blend** sounds together to form words, or break words apart into smaller pieces. **Alphabetic knowledge** refers to children's growing recognition of and ability to name the letters and the sounds they make. As children are growing in their ability to comprehend spoken language, they also are developing their understanding of text read aloud, as demonstrated by their correct reenactment or retelling of stories read to them, and by their ability to ask and answer factual and abstract questions about the texts. These are **oral language** skills that emerge with adult support; children who are four-years-old typically are not reading text.

In **emergent writing**, the second component, children develop motivation for written expression and learn the concept that print conveys meaning. Just as children grow in their ability to name and recognize alphabet letters, they also gain skills in using letter-like shapes, symbols, and letters to convey meaning, and age-appropriate skill at writing letters. Children's knowledge of the structure of written composition is demonstrated in their dictated stories and their own beginning forms of written expression.

V. Emergent Literacy (continued)

A vast amount of research accumulated across the last several decades tells us that the **emergent literacy** knowledge and **skills** that children can develop during prekindergarten are the key foundations upon which much of their later reading, writing, and content learning capabilities are built. These **skills** allow children to easily break the code of reading, especially once their formal reading instruction begins in kindergarten. Together with a growing mastery of **oral language** and an expanding vocabulary, the print-related **skills** learned early on pave the way toward success at creative and clear writing **skills** and reading **comprehension**.

Note: Benchmarks for development are included in this domain. Benchmarks are more precise than the standards and are set to reflect the level of skill and knowledge that should be demonstrated by a child **at the end of their VPK experience** (when most, if not all, of the children would be five years of age).

Strategies to Support Inclusive Learning Environments

- Provide alternate versions of texts (e.g., books on tape, books in Braille).
- Use assistive technology so that children can interact with literacy materials.
- Separate **skills** and behaviors into smaller steps.
- Use alternate methods of communication for response.

A.1.

Further Clarifications

A. EMERGENT READING

1. Shows motivation for reading

Families and teachers are powerful influences on children's developing motivation to read. Attitudes, beliefs, and levels of literacy in the home, as well as opportunities in prekindergarten, determine children's exposure to and interest in reading. Four-year-old children continue to enjoy interactive language activities and are developing an increasing interest in "reading" on their own. A love of books and the enjoyment of reading move them toward reading on their own.

Benchmark a: Child enjoys reading and reading-related activities (e.g., selects reading and reading-related activities when given a choice, pretends to read to others).

Prekindergarten children demonstrate motivation for reading by:

- selecting the reading center during free play
- reenacting a favorite story with felt board characters
- “reading” a book to a doll during dramatic play
- asking a teacher to read a favorite book.

Instructional Strategies

- Use topical books to supplement center and project activities (e.g., books on building and architecture in the block area, books on the class theme, menus in dramatic play, and books on plants in the science center).

- Provide books on audio tape that children can listen to while following along in printed text.
- Create comfortable, inviting spaces to read.

Environmental Considerations

Provide a library with a variety of books (e.g., types, difficulty, topic, and genre) in an inviting, comfortable setting.

Teacher Planning and Reflection

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V. Emergent Literacy

Related Skills within the Standards

II. Approaches to Learning

A.1.

III. Social and Emotional Development

A.2.

IV. Language and Communication

A.1.

Further Clarifications

Although four-year-old children are often interested in many books, they may still have a favorite one that they request to be read over and over.

A. EMERGENT READING

1. Shows motivation for reading (continued)

Benchmark c: Child asks to be read to or asks the meaning of written text.

Prekindergarten children demonstrate motivation for reading by:

- requesting that the teacher read a particular book
- showing the teacher a note from home and asking what it says
- asking the meaning of the writing on the side of a delivery van.

Instructional Strategies

- Model getting meaning from text in books and other print in the classroom.
- Encourage children to ask questions about meaning and purposes of written language.
- Discuss meanings of words and passages before and after reading text.

Environmental Considerations

Provide a parent bulletin board with suggestions regarding reading activities and create take-home reading activities.

Teacher Planning and Reflection

[illegible]

The development of **phonological awareness** proceeds from an ability to hear separately and manipulate the biggest concrete sound sections in words (e.g., words in a sentence, word parts in a compound word), to an ability to hear and manipulate the smaller, more abstract sound sections of words (e.g., syllables, and eventually the smallest sound parts, the **phonemes**). The benchmarks follow this pattern of development.

IV. Language and Communication
A.1., B.1., C.1., D.1.

At the same time that they are developing phonological awareness, even well before they can manipulate the smaller sound sections, children enjoy hearing songs and stories that *rhyme*, as this helps focus their attention on the sound patterns in words, rather than just on the word meanings.

Benchmark b: Child combines syllables into words (e.g., "sis" + "ter" = "sister").

- providing the second **syllable** of familiar words when the teacher says the first **syllable** (e.g., says “cil” when teacher says “pen”)
- identifying the number of syllables in their own names
- hearing a familiar word and identifying whether it has one, two, or three syllables.

- Play a clapping game, clapping once while saying each ***syllable*** in children's names, and encourage children to join in.
- Provide pictures of familiar two-***syllable*** words cut into two pieces. First model, then encourage children to practice putting the pictures together while saying the word aloud.
- Say the first ***syllable*** in a familiar two-***syllable*** word and have children provide the second ***syllable***.

Look for many opportunities and locations to include children's names in the print in the early learning environment.

Teacher Planning and Reflection

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IV. Language and Communication

C.1.

The first letter that children typically recognize, name, and sound out is the first letter of their name.

A. EMERGENT READING

3. Shows *alphabetic knowledge*

As four-year-old children are exposed to books and other forms of writing, their interest in letters increases. Although they initially feel that they “own” letters (e.g., “That’s my ‘S!’”) or confuse letters with numerals and other symbols, they soon realize that letters are the building blocks of words. With continued adult guidance, they can learn the names of letters, identify most letters in varied contexts, and match some sounds with letters.

Benchmark a: Child recognizes almost all letters by name (e.g., when shown a group of letters, can accurately identify the letter that is named).

Prekindergarten children demonstrate *alphabetic knowledge* by:

- pointing to a letter, rather than an entire word, in print when asked to identify a letter
- pointing correctly to letters said by the teacher
- identifying the letters in their names.

Instructional Strategies

- Ask children to point to a specific letter within a printed word that is part of a poem, song, sign, book, or other written text.
- Give children a **set** of three to five letters and ask them to find a target letter.

- Print letters in multiple fonts, cut them out, and help children sort them into same-letter piles.

Environmental Considerations

Include adaptations for children with hearing and vision problems and disabilities.

Teacher Planning and Reflection

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

V. Emergent Literacy

Related Skills within the Standards

IV. Language and Communication

Further Clarifications

Provide information to parents regarding appropriate **alphabetic knowledge** expectations for their children.

A. EMERGENT READING

3. Shows *alphabetic knowledge* (continued)

Benchmark b: Child names most letters (e.g., when shown a letter, can accurately say its name).

Prekindergarten children demonstrate *alphabetic knowledge* by:

- identifying upper case letters as the class sings an alphabet song
- naming letters on a sign in the classroom
- participating in circle time alphabet identification games.

Instructional Strategies

- Give children frequent opportunities to say aloud the name of letters when shown them on cards, posters, or alphabet manipulatives.
- Ask children to name the first letter in a word or to find a target letter when reading books.
- Have children match magnetic letters on a magnetic board and have them say each letter name aloud as it is matched.

Environmental Considerations

Include print with uppercase (capital) and lowercase letters throughout the classroom.

Teacher Planning and Reflection

[illegible]

IV. Language and Communication

C.1.

The letter sounds in their own names are the first letter sounds that children will be most likely to name.

A. EMERGENT READING

3. Shows *alphabetic knowledge* (continued)

Benchmark c: Child names some letter sounds (e.g., when shown a letter, can accurately say the sound the letter makes).

Prekindergarten children demonstrate *alphabetic knowledge* by:

- making the correct sound for the first letters of their names
- naming the letter sounds in their first name as they attempt to write them
- saying the correct letter sound while pointing to a letter in a book.

Instructional Strategies

- Ask children to say the sound of a letter within a word written in a poem, song, sign, book, or other printed text.
- Give children a **set** of three to five letters and ask them to say the sound each letter makes.
- Model spelling children's names aloud using letter sounds instead of letter names, and provide children with opportunities to practice this with their own and each other's names.

Environmental Considerations

Provide a variety of alphabet materials and manipulatives (e.g., magnets, building blocks, posters, cards, puzzles, alphabet books, lacing beads).

Teacher Planning and Reflection

[illegible]

V. Emergent Literacy

Related Skills within the Standards

IV. Language and Communication

C.1.

Further Clarifications

Provide families with suggestions for appropriate ***emergent literacy*** activities to do at home.

A. EMERGENT READING

3. Shows *alphabetic knowledge* (continued)

Benchmark d: Child recognizes some letter sounds (e.g., when shown a group of letters, can accurately identify the letter of the sound given).

Prekindergarten children demonstrate *alphabetic knowledge* by:

- identifying the letter associated with the sound of the first letter of their name
- participating in circle time letter-sound identification games.

Instructional Strategies

- Instruct children in matching letter sounds to the letter name and the printed letter shape.
- Play a game matching children to the first sound in each of their names.
- Provide a variety of familiar objects for children to sort into first sound piles.

Environmental Considerations

Make and/or collect a variety of letters to use for instructional opportunities.

Teacher Planning and Reflection

[illegible]

V. Emergent Literacy

Related Skills within the Standards

I. Physical Health

A.3.

II. Approaches to Learning

A.1., C.1., D.1.

III. Social and Emotional Development

A.2., D.2.

IV. Language and Communication

A.1., B.1., C.1., C.2., D.2., E.1.

VII. Social Studies and The Arts

B(a).3., B(b).1.

Further Clarifications

Children normally act out what they understand. Observe children as they play to see what they have retained from lessons, stories, and conversations.

A. EMERGENT READING

4. Shows understanding of text read aloud

As four-year-old children become involved with familiar stories, their **comprehension** grows. They begin retelling stories in a variety of ways (e.g., looking at the pictures and making up the text, acting out part of the story in dramatic play, or telling the story using a flannel board) and asking why things happened as they did. With teacher guidance, they can begin to guess or make predictions about what will happen next and to connect the story to their own experiences.

Benchmark a: Child retells or reenacts a story after it is read aloud.

Prekindergarten children show understanding of text read aloud by:

- acting out a familiar story with their classmates
- retelling the main events of a story
- telling about when the family car was towed after hearing a story about a tow truck
- “reading” using visual cues to remember the words of their favorite stories
- making up original or creative endings for stories.

Instructional Strategies

- Provide dramatic play props for children to use when reenacting a fairy tale or familiar short story read aloud.
- Help children retell a story with a clear beginning, middle, and end, sometimes using picture sequence cards of stories.

- Provide flannel board materials and/or hand puppets for children to use when retelling a familiar story aloud with peers.

Environmental Considerations

Make and/or collect a variety of props to be used to retell favorite stories.

Teacher Planning and Reflection

VII. Social Studies and
The Arts
B(a).3., B(b).1.

Include books and stories in the classroom that are reflective of diverse languages and cultures.

Benchmark b: Child asks and answers appropriate questions about the story (e.g., “What just happened?” “What might happen next?” “What would happen if...?” “What was so silly about...?”).

- asking questions and making comments about a story
- enjoying listening to books and guessing what might happen next
- proposing different possible endings to a story.

- Provide experiences that relate to specific aspects of a story plot.
- Encourage children to make predictions by stopping at strategic points in a story and having children discuss or draw pictures.
- Help children create new endings to familiar stories using props, puppets, and dictation.

Include sufficient time in the schedule for **reflection**, and place writing and documentation materials in easy-to-access spaces throughout the room.

Teacher Planning and Reflection

V. Emergent Literacy

Related Skills within the Standards

I. Physical Health

A.1., A.2

II. Approaches to Learning

A.1., C.1., D.1.

III. Social and Emotional Development

A.1., A.2., B.2.

VII. Social Studies and The Arts

B(a).1.

VIII. Motor Development

B.1., B.2., B.3.

Further Clarifications

Materials that can easily be corrected by children (e.g., white boards, chalk boards) are called “forgiving materials.”

B. EMERGENT WRITING

1. Shows motivation to engage in written expression

Four-year-old children are anxious to be writers.

They attempt to write by scribbling, drawing, and creating pictographs and enjoy sharing these expressions with adults and peers. When asked about a drawing, prekindergarten children often tell a story and take pride in the words written down by the teacher.

Benchmark: Child intentionally uses scribbles/writing to convey meaning (e.g., signing artwork, captioning, labeling, creating lists, making notes).

Prekindergarten children demonstrate motivation to engage in written expression by:

- signing their name to a drawing
- using letter-like shapes in a grocery list created during dramatic play
- writing a few letters or mock letters as a caption under a drawing
- tracing letters in the sand at the sand table
- building a block structure to represent the fire station in a story and asking the teacher for help writing "fire station."

Instructional Strategies

- Include writing materials in all areas of the classroom.
- Encourage children to create signs for dramatic play or block play.

- Model signing name to art work or writing a shopping list for the grocery store and encourage children to do the same.

Environmental Considerations

Provide writing materials (e.g., paper, pencils, crayons, white boards, sidewalk chalk, keyboards) for children to use regularly.

Teacher Planning and Reflection

[illegible]

VIII. Motor Development

Teacher Planning and Reflection

VIII. Motor Development

B.1., B.2., B.3.

Celebrate all attempts
at writing!

Teacher Planning and Reflection

V. Emergent Literacy

Related Skills within the Standards

I. Physical Health

A.1., A.2.

II. Approaches to Learning

A.1.

III. Social and Emotional Development

A.2.

IV. Language and Communication

C.1., C.2., D.2.

VIII. Motor Development

B.1., B.2., B.3.

Further Clarifications

Make sure to read and reread group compositions. Hang up class writings at children's eye level and ask children to "read" the familiar print.

B. EMERGENT WRITING

4. Shows knowledge of structure of written composition

Four-year-old children are beginning to learn how print works. They understand that speech can be written down and then read, and that the print on a page conveys the story. They have some awareness that reading is done from top to bottom and left to right, and are beginning to acquire the concept of a "word." Prekindergarten children understand that print takes different forms (e.g., grocery lists, signs, letters, stories) and that it can be read for enjoyment, as well as for informational purposes.

Benchmark: When writing or dictating, child uses appropriate *writing conventions* (e.g., a letter starts with "Dear" or the idea that a story has a beginning, middle, and end).

Prekindergarten children show knowledge of structure of written composition by:

- scribbling a list starting at the top of the page
- dictating a story and, when finished, saying, "the end"
- participating in writing a group story and making a suggestion based on what has already been said
- writing their first and last names and leaving a space between the two names.

Instructional Strategies

- Write thank you letters along with the children after field trips to the fire station, zoo, and bakery.

- Write a to-do list and encourage children to write their own.
- Prompt children to provide a clear beginning, middle, and end to their stories when taking dictation.

Environmental Considerations

Provide many writing implements (e.g., crayons, markers, paints, pencils, and chalk) and types of paper to record and post written compositions. When writing with a small or large group, use chart paper or large sheets of bulletin board paper to allow children to see the teacher model the writing process and to interact with print.

Teacher Planning and Reflection

Emergent Literacy Glossary

alliteracy – knowing how to read but not having the desire to read.

alphabetic knowledge – knowing that words are composed of letters; the understanding that letters and letter combinations represent individual phonemes in words and written language (e.g., a child says the letters in some words, a child tells a teacher or a friend the letters in his/her name).

blend – to combine sounds rapidly, in order to accurately represent the word.

centers – areas within the classroom arranged so that children are able to participate in a variety of learning experiences relating to art, science, reading, dramatic play, blocks, etc. (e.g., an art center, a reading center, a science center, a block center, a dramatic play center, or a writing center).

comprehension – understanding what one has heard or what one has read (e.g., a child is able to answer questions or make comments about a story that someone has read to them).

decode – the understanding that alphabet letters make identifiable sounds and have meaning.

developmentally appropriate – decisions about the well-being and education of children based on at least three important kinds of information or knowledge: (a) what is known about child development and learning; (b) what is known about the strengths, interests, and needs of each individual child in the group; and (c) knowledge of the social and cultural contexts in which children live (Bredekamp and Copple, 1997).

emergent literacy – the range of a child's developmental skills, knowledge, and attitudes beginning at birth, that combine with a variety of experiences related to written language; these experiences produce behaviors that change over time and result in conventional literacy during middle childhood.

emergent reading – reading-related experiences and actions that occur before a child reaches the conventional literacy stage in middle childhood (e.g., a child shows interest in being read to and told what written words mean, and develops an understanding of how to use the books and other printed materials appropriately).

Emergent Literacy Glossary (continued)

emergent writing – writing-related experiences and actions that occur before a child reaches the conventional literacy stage in middle childhood (e.g., a child draws pictures or symbols to represent words).

illiteracy – not knowing how to read.

invented spelling – a child's first attempts to connect sounds with written letters (e.g., a child tries to spell the word cat and writes "kat" instead of "cat").

literacy – the ability to read and write.

onset – the initial **sound** of a syllable (e.g., the onset of cat is /c/; the onset of cheese is /ch/).

oral language – spoken language.

phonemes – the smallest part of spoken language that makes a difference in the meaning of words (e.g., /th/, /sh/, /c/, /t/, /s/). English has 44 phonemes. Spanish has 29 phonemes.

phonological awareness – the sensitivity to, or the awareness of, the phonological structure in one's language. A broad term, phonological awareness encompasses awareness of individual words in sentences, syllables, and onset/rime segments, as well as awareness of individual phonemes.

rhyme – correspondence of sound between words or endings of words (e.g., *cat* and *bat*, *sit* and *fit*, *mad* and *dad*).

rime – the part of a syllable that contains the vowel and all the sounds that follow it (e.g., the rime of *cat* is /at/; the rime of *cheese* is /ez/).

set – a group of objects.

skills – the ability to use knowledge effectively and readily in performance; the ability to transform knowledge into action.

syllable – a word part that contains one vowel or, in spoken language, a vowel sound (e.g., sun-shine; news-pa-per; and can-dy).

Emergent Literacy Glossary (continued)

vocabulary – all of the words of a language (e.g., receptive vocabulary and expressive vocabulary).

writing conventions – practices that include beginning a letter with a greeting such as “Dear” or “To Whom it May Concern,” ending a story with “the end,” and other regularly used practices.



VI. Mathematical and Scientific Thinking Standards

A. Mathematical Thinking

A(a). Number Sense

1. Demonstrates understanding of one-to-one correspondence
Benchmark a: Child demonstrates one-to-one correspondence when counting.
Benchmark b: Child demonstrates one-to-one correspondence to determine if two sets are equal.
2. Shows understanding of how to count and construct **sets**
Benchmark a: Child counts sets in the range of 10 to 15 objects.
Benchmark b: Child constructs sets in the range of 10 to 15 objects.
3. Shows understanding by participating in the comparison of quantities
Benchmark a: Child compares two sets to determine if they are equal.
Benchmark b: Child compares two sets to determine if one **set** has more.
Benchmark c: Child compares two sets to determine if one **set** has less.
Benchmark d: Child determines one **set** of objects is a lot more than another **set** of objects.

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4. Assigns and relates numerical representations among numerals (written), sets of objects, and number names (spoken) in the range of five to ten
5. Counts and knows the sequence of number names (spoken)
Benchmark a: Child counts and recognizes number names (spoken) in the range of 10 to 15.
Benchmark b: Child counts up through 31 by understanding the pattern of adding by one, with teacher support and multiple experiences over time.
6. Shows understanding of and uses appropriate terms to describe ordinal positions
Benchmark a: Child demonstrates the concept of ordinal position with concrete objects (e.g., children or objects).
Benchmark b: Child names ordinal positions (e.g., first, second, third, fourth, fifth).

VI. Mathematical and Scientific Thinking Standards (continued)

A(b). Number and Operations

1. Shows understanding of how to combine sets and remove from a concrete **set** of objects (receptive knowledge)
Benchmark a: Child indicates there are more when they combine (add) sets of objects together.
Benchmark b: Child indicates there are less when they remove (subtract) objects from a **set**.
2. Shows understanding of addition and subtraction using a concrete **set** of objects (expressive knowledge) or story problems found in everyday classroom activities
Benchmark a: Child combines sets of objects to equal a **set** no larger than ten.
Benchmark b: Child removes objects from a **set** no larger than ten.
Benchmark c: Child uses concrete objects to solve complex problems (e.g., fingers, blocks).
3. Begins to develop an understanding of separating a **set** into a maximum of four parts, with teacher support and multiple experiences over time

A(c). Patterns and Seriation

1. Recognizes patterns and non-patterns (e.g., red/blue, red/blue vs. rainbow)
2. Duplicates identical patterns with at least two elements
3. Recognizes pattern units (e.g., red/blue, dog/cat; red/blue/yellow, dog/cat/cow)
4. Orders, compares, and describes objects according to a single attribute (seriation)
Benchmark a: Child places objects in increasing order of size where the increasing unit is constant (e.g., unit blocks).
Benchmark b: Child verbalizes why objects were placed in order (e.g., describes process of how and why), with teacher support and multiple experiences over time.

VI. Mathematical and Scientific Thinking Standards (continued)

A(d). Geometry

1. Understands various two-dimensional shapes, including **circle, triangle, square, rectangle, oval**, and other less common shapes (e.g., trapezoid)
Benchmark a: Child categorizes (sorts) examples of two-dimensional shapes.
Benchmark b: Child names two-dimensional shapes.
Benchmark c: Child constructs examples of two-dimensional shapes.
Benchmark d: Child identifies the number of sides of two-dimensional shapes.
2. Shows understanding that two-dimensional shapes are **equivalent** (remain the same) in different **orientations**
Benchmark a: Child slides shapes, with teacher support and multiple experiences over time.
Benchmark b: Child flips shapes, with teacher support and multiple experiences over time.
Benchmark c: Child rotates shapes, with teacher support and multiple experiences over time.
3. Understands various three-dimensional shapes, including **sphere, cube**, cone, and other less common shapes (e.g., cylinder, pyramid)
Benchmark a: Child categorizes (sorts) examples of three-dimensional shapes.
Benchmark b: Child names three-dimensional shapes.

4. Analyzes and constructs examples of simple **symmetry** and non-symmetry in two-dimensions, using concrete objects

A(e). Spatial Relations

1. Shows understanding of and uses several positional words (e.g., above, below, next to, beside, on top of, inside, outside)
Benchmark a: Child shows understanding of positional words (receptive knowledge).
Benchmark b: Child uses the positional terms verbally (expressive knowledge) (e.g., above, below, next to, beside, on top of, inside and outside), with teacher support and multiple experiences over time.
2. Describes relative position from different perspectives (e.g., "I am on top of the climber and you are below me.")
3. Understands and can tell the difference between orientation terms such as horizontal, diagonal, and vertical
4. Uses directions to move through space and find places in space (e.g., obstacle courses, *Simon Says*, *Mother May I?*, hop scotch, giving simple directions)

VI. Mathematical and Scientific Thinking Standards (continued)

A(f). Measurement

1. Compares continuous quantities using length, weight, and height

Benchmark a: Child measures or compares the length of one or more objects using a non-standard reference (e.g., paper clips), with teacher support and multiple experiences over time.

Benchmark b: Child measures or compares the weight of one or more objects using non-standard reference (e.g., beans), with teacher support and multiple experiences over time.

Benchmark c: Child measures or compares the height of one or more objects using non-standard reference (e.g., pencils), with teacher support and multiple experiences over time.

Benchmark d: Child uses measurement vocabulary (e.g., length, weight, height) and comparative terminology (e.g., more, less, shorter, longer, heaviest, lightest), with teacher support and multiple experiences over time.

2. Represents and analyzes data

Benchmark a: Child assists with collecting and sorting materials to be graphed.

Benchmark b: Child works, with teacher and small groups, to represent mathematical relations in charts and graphs.

Benchmark c: Child analyzes, with teacher and small groups, the relationship between items/objects represented by charts and graphs.

Benchmark d: Child predicts the results of a data collection, with teacher support and multiple experiences over time.

B. Scientific Thinking

B(a). Inquiry

1. Asks questions and uses senses to observe and explore materials and natural phenomena
2. Uses simple tools and equipment for investigation
3. Makes comparisons among objects

VI. Mathematical and Scientific Thinking

Mathematical thinking is the first component, and refers to the study of quantities and their relationships. There are six areas in which four-year-old children demonstrate mathematical skills. The first area, *number sense*, involves the four-year-old child's ability to count and construct sets of objects, use one-to-one correspondence, and understand whether two sets are equal or one set has more or less. *Number and operations*, the second area, focuses on developing children's skills in manipulating sets of numbers (e.g., combining sets of concrete objects and taking objects away from a set). The third area, *patterns and seriation*, outlines the four-year-old's skills in recognizing and creating patterns, as well as ordering objects in a series (seriation). *Geometry*, the fourth area, identifies children's growing abilities to recognize, manipulate, and compare two-dimensional shapes that are common in their world, using a variety of concrete objects. Children also begin to identify and compare three-dimensional shapes and to explore symmetry as they build with blocks and other concrete objects. The fifth area, *spatial relations*, focuses on language, such as positional words, that helps children to understand and describe their world as they become more proficient in relating to others. *Measurement*, the sixth area, helps children to understand and make sense of their world as they compare quantities using length, weight, and height and represent and analyze data.

Scientific thinking is the second component. The area of *inquiry* is demonstrated when children ask questions, use simple tools, and make comparisons. The natural world and physical events are fascinating to four-year-old children. When adults respond to children's questions, inquisitiveness and scientific thinking are fostered.

Note: Benchmarks for development are included in the mathematical thinking component. Benchmarks are more precise than the standards and are set to reflect the level of skill and knowledge that should be demonstrated by a child **at the end of their VPK experience** (when most, if not all, of the children would be five years of age).

VI. Mathematical and Scientific Thinking (continued)

Strategies to Support Inclusive Learning Environments

- Simplify a complicated task by breaking it into smaller parts or reducing the number of steps.
- Use shorter but more frequent activities and routines.
- Use special or adaptive devices to increase a child's level of participation.
- Encourage hands-on and sensory experiences (e.g., touching, holding, exploring, tasting, smelling, and manipulating).
- Provide physical guidance/support in using materials when needed.
- Structure the environment so that materials are easily accessible to encourage participation.
- Adapt the environment to promote participation, engagement, and learning using a variety of textures.
- Use specialized equipment to increase access to activities and play areas.
- Provide opportunities to experiment with new tasks, materials, and activities.
- Provide activities and materials that appeal to the interests and abilities of the entire range of children in a class.

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c).

VIII. Motor Development

B.1., B.2.

Further Clarifications

Mathematics is the study of quantities and their relationships.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

1. Demonstrates understanding of *one-to-one correspondence*

Four-year-old children are able to demonstrate their knowledge of ***one-to-one correspondence*** while counting and comparing objects. Children this age enjoy helping out in the classroom (e.g., handing out a napkin to each child at snack time or passing a rest mat out to each child), and these types of activities help them gain further understanding of one-to-one correspondence.

Benchmark a: Child demonstrates *one-to-one correspondence* when counting.

Prekindergarten children demonstrate their understanding of *one-to-one correspondence* by:

- passing out a napkin, a cup, a snack, or utensil to each child at snack time
- counting toys in a pile while keeping track of which toys have already been counted
- pointing to each object as they count and assigning the appropriate number to each object.

Instructional Strategies

- When preparing for rest time, choose a different child each day to pass out one blanket for each rest mat.
- Create opportunities for children to count objects while placing them into individual containers (e.g., counting eggs while putting them back into the carton).
- Choose a different snack helper each day to count out one napkin and/or one snack for each child.

- When setting up the easel, ask a child to make sure that each paint cup has one brush.

Environmental Considerations

Add ice cube trays or the bottom section of an egg carton to the math area so that children can place an object in each section as they count.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c).

VIII. Motor Development

B.1..B.2.

Further Clarifications

Opportunities for children to count should be included in the daily activities and routines.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

1. Demonstrates understanding of one-to-one correspondence (continued)

Benchmark b: Child demonstrates one-to-one correspondence to determine if two sets are equal.

Prekindergarten children demonstrate one-to-one correspondence to determine if two sets are equal by:

- saying that they will need more hangers, while hanging a pile of shirts on hangers, given the number of shirts remaining in the pile
- counting two separate groups of children to determine if they are equal
- counting two separate piles of coins to determine if they are equal
- counting two separate boxes of crayons to determine if they are equal.

Instructional Strategies

- Provide materials that may be used for one-to-one matching activities (e.g., pegs and peg boards, nuts and bolts).
- Model counting using one-to-one correspondence to determine if two sets are equal with a variety of concrete objects (e.g., children, coins, crayons, rocks).
- At snack time, assist the children in counting the napkins and snacks to see if the two sets are equal.
- In the dramatic play area, provide the children with an equal number of doll dresses and dolls. Ask the children if there are enough dresses to clothe the dolls.

Environmental Considerations

Include many types of manipulatives that children can use for counting and set-making throughout the classroom (e.g., small toy animals in the block area, collage materials in the art area).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VIII. Motor Development
B.1., B.2.

Further Clarifications

For children who consistently create sets in the range of 10 to 15 objects, more objects can be used to provide appropriate challenges.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

2. Shows understanding of how to count and construct sets (continued)

Benchmark b: Child constructs sets in the range of 10 to 15 objects.

Prekindergarten children construct sets in the range of 10 to 15 object by:

- sorting the markers and crayons into the appropriate baskets and telling how many markers and how many crayons there are in each basket
- counting the miniature people and the toy cars in the block area, and saying how many are in each group
- counting a pile of rocks and a pile of leaves while on the playground and telling how many are in each pile.

Instructional Strategies

- Display a variety of common objects throughout the classroom that can be used to construct sets (e.g., paper clips, crayons, hats, pencils, and markers).
- Model constructing sets of concrete objects (e.g., raisins in snack bags).
- Incorporate constructing sets into everyday activities (e.g., asking a child to count 12 cups and give one to each child at the lunch table).

Environmental Considerations

Include a variety of manipulatives for children to count and compare.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c).

VI. Mathematical and Scientific Thinking

B(a).3.

VIII. Motor Development

B.1., B.2.

Further Clarifications

A classroom environment with a variety of rich materials and objects can set the stage for learning mathematics.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

3. Shows understanding by participating in the comparison of quantities

With the ability to count 10 to 15 objects, children can build on this concept by counting two different sets of objects and determining which **set** has more, which has less, or if the two sets are equal. Four-year-old children are just learning that the next number in the counting sequence is one more than the number just named and continue to explore the meaning of “more” and “less.”

Benchmark a: Child compares two sets to determine if they are equal.

Prekindergarten children demonstrate they can compare two sets to determine if they are equal by:

- recognizing that two different trains have an equal number of boxcars
- saying that two children have the same number of crayons
- noticing that each child received an equal number of crackers for snack.

Instructional Strategies

- During small group, provide two sets of objects for children to compare.
- After reading *Goldilocks and the Three Bears* and *The Three Little Pigs*, discuss if the set of bears is equal in number to the **set** of pigs (e.g., use small toy pigs and bears or chart paper and markers to visually compare the bears and pigs).

- Go on a nature walk with the children and collect small objects that can be used to create and compare two sets and to determine if the sets are equal (e.g., acorns, pine cones, small sticks and rocks).

Environmental Considerations

Teachers should include groups of objects in interesting containers throughout the classroom for children to manipulate and count.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication
C.1.(a), C.1.(b), C.1.(c).

VI. Mathematical and Scientific Thinking
B(a).3.

VIII. Motor Development
B.1., B.2.

Further Clarifications

Teachable moments require the teacher's careful observation of children's play and other activities in order to identify the spontaneously emerging situation that can be used to promote learning.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

3. Shows understanding by participating in the comparison of quantities (continued)

Benchmark c: Child compares two sets to determine if one **set** has less.

Prekindergarten children show they can compare two sets to determine if one set has less by:

- observing that one child has less popsicle sticks than another child
- recognizing that one group of children is less than another
- noticing that one child has less cubes than another child
- saying that there are fewer (less) markers in one box than another box.

Instructional Strategies

- During circle time, include opportunities to compare two sets of objects to determine if one **set** has less (e.g., comparing the number of children wearing jeans the number of children wearing shorts in the class).
- Provide opportunities for children to compare two sets of objects to compare and determine if one **set** has less, each day.
- During center time, model comparing two sets of objects by counting to determine if one **set** has less.

Environmental Considerations

Include a variety of objects and materials in the classroom (e.g., blocks, dramatic play props, puzzles) that can set the stage for learning mathematics.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c).

VIII. Motor Development

B.1., B.2.

Further Clarifications

Beginning around age two, children learn the language and grammar of counting.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

5. Counts and knows the sequence of number names (spoken)

Most four-year-old children are able to count numbers orally up to ten. As four-year-old children begin to understand the concept of a **pattern**, they can also begin to recognize patterns that occur in counting. Numbers from one to twelve must be memorized, since there is no **pattern**. Numbers thirteen through nineteen have a **pattern** (thirteen=three & ten, fourteen=four & ten...), but it is opposite of the **pattern** used after nineteen (twenty=two & ten, twenty-one=twenty & one). Children begin to understand this **pattern** that can help them count larger quantities later, so counting through at least 31 shows they are beginning to understand the **pattern** of how numbers grow.

Benchmark a: Child counts and recognizes number names (spoken) in the range of 10 to 15.

Prekindergarten children show they can verbally count and recognize number names by:

- counting aloud up to 15 using the correct number names
- counting orally up to 10 and using the correct number names
- verbally counting up to 12 using the correct number names.

Instructional Strategies

- Model for children how to count and correctly use number names throughout daily routines and experiences.
- Teach counting songs, finger plays, and simple games.

Environmental Considerations

Include numeral names from the different languages spoken by the children within the classroom (e.g., in songs, poems, counting books, finger plays and on labels).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(c).

VI. Mathematical and Scientific Thinking

A(b).2.(e).

VIII. Motor Development

B.1., B.2.

Further Clarifications

Children spontaneously count every day in the learning environment.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

5. Counts and knows the sequence of number names (spoken) (continued)

Benchmark b: Child counts up through 31 by understanding the *pattern* of adding by one, with teacher support and multiple experiences over time.

Prekindergarten children show they understand the pattern of adding by one to count up through 31 by:

- counting aloud through at least 31, with teacher support and multiple experiences over time.

Instructional Strategies

- Count with the children as they string objects with a hole; counting through 31 (e.g., cereal, beads).
- During small group or center time, provide materials for children to count through 31, with teacher support (e.g., large pegboards and a lot of pegs).

Environmental Considerations

Look for opportunities to use and display positional and ordinal words in the early learning environment.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication
C.1.(b).

Further Clarifications

Teachers can help children become familiar with various ways to show symbolic representations (e.g., drawings, graphs, words, numbers, tables and maps) for mathematical concepts and relationships.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

6. Shows understanding of and uses appropriate terms to describe **ordinal** positions

Ordinal numbers allow children to describe the position of an object. Children demonstrate their ability to do this by naming the **ordinal** positions for people or objects in a line and by placing objects in a certain position (e.g., first, second, third). Children may begin to name up to five ordinal positions as their understanding increases.

Benchmark a: Child demonstrates the concept of **ordinal** position with concrete objects (e.g., children or objects).

Prekindergarten children demonstrate they understand the concept of ordinal position by:

- identifying which child is first in line
- going to the appropriate place in line based on teacher directions (e.g., first, second, third)
- placing an item in the appropriate position based on another child's instructions (e.g., "Put the papa bear first, then mama bear second, and baby bear third.").

Instructional Strategies

- When lining up to go outside, tell the children you are going to count them in a special way (e.g., As you touch each child gently on the shoulder say, "First, second, third, fourth, fifth.").

- Play *I Spy* using **ordinal** positions with objects lined up on a table (e.g., "I Spy the fifth marker in the row. Can you find it and show me which one is fifth?").
- During cooking activities, discuss the order that ingredients should be added to the recipe (e.g., "First, we will add the flour. Second, we need one cup of milk. Third, we must stir in the eggs. Fourth, we will add ...").

Environmental Considerations

Arrange the early learning environment to promote social interaction and experimentation.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication
C.1.(a), C.1.(c).

Further Clarifications

Learning mathematics is a natural and developmentally appropriate activity for young children.

A. MATHEMATICAL THINKING

A(a). NUMBER SENSE

6. Shows understanding of and uses appropriate terms to describe *ordinal* positions (continued)

Benchmark b: Child names *ordinal* positions (e.g., first, second, third, fourth, fifth).

Prekindergarten children show they can name ordinal positions by:

- creating a row of animals in the block area and naming the position of each (e.g., first, second, third)
- naming the position of each train car after lining them up on the track (e.g., first, second, third)
- telling a friend the order of a routine task using ordinal positions
- responding to the teacher's questions about a book that was read (e.g., "Who was the first bear to come back in the house? Who was second? Who was third?").

Instructional Strategies

- When lining up for lunch, ask the children to help you count the class in a special way (e.g., "As I touch each child gently on the shoulder, repeat what I say." Then count each child using *ordinal* positions (e.g., first, second, third).
- Model a song, finger play, or poem using *ordinal* position words instead of number names (e.g., "Five little monkeys jumping on the bed. The first one fell off and bumped his head.").
- Create opportunities for children to follow directions that include ordinal position words and encourage children to

repeat the directions using the *ordinal* position words (e.g., "Simon says touch your head first, your mouth second, and your eyes third.").

Environmental Considerations

Create opportunities for children to develop number sense (e.g., counting, singing songs, reading books with counting words, playing board games with dice).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication
C.1.(b), E.1.
VI. Mathematical and Scientific Thinking
A(b).2.(b), B(a).3.

Further Clarifications

Encourage families to incorporate mathematical thinking and language into the home environment.

A. MATHEMATICAL THINKING

A(b). NUMBER AND OPERATIONS

1. Shows understanding of how to combine sets and remove from a concrete set of objects (receptive knowledge)

Once children have developed the ability to count 10 to 15 objects, they can begin to combine (add) sets of objects together and remove (subtract) objects from sets. Their understanding of counting will assist them to determine if there are more or less objects than before the adding or subtracting took place.

Benchmark a: Child indicates there are more when they combine (add) sets of objects together.

Prekindergarten children show they understand there are more when they combine (add) sets of objects together by:

- commenting that there are more cars in line for the car wash after another child added some toy cars to the line
- explaining that there are more crayons now that the teacher added two new boxes to the art area
- stating that there are now more toy animals after a friend added four toy horses to the group.

Instructional Strategies

- Assist children in combining two separate sets of objects and ask if there are more (e.g., "If we start with three blocks and

then combine them with two more blocks, do we have the same amount we started with, or more?").

- Invite two children to join the class and ask if there are more or less than before.
- Look for opportunities to model combining two sets of objects and ask if there are more or less than before.

Environmental Considerations

Provide children with easy access to many types of manipulatives (e.g., small animals, pegs, blocks).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(b), E.1.

VI. Mathematical and Scientific Thinking

A(b).2.(b), B(a).3.

Further Clarifications

Teachers support the development of logical reasoning skills by helping children make connections between events (e.g., "You started with a set of frogs that were blue, green, or yellow. What happened when you took away the green frogs from the set?").

A. MATHEMATICAL THINKING

A(b). NUMBER AND OPERATIONS

1. Shows understanding of how to combine sets and remove from a concrete set of objects (receptive knowledge) (continued)

Benchmark b: Child indicates there are less when they remove (subtract) objects from a **set**.

Prekindergarten children show they understand there are less when they remove (subtract) objects from a **set** by:

- telling a friend that there are less blocks to play with now that the teacher removed the blue ones
- recognizing that there are less children at school today because three children are out sick
- singing *Five Green and Speckled Frogs* and noting that each time one of the frogs jumps into the pool, that there are less in the **set**.

Instructional Strategies

- Show the children a stack of objects. Then remove some of the objects from the stack and ask if there are more or less than before.
- Ask one child to hide in another area of the classroom then ask the other children if there are more or less children in the group than before.
- Remove some books from the book shelf and ask if there are more or less books than before.

- Incorporate songs, finger plays, and games that focus on removing objects from a set (e.g., *Five Green and Speckled Frogs*).

Environmental Considerations

Provide opportunities for children to create, describe, and display sets in the early learning environment.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VIII. Motor Development
B.1., B.2.

Further Clarifications

Working with other children and using active learning to experiment will help children to develop important foundational mathematics skills.

A. MATHEMATICAL THINKING

A(b). NUMBER AND OPERATIONS

2. Shows understanding of addition and subtraction using a concrete set of objects (expressive knowledge) or story problems found in everyday classroom activities

Using real-world meaningful experiences, children are guided through basic stories that tell about objects being added or subtracted. Through the story line, adults are able to guide children in determining the answer to these basic addition and subtraction questions. With guidance, and in a classroom that supports asking questions, prekindergarten children can begin to solve simple mathematical problems in concrete ways and offer basic explanations for their solutions.

Benchmark a: Child combines sets of objects to equal a **set** no larger than ten.

Prekindergarten children show their understanding of addition by:

- commenting that the train has five cars, after watching a friend connect a train with two cars to a second train with three cars
- giving a friend with two grapes, three more grapes and saying, "Now you have five grapes."
- building a stack of five blocks and saying, "I have seven blocks" after adding two blocks to the set of five blocks.

Instructional Strategies

- Incorporate songs, finger plays, and games that focus on adding sets of objects to equal a **set** no larger than ten.

- Talk with children about combining sets of objects to equal a **set** no larger than ten (e.g., While playing in the sand table, the teacher says, "Look, I found five white shells and two brown shells. How many shells do I have altogether?").
- Combine two sets of objects to equal a **set** no larger than ten (e.g., combine (add) two markers to five markers and count the total number of markers).

Environmental Considerations

Include many types of manipulatives that children can use to create sets throughout the classroom (e.g., small animals, pegs, blocks).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VIII. Motor Development
B.1., B.2.

Further Clarifications

Children have the potential and desire to learn mathematics.

A. MATHEMATICAL THINKING

A(b). NUMBER AND OPERATIONS

2. Shows understanding of addition and subtraction using a concrete set of objects (expressive knowledge) or story problems found in everyday classroom activities (continued)

Benchmark c: Child uses concrete objects to solve complex problems (e.g., fingers, blocks).

Prekindergarten children shown their understanding of how to solve complex problems by:

- recognizing that there are nine eggs after adding five eggs to the carton that already has four in it
- combining the number of cracker packages (six) and the number of juice boxes (six) and realizing that there are a total of 12 items for snack.

Instructional Strategies

- Encourage children to ask questions.
- Use charts, pictures and other displays to show problem-solving steps and efforts.
- Draw ten hopscotch squares and have the children count them. Then draw three more squares and ask the children to count how many total squares there are now. Ask the children if they would like to make the hopscotch bigger or smaller. Discuss how many you should combine (add) or remove (subtract) to change the hopscotch.

- counting the number of days it was sunny in a week, and then continue counting the number of days it was cloudy in the week to name how many days it was either sunny or cloudy.

Environmental Considerations

Label shelves in the math center so that children can sort materials independently or with teacher support as needed.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VIII. Motor Development

Further Clarifications

Everyday mathematics includes a variety of topics (e.g., number and operations, space, shape, and pattern).

A. MATHEMATICAL THINKING

A(b). NUMBER AND OPERATIONS

3. Begins to develop an understanding of separating a set into a maximum of four parts, with teacher support and multiple experiences over time.

Four-year-old children are beginning to learn how to share. While developing their interpersonal **skills**, the mathematical concept of simple division becomes important (e.g., A child has four cookies and wants to share them with three friends. He or she can separate the set of four cookies into four equal parts, by giving each friend one cookie and one to themselves).

Prekindergarten children show they understand how to separate a set into four parts by:

- separating a **set** of four cookies into four equal parts by giving three friends one cookie
- taking four books from the bookshelf and passing them out to four friends in the book area.

Instructional Strategies

- Model separating a **set** (e.g., tennis balls, cars), into four parts during small group time.
- Look for opportunities throughout the day to support children as they attempt to separate a **set** into four parts (e.g., during snack time or centers, on the playground).

Environmental Considerations

Create opportunities for children to practice mathematical skills during transitions (e.g., Ask each child to point to a shape in the classroom before going to centers).

Teacher Planning and Reflection

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VII. Social Studies and The Arts
B(a).1., B(a).2.

Further Clarifications

From birth to age five, young children develop in everyday mathematics (e.g., informal ideas of more and less, taking away, shape, size, location, pattern, and position).

A. MATHEMATICAL THINKING

A(c). PATTERNS AND SERIATION

1. Recognizes patterns and non-patterns (e.g., red/blue, red/blue vs. rainbow)

Recognizing and creating patterns introduces children to the concept of order in the world. Identifying and working with patterns helps children see relationships between objects. Four-year-old children's natural **curiosity** can be directed toward recognition of patterns. They can be encouraged to find patterns in nature and in the classroom.

Prekindergarten children demonstrate their understanding of patterns and non-patterns by:

- recognizing the **pattern** in a predictable book and saying the next line before turning the page
- saying that a row of cars in the block area is not a **pattern** (e.g., red car, blue car, red car, red car, green car)
- stringing beads in a repeating **pattern** (e.g., green, blue, green, blue).

Instructional Strategies

- Draw attention to patterns in nature (e.g., ridges in tree bark, veins in leaves).
- Show children examples of patterns and non-patterns. Provide a variety of materials for children create their own patterns.
- Create a visual display of patterns and non-patterns the children have created with a variety of materials (e.g., beads, pegs, leaves).

- Explicitly point out the pattern for children as you read picture books with predictable patterns and include them in the book area (e.g., *Brown Bear, Brown Bear*).

Environmental Considerations

Musical instruments, such as drums, help children understand musical patterns (e.g., high/low, high/low; long/short, long/short).

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VII. Social Studies and
The Arts
B(a).1., B(a).2.

Further Clarifications

Identifying patterns helps children to learn about predicting and generalizing.

A. MATHEMATICAL THINKING

A(c). PATTERNS AND SERIATION

2. Duplicates patterns with at least two elements

Creating patterns allows children to develop their concept of stability in the world. By duplicating identical patterns, children are better able to see relationships between objects. Four-year-old children can copy simple patterns with sounds and objects.

Prekindergarten children show they understand how to duplicate patterns with at least two elements by:

- duplicating the teacher's model of a **pattern** with linking cubes (e.g., yellow, green, yellow, green)
- copying a sound **pattern** of two claps and a pause, then one clap and a pause.

Instructional Strategies

- Play auditory ***pattern*** games beginning with two-part patterns then increasing complexity (e.g., using hand claps or leg slaps).
- Sing songs, recite poems, read stories with predictable patterns that children can repeat (e.g., *The Gingerbread Man*, *The Three Bears*, and *The Three Billy Goats Gruff*).
- Provide opportunities for children to duplicate patterns with at least two elements indoors and outdoors with a variety of materials (e.g., multicolored leaves on the playground, seashells in the sand table, trucks in the block area, shoes and hats in the dramatic play area).

Environmental Considerations

Provide a variety of pattern-making materials (e.g., beads, pegs, blocks) and encourage children to create their own patterns, with teacher support as needed.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VII. Social Studies and
The Arts
B(a).1., B(a).2.

Further Clarifications

Block play encourages inventive thinking and logical reasoning.

A. MATHEMATICAL THINKING

A(c). PATTERNS AND SERIATION

3. Recognizes pattern units (e.g., red/blue, dog/cat, red/blue/yellow, dog/cat/cow)

By recognizing a ***pattern unit***, children are able to determine the difference between a ***pattern*** and non-pattern. Patterns are an important concept for early mathematical development.

Prekindergarten children demonstrate their understanding of a *pattern unit* by:

- explaining the **pattern unit** they are working with (e.g., red/blue)
- repeating the **pattern** in a predictable story (e.g., *The Gingerbread Man*)
- putting popsicle sticks between pattern units in a repeating chain of links.

Instructional Strategies

- Create a display of visual patterns with children's arrangements of beads or pegs and ask, "What is the **pattern?**"
- Model isolating one unit of a **pattern** by separating one pattern unit from the rest (e.g., After reading *The Gingerbread Man*, ask the children, "What did the gingerbread boy say over and over again to everyone that was chasing him? That's right, he said, Run, run as fast as you can. You can't catch me I'm the gingerbread man.").
- Model how to separate one **pattern unit** from the rest by isolating one unit of a **pattern** (e.g., using fingers, beads, or sticks).

Environmental Considerations

Create opportunities for children to observe, create, describe, and display patterns in the early learning environment.

Teacher Planning and Reflection

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

- VI. Mathematical and Scientific Thinking
B(a).3.
- VII. Social Studies and The Arts
B(a).1.
- VIII. Motor Development
B.1., B.2.

Further Clarifications

Adults should use accurate math terminology in their daily conversations with children.

A. MATHEMATICAL THINKING

A(c). PATTERNS AND SERIATION

4. Orders, compares, and describes objects according to a single attribute (*seriation*)

Four-year-old children enjoy ordering objects because these activities help them gain control of their world by organizing it. After learning to order objects by one attribute or characteristic, some four-year-old children begin to explain why they placed objects in a certain order. Ordering and comparing objects introduces children to the logic of mathematical thinking.

Benchmark a: Child places objects in increasing order of size where the increasing unit is constant (e.g., unit blocks).

Prekindergarten children show they understand how to place objects in increasing order of size where the increasing unit is constant by:

- ordering their block buildings according to height (e.g., tall, taller, tallest)
- comparing several pieces of yarn in increasing order of size (e.g., short, shorter, shortest)
- describing three train tracks as long, longer, and longest.

Instructional Strategies

- Provide like objects for children to place in increasing order according to size (e.g., small, medium, large counting bears or frogs).

- Help children find objects in the classroom and in nature to place in increasing order according to size (e.g., shoes, blocks, books, cars, balls, flowers, leaves, seashells).
- Model appropriate math language as you place objects in increasing order of size where the increasing unit is constant (e.g., tall, taller, tallest; short, shorter, shortest; small, medium, large).

Environmental Considerations

Create an area where children can listen to songs and participate in musical activities that develop sensitivity to patterns in rhythm and body movements.

Teacher Planning and Reflection

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.2.(a).

Further Clarifications

New concepts are easier to learn when presented in a meaningful way and related to a concept the children have already been exposed to.

A. MATHEMATICAL THINKING

A(c). PATTERNS AND SERIATION

4. Orders, compares, and describes objects according to a single attribute (*seriation*) (continued)

Benchmark b: Child verbalizes why objects were placed in order (e.g., describes process of how and why), with teacher support and multiple experiences over time.

Prekindergarten children show their understanding of why objects were placed in order by:

- explaining how they ordered the tall, taller and tallest block buildings by height
- telling how they compared the short, shorter and shortest pieces of yarn and put them in order
- describing how they ordered three train tracks as long, longer and longest.

Instructional Strategies

- Model for children how to explain why objects were placed in order.
- Read picture books that order, compare, or describe objects according to a single attribute and include them in the book area (e.g., *Goldilocks and the Three Bears*).

Environmental Considerations

Post a large graph made from white vinyl with black tape lines for graphing objects.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.2.(b).

VIII. Motor Development

B.1., B.2.

Further Clarifications

Sorting shapes is an easier skill than naming objects.

A. MATHEMATICAL THINKING

A(d). GEOMETRY

1. Understands various two-dimensional shapes, including *circle, triangle, square, rectangle, oval*, and other less common shapes (e.g., trapezoid)

Four-year-old children are able to sort and name the shapes in their daily life experiences, as teachers and parents draw attention to shapes. As children become more familiar with shapes, they are able to construct shapes and begin to **analyze** details about shapes (e.g., how many sides each shape has).

Benchmark a: Child categorizes (sorts) examples of two-dimensional shapes.

Prekindergarten children show they understand how to categorize (sort) examples of two-dimensional shapes by:

- placing the correct shape in its container
- sorting cutout shapes into groups and describing the ways they have sorted the shapes (e.g., by color, shape, number of sides, texture)
- creating various piles for different shapes while playing in the construction area
- putting blocks away by size and shape.

Instructional Strategies

- Model sorting manipulatives of different sizes by shape.
- Create a large **circle**, **square**, and **triangle** on the floor out of string or masking tape; instruct children to find examples of

those shapes and place them inside the appropriate large shape on the floor.

- Provide containers that are labeled with pictures of various shapes, ask the children to sort a variety of shapes from a pile by placing them in the correct container.

Environmental Considerations

Create opportunities for children to use and display the names of two- and three-dimensional shapes in the early learning environment.

Teacher Planning and Reflection

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VIII. Motor Development

B.1., B.2.

Further Clarifications

Intentional teaching interactions occur when the adult deliberately focuses the interaction on a specific skill or concept.

A. MATHEMATICAL THINKING

A(d). GEOMETRY

2. Shows understanding that two-dimensional shapes are *equivalent* (remain the same) in different *orientations* (continued)

Benchmark c: Child rotates shapes, with teacher support and multiple experiences over time.

Prekindergarten children show they understand how to rotate shapes by:

- rotating a square and commenting that it is still a **square**.

Instructional Strategies

- Demonstrate rotating various shapes and noting that they are the same shape after rotating.
- Play *Simon Says* with children and provide instructions that have children rotate shapes and then name the shape.

Environmental Considerations

Help children label, describe, and display their completed structures in the block center.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.2.(b).

VIII. Motor Development

B.1., B.2.

Further Clarifications

Teachers can read books about mathematical concepts during circle time.

A. MATHEMATICAL THINKING

A(d). GEOMETRY

3. Understands various three-dimensional shapes, including *sphere*, *cube*, *cone*, and other less common shapes (e.g., *cylinder*, *pyramid*)

Four-year-old children are able to sort and name three-dimensional shapes through their daily life experiences and rich, hands-on play in the block area. As children become more familiar with three-dimensional shapes, they are able to identify them in the environment.

Benchmark a: Child categorizes (sorts) examples of three-dimensional shapes.

Prekindergarten children show they understand how to categorize (sort) examples of three-dimensional shapes by:

- placing all spheres in a basket and all cubes in a bag
- finding objects on the playground with three-dimensional shapes and sorting them
- sorting shapes by straight sides and curved sides.

Instructional Strategies

- Label three-dimensional shapes in classroom and describe how they are the same and different.
- Provide children with different three-dimensional shapes for them to sort.
- Show children a three-dimensional model of the earth or other planets. Explain to the children that planets are spheres.

Environmental Considerations

When adding mathematical terms to the early learning environment, be sure to print clearly and use pictures that illustrate the terms.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(c).

Further Clarifications

Block building can help children learn important spatial relationships.

A. MATHEMATICAL THINKING

A(d). GEOMETRY

3. Understands various three-dimensional shapes, including *sphere, cube, cone*, and other less common shapes (e.g., *cylinder, pyramid*) (continued)

Benchmark b: Child names three-dimensional shapes.

Prekindergarten children show they understand how to name three-dimensional shapes by:

- correctly labeling a **sphere** and other three-dimensional shapes
- naming shapes as teacher picks them up
- telling a friend that his ice cream is in a cone.

Instructional Strategies

- Introduce children to three-dimensional shapes through everyday experiences (e.g., cans (cylinders), balls (spheres), and playground cones).
- Provide a variety of three-dimensional shapes in the classroom and many opportunities to play with them.
- Place three-dimensional shapes in a bag, pass the bag around to children as they guess what shape it is.

Environmental Considerations

Fill the classroom with a wide variety of manipulatives and pictures of objects (e.g., two- and three-dimensional shapes) related to new mathematics vocabulary. Add and alternate materials as appropriate.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a).

VII. Social Studies and The Arts

A(d).1.

Further Clarifications

Positional words, measurement words (e.g., bigger, less, or more), and names of shapes are types of mathematical language.

A. MATHEMATICAL THINKING

A(e). SPATIAL RELATIONS

1. Shows understanding of and uses several positional words (e.g., above, below, next to, beside, on top of, inside, outside)

Understanding positional words is very important for a four-year-old's ability to communicate and understand others in the classroom. Teachers can use the classroom and playground to infuse these words into daily conversations with children.

Benchmark a: Child shows understanding of positional words (receptive knowledge).

Prekindergarten children show their understanding of positional words by:

- following directions requested by the teacher
- following directions in the songs, games, and chants by mimicking the actions.

Instructional Strategies

- Use position words when giving children directions (e.g., "Stand beside me," or "Put the cup under the cabinet.").
- Give the children a task using positional words (e.g., "Go below the table," or, "sit beside your friend.").
- Teach songs, games (e.g., *Simon Says*) and chants that include positional words (e.g., "Put your finger in the air, on your head, behind your back, and then on top of your head.").

Environmental Considerations

Provide children with easy access to many types of manipulatives (e.g., small toy animals, pegs, blocks) that promote the mathematical skills of sorting and grouping, recognizing patterns and relationships, understanding spatial relations, and comparing and measuring objects.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c),
C.2.(a).

VII. Social Studies and The Arts

A(d).1.

Further Clarifications

Expressive language is important in showing understanding of mathematical thinking.

A. MATHEMATICAL THINKING

A(e). SPATIAL RELATIONS

- 1. Shows understanding of and uses several positional words (e.g., above, below, next to, beside, on top of, inside, outside) (continued)**

Benchmark b: Child uses positional terms orally (expressive knowledge) (e.g., above, below, next to, beside, on top of, inside and outside), with teacher support and multiple experiences over time.

Prekindergarten children show their understanding of how to verbally use positional words by:

- identifying the location of their friend when asked by the teacher
- using positional words to ask for something (e.g., "May I get the blocks that are on top of the shelf?")
- accurately telling friends where to place objects using positional words (e.g., "Put the blocks beside the linking cubes.").

Instructional Strategies

- Ask child where a specific object is and prompt child to use positional words in their answer.
- Create obstacle courses inside and outside that involve moving in different directions and locations and have the children use words to describe their position.
- Encourage children to use positional words when giving directions to each other (e.g., "Walk behind me.").

Environmental Considerations

Provide a parent bulletin board with suggestions for mathematics activities and create take-home math activities.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VI. Mathematical and Scientific Thinking

B(a).1., B(a).3.

VII. Social Studies and The Arts

A(d).1.

Further Clarifications

Knowing the shape of one's environment and learning about the properties and relations of objects in space is the concept of spatial sense.

A. MATHEMATICAL THINKING

A(e). SPATIAL RELATIONS

3. Understands and can tell the difference between orientation terms such as horizontal, diagonal, and vertical

Exposure to rich words is important in developing a four-year-old's vocabulary. These terms help children to be more descriptive, and they are important in developing spatial knowledge.

Prekindergarten children show their understanding of how to tell the difference between orientation terms by:

- making their arms or bodies represent orientation terms (e.g., horizontal, diagonal, vertical)
- using materials (e.g., yarn, popsicle sticks, paper and crayons) to replicate orientation terms (e.g., horizontal, diagonal, vertical).

Instructional Strategies

- Ask a child if they want their easel paper hung horizontally, diagonally, or vertically, while demonstrating each with the paper to be hung.
- When outdoors, have the group of children lie down horizontally, stand up vertically, and lean against something to make their body diagonal.
- Point out signs that have diagonal lines (e.g., a railroad crossing sign).
- Discuss the kinds of lines being used when introducing how to write a letter (e.g., horizontal, diagonal, or vertical lines).

Environmental Considerations

Provide opportunities in the daily schedule for the development of spatial sense through gross motor activities (e.g., building with large blocks outdoors, playing *Simon Says* or *Mother May I?*).

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

III. Social and Emotional Development

D.3.

IV. Language and Communication

A.2.

VII. Social Studies and The Arts

A(c).1.

VIII. Motor Development

A.1., A.2.

Further Clarifications

Gross motor activities help children develop spatial sense.

A. MATHEMATICAL THINKING

A(e). SPATIAL RELATIONS

4. Uses directions to move through space and find places in space (e.g., obstacle courses, *Simon Says*, *Mother May I?*, hop scotch, giving simple directions)

Four-year-old children can readily learn to follow basic directions when directions are a part of something they are interested in (e.g., a game or other exciting activity).

Prekindergarten children show their understanding of how to use directions to move through space and find places in space by:

- knowing where to stand if asked to stand behind a classmate in line
- going over to sit beside (or in front of) a classmate when asked to do so
- telling a new classmate how to get to the playground using directional words.

Instructional Strategies

- Create obstacle courses inside and outside that involve moving in different locations and directions.
- Play *Mother May I?* encouraging children to ask to go certain places.
- Plan activities that require children to find places in space (e.g., the block area or sink).

Environmental Considerations

Incorporate games and activities into daily routines that require children to follow directions in order to find different places in space.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VII. Social Studies and The Arts

A(d).1.

VIII. Motor Development

B.1., B.2.

Further Clarifications

A bathroom scale is a standard reference for weight that produces a written measurement.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

1. Compares continuous quantities using length, weight, and height (continued)

Benchmark b: Child measures or compares the weight of one or more objects using non-standard reference (e.g., beans), with teacher support and multiple experiences over time.

Prekindergarten children show their understanding of how to measure or compare the weight of one or more objects with a non-standard reference by:

- exclaiming that the book the child is carrying is much heavier than the ball a friend is carrying
- talking about how light the bag of cotton balls is compared to a bag of marbles.

Instructional Strategies

- Make a simple scale using a suspended hanger with a string and a bucket on each side. Show children how to measure weight with non-standard items.
- Provide a balance scale and items for children to weigh.

Environmental Considerations

Give children access to a simple bathroom scale and a variety of items to weigh.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

VII. Social Studies and The Arts

A(d).1.

VIII. Motor Development

B.1., B.2.

Further Clarifications

A standard reference for height is a tape measure.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

1. Compares continuous quantities using length, weight, and height (continued)

Benchmark c: Child measures or compares the height of one or more objects using non-standard reference (e.g., pencils), with teacher support and multiple experiences over time.

Prekindergarten children show their understanding of how to measure or compare the height of one or more objects with a non-standard reference by:

- measuring the height of the table using cubes or plastic links to determine height
- measuring the height of a friend and the height of a tricycle using paper chain links and then saying, "I am 16 links tall, and the tricycle is 11 links tall." "I am taller than the tricycle."

Instructional Strategies

- Measure children's height on a wall chart.
- Show children how to measure height with nonstandard items.
- Use open-ended questions when discussing measurement (e.g., "I wonder how many blocks we need to stack to make our tower as tall as the bookshelf.").

Environmental Considerations

Standard references for measurement (e.g., rulers, yard sticks, tape measures, scales) should be accessible for children to use.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1.(a), C.1.(b), C.1.(c),
C.2.(a), C.2.(b).

VI. Mathematical and Scientific Thinking

B(a).3.

Further Clarifications

If the teacher frequently uses measurement vocabulary, the children will begin to include these words in their daily interactions.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

1. Compares continuous quantities using length, weight, and height (continued)

Benchmark d: Child uses measurement vocabulary (e.g., length, weight, height), and comparative terminology (e.g., more, less, shorter, longer, heaviest, and lightest), with teacher support and multiple experiences over time.

Prekindergarten children show they understand how to use measurement vocabulary and comparative terminology by:

- using a length of string to measure two slides on the playground and noting which is longer and which is shorter
- using a simple scale with a basket on either side, a cotton ball is added to one side and a ball of play dough is added to the other side and noting that the play dough is heavier
- measuring the height of a friend and the height of a bookshelf using paper chain links and noting which is taller and which is shorter.

Instructional Strategies

- Using yarn, measure common objects in the classroom with a small group of children (e.g., table, water table, crib, sink). Label each piece of yarn with a picture of what is measured. Then put the objects in order and discuss differences using measurement terminology.

- Using a simple scale with a basket on either side, put different classroom objects in either side. Use vocabulary to describe which is heavier and lighter. After practice, ask children to predict which object will be heavier.

Environmental Considerations

Look for opportunities to use and display measurement words in the early learning environment.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

II. Approaches to Learning

A.1., D.1.

III. Social and Emotional Development

A.2., B.2., C.1., D.1.

VI. Mathematical and Scientific Thinking

B(a).3.

VIII. Motor Development

B.1., B.2.

Further Clarifications

Organizing materials by sorting is an important first step in data collection.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

2. Represents and analyzes data

As four-year-olds become more skilled at sorting based on attributes (e.g., type, color, shape), they are ready for experiences that help them learn ways that we categorize information (e.g., charts and graphs). By choosing things to chart that are meaningful to children, we stimulate their interest in analyzing the differences, with the teacher's support.

Benchmark a: Child assists with collecting and sorting materials to be graphed.

Prekindergarten children show their understanding of collecting and sorting materials by:

- collecting and sorting leaves by color (and then by color and shape as they become more skilled)
- collecting and sorting toy cars by size
- collecting blocks and sorting them by shape (and then by shape and color as they become more skilled).

Instructional Strategies

- Take a nature walk to note and collect nature items during different seasons that can be sorted by type (e.g., leaves, pine needles, pine cones, acorns).
- Plan an activity where each child brings in a favorite toy. Then, talk about how the toys can be grouped together (e.g., stuffed animals, cars, dolls, books, toys that make noise).

Environmental Considerations

Provide children with containers for sorting materials to be analyzed.

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

II. Approaches to Learning

A.1., D.1.

III. Social and Emotional Development

A.2., B.2., C.1., D.1.,
E.1.

VI. Mathematical and Scientific Thinking

B(a).3.

VIII. Motor Development

B.1., B.2.

Further Clarifications

Creating charts and graphs helps children attach meaning to number.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

2. Represents and analyzes data (continued)

Benchmark b: Child works, with teacher and small groups, to represent mathematical relations in charts and graphs.

Prekindergarten children show they understand how to represent mathematical relations by:

- assisting in making a bar graph depicting the number of children at school each day
- creating a graph depicting number of cars collected by each child, with teacher support
- helping to create a graph of favorite types of foods by placing picture of food under the correct column.

Instructional Strategies

- Make a chart with a small group of children graphing the number of blocks of each color.
- Display information in graph form so children can compare activities and experiences (e.g., favorite things to do at the beach, or how I get to school).
- Provide experiences with different types of graphs (e.g., vertical and horizontal bar graphs).

Environmental Considerations

When graphing with small and large groups, using a piece of large chart paper allows the children to see what is being graphed.

Teacher Planning and Reflection

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VI. Mathematical and Scientific Thinking

Related Skills within the Standards

III. Social and Emotional Development

A.2., B.2., C.1., D.1., E.1.

IV. Language and Communication

E.1.

Further Clarifications

Predicting or estimating is an important skill that results from a strong foundation in mathematical skills.

A. MATHEMATICAL THINKING

A(f). MEASUREMENT

2. Represents and analyzes data (continued)

Benchmark d: Child predicts the results of a data collection, with teacher support and multiple experiences over time.

Prekindergarten children show they understand how to predict the results of a data collection by:

- predicting that they collected less gold leaves than any other color before counting each color collected
- predicting that they have more red cars before counting each color collected
- saying to a friend, "I bet red is the most," before the class makes a chart of favorite colors.

Instructional Strategies

- Ask children what shape of blocks they think they have the least of before analyzing a collection of blocks.
- Have children predict which items they think will sink or float in water, then chart actual results in two columns, sink and float.
- Encourage children to predict which type of shoe is worn by more children in the classroom before creating a graph of shoes worn in the classroom.

Environmental Considerations

Provide a variety of books with math-related concepts (e.g., counting, predicting, patterning, measurement, geometry).

Teacher Planning and Reflection

[illegible]

VI. Mathematical and Scientific Thinking

Related Skills within the Standards

IV. Language and Communication

C.1., C.2.

VI. Mathematical and Scientific Thinking

A(a).2.(a), A(a).2.(b),
A(a).2.(c), A(a).3.,
A(b).1.(a), A(b).1.(b),
A(c).4., A(d).4., A(d).7.,
A(f).1.(a), A(f).1.(b),
A(f).1.(c).

Further Clarifications

Children this age may need help initially in verbalizing the differences that they see between objects and events.

B. SCIENTIFIC THINKING

B(a). INQUIRY

3. Makes comparisons among objects

Four-year-old children readily make comparisons about observed objects when encouraged and guided. They become enthusiastic about different kinds of paw prints in the mud or differences in footprints in the sand. They enjoy finding things that are the same or different. Their **comparative statements** represent how very young children begin to draw conclusions from observations.

Prekindergarten children make comparisons by:

- comparing the properties of objects that float in water with objects that sink
- describing and comparing a variety of fabrics at the collage table (e.g., satin, corduroy, felt, and taffeta)
- noting the difference in speed when a truck is pushed over tiles or rugs
- pouring sand or water through tubes of varying diameters and comparing the time that it takes for the same amount to flow through each tube (e.g., “a really long time,” “not so long”).

Instructional Strategies

- Use charts and displays to document children’s comparisons.
- Introduce books that include opportunities for making comparisons.
- Encourage comparisons by asking questions (e.g., “What objects will light shine through?” “What floats?”).

Environmental Considerations

Provide a variety of books about nature and science.

Teacher Planning and Reflection

Mathematical and Scientific Thinking Glossary

analyze – to study and think of solutions for mathematical problems (e.g., The teacher asks a child to tell how many bears there are all together. The child counts the three green bears and the two red bears and discovers there are five bears.).

angle – two lines meeting together at one point.

cardinal number – a number used to express quantity but not order.

circle – a round two-dimensional figure that resembles a ring.

comparative statements – statements children make comparing two items as the same or different that eventually help them draw conclusions (e.g., A child holds two sticks up and says, “This stick is long and this stick is short.” Eventually the child would say, “This stick is longer than this stick.”).

cube – a three-dimensional solid figure with six equal square faces and right angles; three-dimensional square.

decade – a group, set, or series of ten.

equivalent – equal (e.g., a square has four equivalent sides).

exploration – the act of studying something new to better understand it.

inquiry – processes of science (e.g., observe, sort, classify, describe, and communicate).

magnetic attraction – the force that makes opposite poles of two magnets pull toward each other.

natural phenomena – any event that is observable and not made or caused by humans (e.g., the wind knocks over a tree during a storm).

numeral – a symbol or set of symbols used to represent a number (e.g., the number *five* is represented by the symbol or numeral 5).

one-to-one correspondence – pairing or matching objects in a one-to-one relationship (e.g., giving one apple to each child at snack time).

Mathematical and Scientific Thinking Glossary (continued)

ordinal – showing the relative position in a sequence of numbers (e.g., first, second, third).

orientations – the positions of a shape or figure (e.g., on top of, below, behind, in front of).

oval – a two-dimensional egg-shaped figure; an elongated ring.

pattern – a repeating series of units.

pattern unit – the repeating part of a pattern (e.g., red, blue would be the pattern unit in the pattern red, blue, red, blue, red, blue).

prediction – an idea (opinion) stated about what may happen in the future (e.g., a child may predict that the caterpillar will turn into a butterfly).

proportional – two quantities having the same or similar measurements.

rectangle – a two-dimensional figure with two sets of parallel lines and four right angles.

relative position from different perspectives – concept of the same object being in different positions based on the observer's, point of view (e.g., an upside down triangle and a right side up triangle; they are the same object but in different positions).

retraction – the force that makes two like poles of magnets push away from each another.

seriation – arrangement in rows or a series by an attribute.

set – a group of objects.

spatial sense – the ability to build and manipulate mental representations of two- and three-dimensional objects and ideas.

sphere – a three-dimensional figure with a round body (e.g., a ball, marble, or globe).

Mathematical and Scientific Thinking Glossary (continued)

square – a two-dimensional figure with four equal sides and four right angles.

symmetry – the property of having exactly similar parts on both sides of a central dividing line. The correspondence in the position of pairs of points of a geometric object that are equally positioned about a point, line, or plane that divides the object.

triangle – a two-dimensional figure with three sides and three angles.



VII. Social Studies and The Arts Standards

A. Social Studies

A(a). People, Past and Present

1. Identifies similarities and differences in personal and family characteristics

A(b). Human Interdependence

1. Begins to understand family needs, roles and relationships
2. Describes some people's jobs and what is required to perform them
3. Begins to be aware of technology and how it affects life

A(c). Citizenship and Government

1. Demonstrates awareness of rules
2. Shows awareness of what it means to be a leader

A(d). People and Where They Live

1. Describes the location of things in the environment
2. Shows awareness of the environment

B. The Arts

B(a). Expression and Representation

1. Uses a variety of art materials for **tactile experience** and **exploration**
2. Participates in group music experiences
3. Participates in creative movement, dance, and drama

B(b). Understanding and Appreciation

1. Responds to **artistic creations** or events

VII. Social Studies and The Arts

This domain has two components, **social studies** and **the arts**. Prekindergarten children demonstrate knowledge of **social studies**, the first component, by identifying attributes of familiar people and understanding family roles and relationships in the first area, *people, past* and *present*. They are developing new ways of examining and noticing places and the environment, including the second area, *human interdependence*. The third area is *citizenship and government*. Group rules are becoming easier to understand and follow, and four-year-old children have a beginning understanding of leadership. The fourth area is *people and where they live* in which children begin to show awareness of their environment.

The arts, the second component, includes the areas of *expression and representation* of art and *understanding and appreciation* of art. The arts provide children with opportunities to express ideas and feelings, use words, manipulate tools and media, and solve problems. Through the arts, children learn to express what they know, pursue their own interests and abilities, and appreciate the contributions of others. They begin to understand that others can be creative in different ways and show appreciation for these differences by asking questions and commenting.

Social Studies and The Arts, a part of children's cognitive development, is not limited to specified "learning times." It happens through daily activities, routines, play, and interactions. Four-year-old children are assured of many opportunities throughout the day and year to grow and develop new cognitive **skills** when family members and teachers provide stimulating environments and new experiences, and encourage children to make connections.

Strategies to Support Inclusive Learning Environments

- Simplify a complicated task by breaking it into smaller parts or reducing the number of steps.
- Use shorter but more frequent activities and routines.
- Use special or adaptive devices to increase a child's level of participation.
- Encourage hands-on and sensory experiences (e.g., touching, holding, exploring, tasting, smelling, and manipulating).
- Provide physical guidance/support in using materials when needed.
- Structure the environment so that materials are easily accessible to encourage participation.
- Adapt the environment to promote participation, engagement, and learning by using a variety of textures.
- Use specialized equipment to increase access to activities and play areas.
- Provide opportunities to experiment with new tasks, materials, and activities.
- Provide activities and materials that appeal to the interests and abilities of the entire range of children in a class.

VII. Social Studies and The Arts

Related Skills within the Standards

IV. Language and Communication

C.1., C.2.

VII. Social Studies and The Arts

A(b).1.

Further Clarifications

Children will need help in talking about differences with sensitivity and respect.

A. SOCIAL STUDIES

A(a). PEOPLE, PAST AND PRESENT

1. Identifies similarities and differences in personal and family characteristics

Four-year-old children notice similarities and differences between themselves and others. Initially they focus on physical characteristics and family habits. With teacher guidance, they begin to show awareness that people are members of different cultural groups that have different habits, traditions, and customs.

Prekindergarten children show that they can identify similarities and differences in personal and family characteristics by:

- coloring or painting an outline of themselves (body tracing) with colors of clothing, hair, and eyes that match their own
- noticing that some people speak differently than others and helping the teacher make a chart showing names of objects in two or three different languages
- noting, "Tasha's family is different because she has two brothers, and I have two sisters."
- talking about grandparents and discussing how they look different from children.

Instructional Strategies

- Incorporate cultural and ethnic activities and materials into the curriculum on a daily basis.
- Display photographs of children and their families.
- Invite families to visit the class and share foods, music, art, and other traditions.

Environmental Considerations

Include displays that are at children's eye level and many props that represent different cultures and ethnicities (e.g., dolls, posters, household items, musical instruments and tapes, art work, and cooking utensils).

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

III. Social and Emotional Development
A.1.

VII. Social Studies and The Arts
A(a).1., A(c).2.

Further Clarifications

It is important that all children feel that their families are valued and respected.

A. SOCIAL STUDIES

A(b). HUMAN INTERDEPENDENCE

1. Begins to understand family needs, roles, and relationships

Four-year-old children are very interested in learning about family roles and relationships. Through dramatic play and conversation, they actively explore the jobs family members perform to meet the family’s needs (e.g., working, preparing dinner, driving the car, taking care of children). When they realize that a classmate’s family structure differs from theirs, they want to explore those differences.

Prekindergarten children demonstrate a beginning understanding of family interdependence by:

- using words and/or actions to role-play a variety of family members in the dramatic play area
- talking about when their mommies or grandpas go to work and what they do there
- contributing to a class chart that lists each child, his or her family members, and the jobs each person does to help the rest of the family (e.g., shopping, cooking, cleaning, reading stories)
- asking questions about other families (e.g., how they celebrate holidays, who goes to work).

Instructional Strategies

- Get to know families and use key words and phrases of home languages or use parts of home routines throughout the day.

- Make family trees to show differences in family structures.
- Provide opportunities for children to talk about their families.

Environmental Considerations

Include a dramatic play area with many props and authentic materials that allow children to create and reenact family roles, relationships, routines, and rituals.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

IV. Language and Communication
C.1., C.2., D.2., E.1., E.2.

VI. Mathematical and Scientific Thinking
B(a).2.

VII. Social Studies and The Arts
A(c).2.

Further Clarifications

Avoid gender stereo types when introducing and discussing jobs.

A. SOCIAL STUDIES

A(b). HUMAN INTERDEPENDENCE

2. Describes some people's jobs and what is required to perform them

In addition to understanding family roles, four-year-old children are also interested in knowing more about the community members they encounter in their lives. With encouragement, they will expand their interest beyond firefighters and police officers to include storekeepers, postal workers, nurses, doctors, garbage collectors, road builders, and others. They can identify a variety of common jobs, give simple explanations about what workers do, and identify some tools used to perform specific jobs.

Prekindergarten children show that they can describe community jobs by:

- experimenting with a cash register, postal scale, stethoscope, or other occupational tools in dramatic play
- acting out in dramatic play how the shoe salesperson helps people buy shoes
- using the flannel board to recall a trip to an orange grove and showing how oranges are picked and packed
- looking at books to identify the various machines used for road construction.

Instructional Strategies

- Take a walk around the community and look for evidence of jobs people have done.
- Invite family members to share information and materials from their jobs.

- Introduce different jobs through books, special visitors, field trips, and job tools and props.

Environmental Considerations

Include clothing, props, and books about different community helpers in the dramatic play area.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

III. Social and Emotional Development

B.2.

VI. Mathematical and Scientific Thinking

B(a).2.

Further Clarifications

Children should use the Internet only when directly supervised by an adult.

A. SOCIAL STUDIES

A(b). HUMAN INTERDEPENDENCE

3. Begins to be aware of technology and how it affects life

Surrounded by televisions, ovens, computers, airplanes, and automated machinery, four-year-old children are aware of technology in their environment. As teachers talk with them, children can begin to appreciate that they would not know about events in other places without radios and televisions and could not talk to or visit distant relatives so easily without telephones, cars, or airplanes.

Prekindergarten children demonstrate awareness of technology by:

- using the tape player to listen to a story in the listening center
- describing the nature program about giraffes in Africa that they watched on TV
- sharing during circle time that "Abuela called from Puerto Rico to say happy birthday."
- looking at X-rays in the dramatic play area that were brought in as a prop for the dentist's office
- exploring multimedia effects on the computer.

Instructional Strategies

- Invite special guests to share how they use technology (e.g., doctors, dentists, cooks, graphic artists).
- Introduce new technologies (e.g., computer programs), to one or two children at a time to ensure safe and proper use.

- Help children understand the importance of balancing use of technology with physical activity through discussions and modeling.

Environmental Considerations

Provide technology (e.g., computers, small appliances), as well as books about technology and dramatic play props representing technology.

Teacher Planning and Reflection

VII. Social Studies and The Arts

**Related Skills
within the
Standards**

- I. Physical Health
 - B.2.
- III. Social and Emotional Development
 - B.1., B.2., D.3.

**Further
Clarifications**

Discuss rules with families, ensuring sensitivity to cultural and ethnic differences.

A. SOCIAL STUDIES

A(c). CITIZENSHIP AND GOVERNMENT

1. Demonstrates awareness of rules

Four-year-old children can be very strict about adhering to classroom rules. They like having clear rules and prefer that rules be followed. They can begin to understand, with guidance, why rules are important for *cooperative* living.

Prekindergarten children demonstrate awareness of rules by:

- helping to make the rules for free choice (e.g., only four people at the sand table) and beginning to understand why such rules are helpful
- following rules on the playground (e.g., ride your tricycle safely or your “license” will be taken away)
- accepting that they have to wait before painting because the easels are full
- explaining to a classmate why the hamster cannot be taken out of its cage.

Instructional Strategies

- Provide frequent reminders of rules.
- Keep rules simple and easy to remember.
- Involve children in establishing and reviewing rules.

Environmental Considerations

Post rules with words and pictures.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

VII. Social Studies and The Arts
A(b).1., A(b).2.

Further Clarifications

Allowing children to take the lead in planning and organizing activities adds to self-esteem and cognitive ability.

A. SOCIAL STUDIES

A(c). CITIZENSHIP AND GOVERNMENT

2. Shows awareness of what it means to be a leader

Leadership is an abstract concept. At this age, many children are able to address only the concrete leadership roles they experience. This includes the teacher’s role and, possibly, the principal’s or director’s role. Four-year-old children may also show some awareness of the leadership qualities that parents or teachers exhibit.

Prekindergarten children show awareness of leadership by:

- pretending to be the band director or conductor when playing with musical instruments
- pretending to be the teacher during dramatic play
- trying to figure out who is the “boss” of the firehouse or the police station after a visit
- talking to the principal or the director about his or her job
- showing some leadership qualities as they pretend to be parents during dramatic play.

Instructional Strategies

- Discuss classroom responsibilities and designate leaders for particular jobs.
- Use books to highlight different leadership roles.
- Introduce children to community leaders (e.g., police officers, principals, judges) through special visitors and field trips.

Environmental Considerations

Include displays for classroom leadership roles and posters and pictures depicting community leaders.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

VI. Mathematical and Scientific Thinking

A(e).1.(a), A(e).1.(b),
A(e).2., A(e).3., A(e).4.

VII. Social Studies and The Arts

A(d).2.

Further Clarifications

Look for ways to include children with special needs in spatial relation activities.

A. SOCIAL STUDIES

A(d). PEOPLE AND WHERE THEY LIVE

1. Describes the location of things in the environment

Understanding the concept of location provides the foundation for geographic thinking. Four-year-old children show they understand location by placing objects in specific positions in the surrounding environment or noticing how objects are spatially related to one another (e.g., “The yellow house is very far away.”). They can become quite enthusiastic about matching objects to their usual locations (e.g., a toaster in the kitchen, a bed in the bedroom, a tree in the park).

Prekindergarten children describe the location of things by:

- placing pictures of common household items in the proper rooms of a prepared house plan and explaining why they go there
- using a teacher's clue (e.g., "The markers are below the pencils.") to locate the markers on the shelf
- talking about the stores they visit and what is in them
- following a simple treasure hunt map within the classroom.

Instructional Strategies

- Take walking trips around the neighborhood and note different geographic features and landmarks.
- Make maps of classrooms, playgrounds, and neighborhood stores and features.

- Use blocks and dramatic play items to create representations of neighborhood features.

Environmental Considerations

Include a variety of materials to use in creating representations (e.g., art materials, blocks, and dramatic play items).

Teacher Planning and Reflection

[illegible]

VII. Social Studies and The Arts

Related Skills within the Standards

II. Approaches to Learning

D.1.

VII. Social Studies and The Arts

A(d).1.

Further Clarifications

Awareness of the environment includes helping children understand the special needs of and appreciate the contributions of children with special needs.

A. SOCIAL STUDIES

A(d). PEOPLE AND WHERE THEY LIVE

2. Shows awareness of the environment

Interest in the environment is very concrete for four-year-old children. Initially they notice major changes in their environment. With teacher support, they can begin to understand how people affect the environment by relating it to the classroom and to their own yards and neighborhoods.

Prekindergarten children show awareness of the environment by:

- noticing new displays or materials in the classroom
- sharing information about the progress of the road repairs they saw on their way to school
- discussing reasons for not picking flowers on the walk they recently took
- explaining to a classmate why a passageway must be kept uncluttered for a classmate who has visual or physical impairments
- discussing how the classroom would look if everyone dropped tissues on the floor.

Instructional Strategies

- Introduce new items and discuss how they affect the environment.
- Make taking care of the indoor and outdoor environment a part of the daily routine.
- Use recycled materials and discuss why.

Environmental Considerations

Provide an orderly, clean, and uncluttered environment and include recycle bins and recycled materials to model respect for the environment.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

II. Approaches to Learning

C.1.

III. Social and Emotional Development

A.1., A.2.

VI. Mathematical and Scientific Thinking

A(c).3., A(c).4.

VIII. Motor Development

B.1., B.2., B.3.

Further Clarifications

Children with special needs are children first and can enjoy all forms of the arts.

B. THE ARTS

B(a). EXPRESSION AND REPRESENTATION

1. Uses a variety of art materials for *tactile experience* and *exploration*

Four-year-old children are very active and can sustain attention to art activities for only limited periods of time.

They engage in the artistic process with great enthusiasm but show little desire to produce a product. This enables them to explore various media with freedom.

Prekindergarten children demonstrate use of a variety of art materials by:

- trying a variety of materials and ways of using the materials (e.g., using a big brush to paint broad strokes, single lines going this way and that, or combining colors)
- experimenting with play dough by rolling and patting it, cutting it with cookie cutters, sticking things into it, making it into an object
- using new implements (e.g., cotton swabs or straws) to paint a picture
- constructing a symmetrical design with pattern blocks.

Instructional Strategies

- Introduce new art materials and supplies on a regular basis.
- Encourage children's imaginations by asking open-ended questions about their use of art materials (e.g., "What happens when you mix two colors?" "What else might you use to paint with?").
- Provide many examples of diverse art exhibits and materials.

Environmental Considerations

Include a variety of art materials and supplies (e.g., nature items, commercial products, household objects), as well as adequate space for displaying pictures, clay creations, and block structures.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

II. Approaches to Learning
C.1.

III. Social and Emotional Development
A.1., A.2.

VI. Mathematical and Scientific Thinking
A(c).3.

Further Clarifications

Temperament and individual differences affect children's levels of participation and response to musical activities.

B. THE ARTS

B(a). EXPRESSION AND REPRESENTATION

2. Participates in group music experiences

Four-year-old children quickly become involved in singing, finger plays, chants, musical instruments, and moving to music. They are usually quite unselfconscious when participating in music activities and can gain a sense of mastery if there are no expected outcomes or performances.

Prekindergarten children show participation in group music experiences by:

- participating in finger plays and musical games
- listening to music tapes during free choice time
- starting and stopping the playing of their instruments when the piano or tape starts or stops
- knowing the words of often-repeated songs, humming or singing them during other parts of the day
- using rhythm sticks or clapping hands in time to a beat.

Instructional Strategies

- Use music that requires group singing, movement, and cooperation to help children feel part of the group.
- Introduce many types of music (e.g., jazz, folk, classical, reggae) through tapes, CDs, instruments, and special visitors.
- Use music as a part of transition routines.

Environmental Considerations

Include a variety of musical instruments, tapes, CDs, and music props.

Teacher Planning and Reflection

VII. Social Studies and The Arts

Related Skills within the Standards

II. Approaches to Learning

C.1.

III. Social and Emotional Development

A.1., A.2.

V. Emergent Literacy

A.4.

Further Clarifications

Children with special needs can enjoy movement, dance, and drama. Material adaptations or extra time for activities may help them participate fully.

B. THE ARTS

B(a). EXPRESSION AND REPRESENTATION

3. Participates in creative movement, dance, and drama

Four-year-old children can participate with abandon in dancing and creative movement. Their imaginations are overflowing with images and ideas that they can express with movement. They **pantomime** movements of familiar things, act out stories, and reenact events from their own lives in dramatic play.

Prekindergarten children participate in creative movement, dance, and drama by:

- using scarves, ribbons, or other materials to create special movements and dances
- dramatizing a story read aloud during circle time
- using movement to interpret or imitate feelings, animals, and natural events
- dancing to different kinds of music (e.g., jazz, rock, ethnic, classical)
- galloping, twirling, and performing almost any imaginative movement in response to music.

Instructional Strategies

- Ask children to move to different tempos and styles of music.
- Read familiar books and act out scenes.
- Use children's dictated stories to create a dance or drama.

Environmental Considerations

Include sufficient space indoors and outdoors for dance, drama, and movement activities, as well as a variety of music with different tempos and styles, along with creative props (e.g., scarves, costumes).

Teacher Planning and Reflection

[illegible]

VII. Social Studies and The Arts

Related Skills within the Standards

- I. Physical Health
A.3.
- II. Approaches to Learning
D.1.
- IV. Language and Communication
A.1.
- V. Emergent Literacy
A.4.

Further Clarifications

Include opportunities for sharing artwork from a variety of cultures and ethnicities.

B. THE ARTS

B(b). UNDERSTANDING AND APPRECIATION

1. Responds to *artistic creations* or events

Many children express their interest in the arts as observers rather than as producers. With teacher guidance, children can begin to comment on each other’s work, asking questions about methods used, showing interest in the feelings begin expressed, or noticing details. With teacher support, four-year-old children can attend to and appreciate children’s concerts, dance performances, and theater productions.

Prekindergarten children show response to *artistic creations* or events by:

- listening to music tapes during free choice time, indicating appreciation through body language and facial expressions
- watching classmates as they engage in creative movement activities
- imitating the voice a classmate used to play Papa Bear
- exclaiming about the skill a classmate displays in painting, modeling with play dough, or building with blocks.

Instructional Strategies

- Use discussions and art expression as follow-up activities to field trips to museums, concerts, and performances.
- Design art spaces to encourage dialogue between children as they work (e.g., side-by-side easels, joint listening stations).

- Showcase children’s art work along with the work of well-known and community artists.

Environmental Considerations

Provide display space to introduce and examine *artistic creations* and events.

Teacher Planning and Reflection

Social Studies and The Arts Glossary

artistic creations – the product of a child’s freedom to express him/herself through his/her art work (e.g., a child chooses to make a rainbow while painting at the easel).

cooperative – a child deliberately works or plays with others for a common purpose or goal.

creative movement – moving in a new and/or unusual way that isn’t directed by the teacher (e.g., a child dances to music played by the teacher).

exploration – the act of studying something new to better understand it.

geographic thinking – understanding of location and/or position of objects (e.g., below, behind, above, next to, to the right, to the left).

pantomime – using gestures and facial expressions to tell a story without speaking (e.g., pouting, smiling, or pretending to fly).

tactile experience – exposing children to texture by providing them with opportunities to touch a variety of materials or objects (e.g., sand paper, finger paint paper, cotton, and rocks).



VIII. Motor Development Standards

A. Gross Motor Development

1. Moves with balance and control
2. Coordinates movements to perform simple tasks

B. Fine Motor Development

1. Uses strength and control to perform simple tasks
2. Uses **eye-hand coordination** to perform tasks
3. Shows beginning control of writing, drawing, and art tools

VIII. Motor Development

Four-year-old children love to move, and their increased motor skill coordination and development opens up new opportunities for active **exploration** of their environments and learning. Moving their bodies in new ways creates excitement and self-confidence. Greater control of their hands enables them to manipulate objects in new and different ways.

Research and experience confirm that play alone is not sufficient for the development of physical **skills**. Planned movement activities are needed, and exposure to many different types of movements should be the goal, rather than high performance in one or more particular **skills**. Physical skill development requires props and manipulatives (e.g., balls, scarves, hoops, ropes, and beanbags). Unstructured play and movement activities remain important and provide opportunities for prekindergarten children to practice their developing movement **skills**.

Motor development consists of two components. **Gross motor development**, the first component, involves balance, control, and coordination of movements controlled by the body's large muscles. Prekindergarten children run, hop, jump, swing, and climb, looking for challenges. Increases in control, coordination, and **dexterity** are also evident in their **fine motor development**, the second component. These small muscle **skills** typically lag behind gross motor **skills**. Children of this age can complete more complicated projects because of greater **eye-hand coordination** and have developed a more conventional hand grasp that enables them to begin to control writing and drawing tools.

With better control of their bodies, four-year-old children accomplish increasingly challenging and purposeful tasks, and do so with greater independence as they gain confidence. Family members and teachers play an important role in nurturing this developing confidence. Ensuring a safe environment for **exploration**, providing activities and tasks to match and challenge their development, respecting their individual differences, and expressing excitement about newly emerging abilities foster optimal motor development.

VIII. Motor Development (continued)

Strategies to Support Inclusive Learning Environments

- Assure that materials in indoor and outdoor environments are easily accessible (e.g., height, size, location).
- Use verbal, visual, and physical cues to help children know what to do.
- Assign a capable buddy to model the actions and help with materials and equipment.
- Provide physical guidance/support for children having difficulty with motor tasks.
- Modify materials so children can participate as independently as possible.
- Integrate motor actions into other preferred activities (e.g., singing, reading books, or dramatic play).
- Use modified writing materials and surfaces to increase participation and success.
- Encourage and welcome support personnel (e.g., physical and occupational therapists and mobility specialists) to work in the classroom modeling instructional strategies and problem-solving with the child's teachers.

VIII. Motor Development

Related Skills within the Standards

I. Physical Health
A.1., B.1., B.3.

Further Clarifications

Sequence of Locomotor Skill Development

- Walking
- Marching
- Galloping
- Hopping
- Running
- Moving around obstacles
- Skipping

A. GROSS MOTOR DEVELOPMENT

1. Moves with balance and control

Four-year-old children are actively refining their gross motor control. They enjoy practicing **skills** and challenge themselves to jump farther or run faster than their friends. They can run more smoothly than at younger ages, hop on each foot several times, and climb up and down stairs using a more adult-like form.

Prekindergarten children show that they can move with balance and control by:

- maintaining balance on a balance beam that is close to the ground
- moving around the classroom on narrow paths between furniture without bumping into things
- developing mastery over running **skills** (e.g., quick stops, full circle turns, speeding up and slowing down)
- going up and down stairs alternating feet, without holding onto the rail or the wall.

Instructional Strategies

- Provide daily structured physical activities.
- Provide daily unstructured times for physical activity.
- Encourage children who are shy or less active to become involved in physical activities.

Environmental Considerations

Include a variety of indoor and outdoor physical activity areas, props, materials, and equipment.

Teacher Planning and Reflection

[illegible]

VIII. Motor Development

Related Skills within the Standards

I. Physical Health

A.1., B.1., B.3., B.5.

III. Social and Emotional Development

B.1.

Further Clarifications

Keys to Modifications:

- Environmental alterations to promote participation
- Material modification
- Simplification of the activity

A. GROSS MOTOR DEVELOPMENT

2. Coordinates movements to perform simple tasks

Four-year-old children are able to combine movements to accomplish increasingly challenging physical tasks. Stability (e.g., turning, twisting, balancing, dodging) and manipulative (e.g., throwing, catching, kicking, striking) motor **skills** are developed after locomotor skills. Prekindergarten children can now kick balls, aim and throw bean bags, climb and swing on jungle gyms, and ride tricycles with increasing control. They love to practice these new skills in games, especially with adult companions.

Prekindergarten children show that they can perform simple tasks by:

- turning, rolling, and swaying as they move through an obstacle course
- throwing a ball in the right direction, aiming at a target with reasonable accuracy
- catching a ball by moving their arms or bodies to adjust for the direction the ball is traveling
- kicking a large ball with a two-step start
- riding a tricycle on a path around the playground
- using the slide, seesaw, or swings
- hitting a stationary target with an overhand throw.

Instructional Strategies

- Provide planned movement activities that use early skills to build upon more complex movement tasks to support motor skill competence.

- Plan and provide physical activities that do not eliminate children and are frequently modified to facilitate maximum participation.
- Create movement challenges specific to the skill development needs of individual children.

Environmental Considerations

Include a variety of physical activity props, materials, and equipment, as well as modifications to ensure the maximum participation of all children.

Teacher Planning and Reflection

[illegible]

VIII. Motor Development

Related Skills within the Standards

I. Physical Health

A.1., B.5.

III. Social and Emotional Development

B.1.

V. Emergent Literacy

B.1., B.4.

VI. Mathematical and Scientific Thinking

A(d).3.(a), A(d).3.(b),
A(d).3.(c)

VII. Social Studies and The Arts

B(a).1.

Further Clarifications

Dramatic play can also provide many opportunities for fine motor development.

B. FINE MOTOR DEVELOPMENT

1. Uses strength and control to perform simple tasks

Four-year-old children continue to develop fine motor skills through their participation in classroom activities.

By using many different classroom materials (e.g., art materials and tools, manipulatives, and the workbench), they improve their hand and finger strength and control.

Prekindergarten children demonstrate fine motor strength and control by:

- using clothespins to hang paintings or pretend laundry
- putting interlocking blocks or pop-it beads together and pulling them apart
- pushing a cookie cutter into dough
- pulling the caps off markers and putting them back on firmly
- using the paper punch to make holes
- twisting the cap off a jar of paste
- cutting off tape with scissors.

Instructional Strategies

- Display and store materials so that children have easy access and choice and can put things away independently.
- Provide children with opportunities to use a variety of tools (e.g., writing tools: pencils, markers, crayons; kitchen tools: tongs, egg beaters; woodworking tools: wrench, screwdriver, hammer).
- Expect and include time in the schedule for children to help with simple clean-up tasks on a daily basis.

Environmental Considerations

Include a variety of puzzles, pegs, blocks, writing and drawing tools, art materials, household items and tools, and materials and equipment that promote self-help.

Teacher Planning and Reflection

[illegible]

VIII. Motor Development

Related Skills within the Standards

I. Physical Health

A.2., B.5.

III. Social and Emotional Development

B.1.

V. Emergent Literacy

B.1., B.4.

VI. Mathematical and Scientific Thinking

A(a).1.(a), A(a).6.(a),
A(b).2.(a), A(b).2.(b),
A(b).3., A(d).3.(a),
A(d).3.(b), A(d).3.(c).

VII. Social Studies and The Arts

B(a).1.

Further Clarifications

Four-year-old children are interested in learning to cut with scissors; be sure to discuss safety issues.

B. FINE MOTOR DEVELOPMENT

2. Uses *eye-hand coordination* to perform tasks

Four-year-old children demonstrate their ***eye-hand coordination*** skills as they start to construct with unit blocks and interlocking blocks, put together puzzles, and experiment at the sand and water tables. Their artwork tends to become more complicated as they use newly mastered skills to create products.

Prekindergarten children demonstrate use of *eye-hand coordination* by:

- zipping jackets
- cutting on a line or around a large picture with scissors
- stringing beads or pasta with holes onto a length of yarn
- dressing dolls using snaps and buttons
- constructing or copying buildings and roads with the table blocks
- using a hammer to try to pound nails into soft wood.

Instructional Strategies

- Encourage development of zipping, snapping, and buttoning skills by providing a variety of clothing for dolls in the dramatic play area.
- Add different materials to the art area on a regular basis (e.g., cotton swabs, cotton balls, paint rollers) to create renewed interest in ***eye-hand coordination*** activities.
- Enlist children's help in organizing office or center materials (e.g., putting paper clips in a small container, picking up pebbles on a community walk to add to the science area).

Environmental Considerations

Provide many different sizes of fine motor items and containers for storage.

Teacher Planning and Reflection

[illegible]

VII. Social Studies and The Arts

B(a).1.

Further Clarifications

Teacher dictation is important because four-year-old children have a strong desire to tell all about something but little desire to create a record of it once it has been told. Most of their scribbles and writings have no specific message.

B. FINE MOTOR DEVELOPMENT

3. Shows beginning control of writing, drawing, and art tools

Four-year-old children are interested in the process of drawing and writing. However, the finished product is not as important to them as the process of creation. At this age, children begin to use a more conventional grasp, and even practice making some letters for their names or for signs.

Prekindergarten children show beginning control of writing, drawing, and art tools by:

- drawing with markers and then deciding that the picture is a dog, a monster, or “me”
- using chalk on the blackboard, pretending to write letters or numbers
- holding a pencil in a pincer grasp
- using glue sticks to paste a variety of items on their collages
- trying a variety of ways to make brush strokes at the easel.

Instructional Strategies

- Encourage use of writing, drawing, and art tools by planning special activities and changing materials on a regular basis.
- Display children's writing, drawing, and art and direct parents' attention to the displays.
- Create writing folders for each child with open access to them during center and free play time.

Environmental Considerations

Include a variety of writing, drawing, and art materials and tools, as well as designated spaces for displaying children's work.

Teacher Planning and Reflection

Motor Development Glossary

dexterity – skill and grace in physical movement, especially in the use of the hands.

eye-hand coordination – the ability to coordinate movements between the eye and hand to complete a task (e.g., hitting a softball, or catching a bean bag).

fine motor development – development of the control, coordination and dexterity of the body's small muscles (e.g., stringing beads, using scissors to cut paper, or writing with a marker).

gross motor development – development of the balance, control, and coordination of the body's large muscles (e.g., running, climbing, jumping, or throwing).

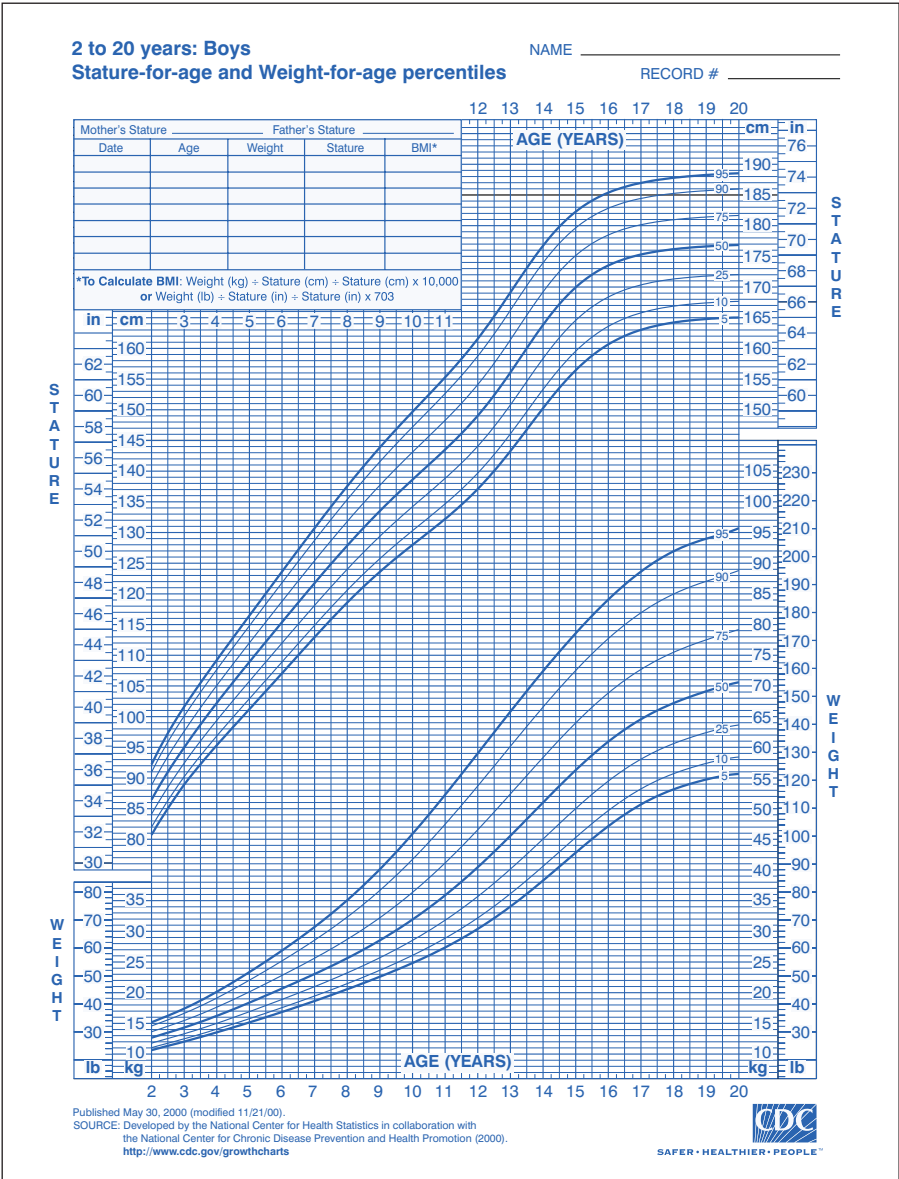
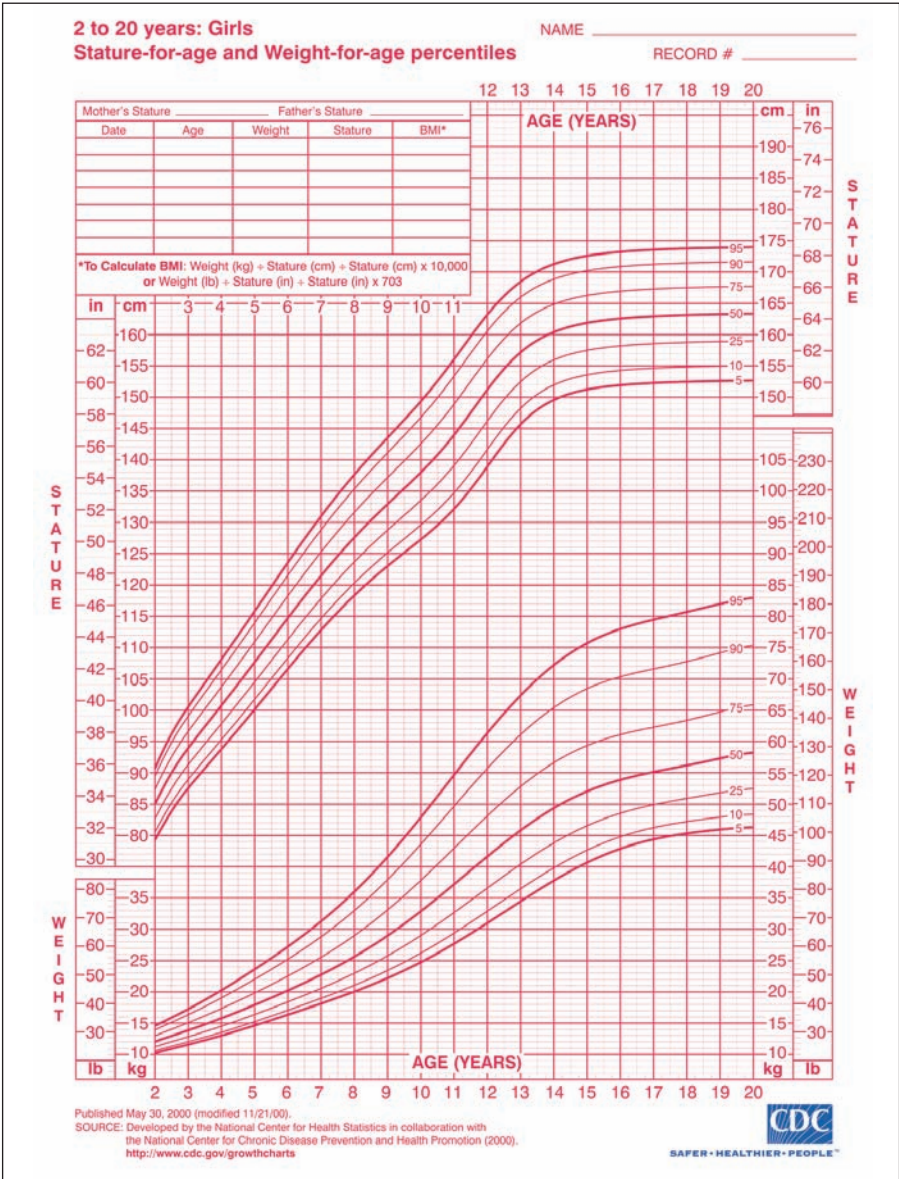
Contents

- A. Centers for Disease Control and Prevention (CDC) Clinical Growth Charts**
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- D. U.S. Department of Agriculture (USDA) Food Pyramid**
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- F. A Collaborative Agency Directory: Frequently Asked Questions for AWI, DCF, and DOE**

Centers for Disease Control and Prevention (CDC) Clinical Growth Charts

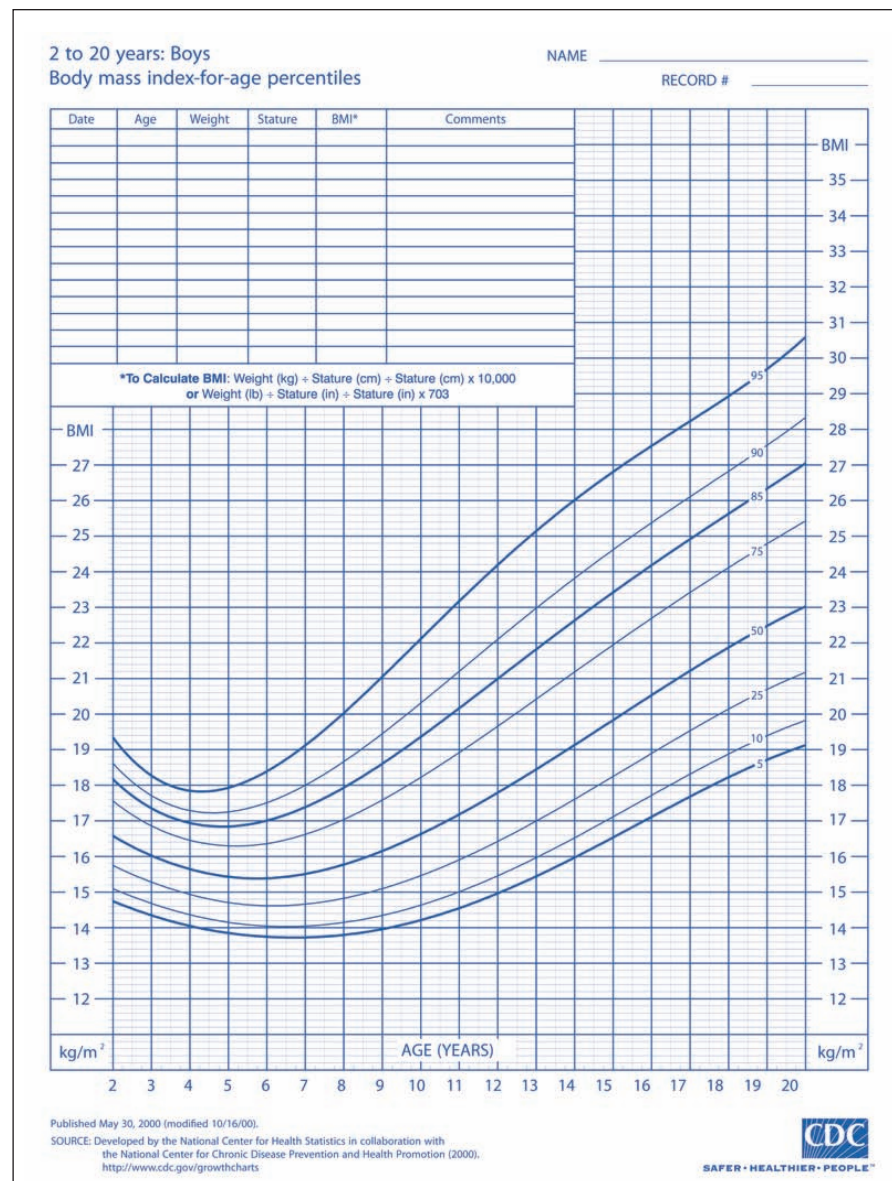
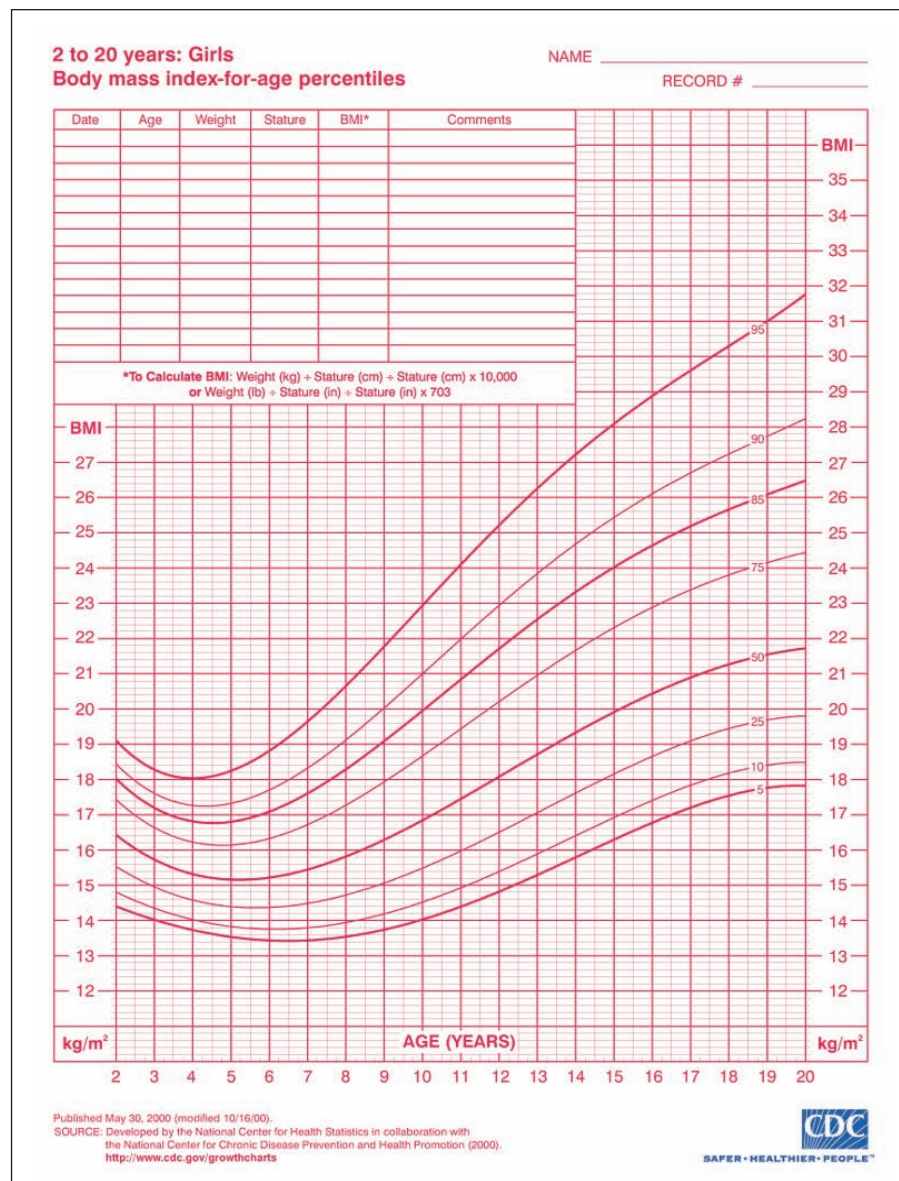
Appendix A

Charts are also available in Spanish and French at http://www.cdc.gov/nchs/about/major/nhanes/growthcharts/clinical_charts.htm.



Centers for Disease Control and Prevention (CDC) Body Mass Index Chart Appendix B

Charts are also available in Spanish and French at http://www.cdc.gov/nchs/about/major/nhanes/growthcharts/clinical_charts.htm.



American Academy of Pediatrics (AAP) Preventive Health Care Recommendations

Appendix C



Recommendations for Preventive Pediatric Health Care

Bright Futures/American Academy of Pediatrics



Each child and family is unique; therefore, these **Recommendations for Preventive Pediatric Health Care** are designed for the care of children who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in satisfactory fashion. **Additional visits may become necessary** if circumstances suggest variations from normal.

Developmental, psychosocial, and chronic disease issues for children and adolescents may require frequent counseling and treatment visits separate from preventive care visits.

These guidelines represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of **continuity of care** in comprehensive health supervision and the need to avoid **fragmentation of care**.

The recommendations in this statement do not indicate an exclusive course of treatment or standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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4. If a child comes under care for the first time at any point on the schedule, or if any items are not accomplished at the suggested age, the schedule should be brought up to date at the earliest possible time.
5. A prenatal visit is recommended for parents who are at high risk, for first-time parents, and for those who request a conference. The prenatal visit should include anticipatory guidance, pertinent medical history, and a discussion of benefits of breastfeeding and planned feeding. <http://www.aap.org/americanacademypediatrics.org/feeding/2007/07/01/Prenatal%20Visit> [2007]. URL: <http://aappublications.org/cgi/content/full/pediatrics;107/6/1456>.
6. Every infant should have a newborn evaluation after birth, breastfeeding encouraged, and instruction and support offered. Breastfeeding and handling should be discussed at the time of discharge. The AAP should encourage the pediatrician to include evaluation for feeding and jaundice. Breastfeeding infants should receive formal breastfeeding evaluation, encouragement, and instruction as recommended in AAP statement "Breastfeeding and the Use of Human Milk" (2005) [URL: <http://aappublications.org/cgi/content/full/pediatrics;115/2/496>]. For newborns discharged in less than 48 hours after birth, the infant should be evaluated at 48 hours of feeding. <http://www.aap.org/americanacademypediatrics.org/feeding/2005/07/01/Newborns> [2004]. URL: <http://aappublications.org/cgi/content/full/pediatrics;113/5/1434>.
7. Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 4.
8. If the patient is uncooperative, rescreen within 6 months per the AAP statement "Eye Examination in Infants, Children, and Young Adults by Pediatricians" (2007) [URL: <http://aappublications.org/cgi/content/full/pediatrics;111/4/902>].
9. All newborns should be screened per AAP statement "Year 2000 Position Statement: Principles and Guidelines for Early Childhood Developmental Screening" (2000) [URL: <http://www.aap.org/americanacademypediatrics.org/developmental/2000/07/01/Screening>].

9. *Pediatrics*; 106/4/798. Joint Committee on Infant Hearing. Year 2007 position statement: principles and guidelines for early hearing detection and intervention programs. *Pediatrics*. 2007; 106:899–921.
10. AAP Council on Children With Disabilities, AAP Section on Developmental Behavioral Pediatrics. AAP Bright Futures Steering Committee, and Medical Home Advisory Committee. Project Action Statement: Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. *Pediatrics*. 2006; 118:405–420 [URL: <http://aappublications.org/contnt/full/118/4/05>].
11. Quigley KS, Gillberg C, Gillberg U. Prevalence of autism spectrum disorders. *Pediatrics*. 2007; 119:152–153 [URL: <http://pediatrics.aappublications.org/contnt/full/119/1/152>].
12. At each visit, age-appropriate physical examination is essential, with infant totally unclothed, older child undressed and suitably draped.
13. These may be modified, depending on entry point into schedule and individual need.
14. Newborn metabolic and hemoglobinopathy screening should be done according to state law. Results should be reviewed at visits and appropriate retesting or referral done as needed.
15. Schedule of preventive services for infants, children, and adolescents published annually in the January issue of *Pediatrics*. Every visit should be an opportunity to update and complete a child's immunizations.
16. See AAP *Pediatric Nutrition Handbook*, third Edition (2003) for a discussion of universal and selective screening options. See also Recommended Child Immunization Schedule for the United States, *MMWR*, 1998; 47:PP-3–11.
17. For children at risk of lead exposure, consult the AAP statement "Lead Exposure in Children: Prevention, Detection, and Management" (2005) [URL: <http://aappublications.org/contnt/full/116/4/036>]. Additionally, screening for iron deficiency should be considered.

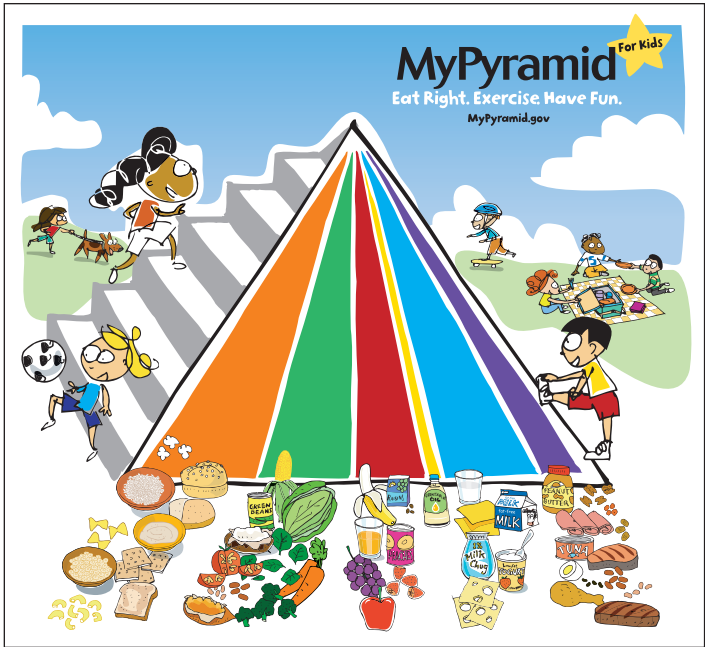
16. Perform risk assessment on all screens as appropriate based on universal screening requirements for patients with Medicaid or high prevalence areas.
17. Tuberculosis testing per recommendations of the Committee on Infectious Diseases, published in the current edition of *Textbook of the Committee on Infectious Diseases*. Testing should be done on recognition of high-risk factors.
18. Third Report of the National Cholesterol Education Program (NCEP Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Final Report) (2002) [URL: <http://circ.ahajournals.org/cgi/content/full/106/25/3443>] and *Adult Treatment Panel Recommendations on the Assessment, Prevention, and Treatment of Dyslipidemia in Children and Adolescents* (Overweight and Obesity).
19. All sexually active patients should be screened for sexually transmitted infections (STIs).
20. All sexually active girls should have screening for cervical dysplasia as part of a pelvic examination beginning within 3 years of onset of sexual activity or age 21 (whichever comes first).
21. Refer to dental home, if available, for dental and oral health risk assessment. If the primary water source is deficient in fluoride, consider oral fluoride supplementation.
22. At the visits for 3 years and 6 years of age, it should be determined whether the patient has a dental home. If the patient does not have a dental home, a referral should be made to one. If the primary water source is deficient in fluoride, consider oral fluoride supplementation.
23. Refer to the specific guidance by age as listed in Bright Futures Guidelines. (Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008).

KEY

● = to be performed ★ = risk assessment to be performed, with appropriate action to follow, if positive ← ● → = range during which a service may be provided, with the symbol indicating the preferred age

U.S. Department of Agriculture (USDA) Food Pyramid

Appendix D



Grains Make half your grains whole	Vegetables Vary your veggies	Fruits Focus on fruits	Milk Get your calcium-rich foods	Meat & Beans Go lean with protein
<p>Start smart with breakfast. Look for whole-grain cereals.</p> <p>Just because bread is brown doesn't mean it's whole-grain. Search the ingredients list to make sure the first word is "whole" (like "whole wheat").</p>	<p>Color your plate with all kinds of great-tasting veggies.</p> <p>What's green and orange and tastes good? Veggies! Go dark green with broccoli and spinach, or try orange ones like carrots and sweet potatoes.</p>	<p>Fruits are nature's treats – sweet and delicious.</p> <p>Go easy on juice and make sure it's 100%.</p>	<p>Move to the milk group to get your calcium. Calcium builds strong bones.</p> <p>Look at the carton or container to make sure your milk, yogurt, or cheese is lowfat or fat-free.</p>	<p>Eat lean or lowfat meat, chicken, turkey, and fish. Ask for it baked, broiled, or grilled – not fried.</p> <p>It's nutty, but true. Nuts, seeds, peas, and beans are all great sources of protein, too.</p>
For an 1,800-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov .				
Eat 6 oz. every day; at least half should be whole	Eat 2 1/2 cups every day	Eat 1 1/2 cups every day	Get 3 cups every day; for kids ages 2 to 8, it's 2 cups	Eat 5 oz. every day
<p>Oils Oils are not a food group, but you need some for good health. Get your oils from fish, nuts, and liquid oils such as corn oil, soybean oil, and canola oil.</p>				
<p>Find your balance between food and fun</p> <ul style="list-style-type: none"> Move more. Aim for at least 60 minutes everyday, or most days. Walk, dance, bike, rollerblade – it all counts. How great is that! 		<p>Fats and sugars – know your limits</p> <ul style="list-style-type: none"> Get your fat facts and sugar smarts from the Nutrition Facts label. Limit solid fats as well as foods that contain them. Choose food and beverages low in added sugars and other caloric sweeteners. 		

<u>VPK Education Standards-</u> Physical Health	<u>Head Start Child Outcomes Framework-</u> Physical Health and Development
Physical Health A.1. Shows characteristics of good health to facilitate learning	Health Status and Practices 8.3.1: Progresses in physical growth, strength, stamina, and flexibility.
A.2. Demonstrates visual ability to facilitate learning	
A.3. Exhibits auditory ability to facilitate learning	
A.4. Performs oral hygiene routines	Health Status and Practices 8.3.3: Shows growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting.
A.5. Shows familiarity with the role of a primary health care provider	Knowledge of Family and Communities 6.5.3: Develops growing awareness of jobs and what is required to perform them.
Knowledge of Wellness B.1. Shows that basic physical needs are met	Health Status and Practices 8.3.1: Progresses in physical growth, strength, stamina, and flexibility.
B.2. Follows basic health and safety rules	Health Status and Practices 8.3.3: Shows growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting. 8.3.4: Builds awareness and ability to follow basic health and safety rules such as fire safety, traffic and pedestrian safety, and responding appropriately to potentially harmful objects, substances, and activities.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Physical Health</u>	<u>Head Start Child Outcomes Framework- Physical Health and Development</u>
Knowledge of Wellness (continued) B.3. Participates in physical fitness activities	Health Status and Practices 8.3.2: Participates actively in games, outdoor play, and other forms of exercise that enhance physical fitness.
B.4. Makes wise food choices	Health Status and Practices 8.3.3: Shows growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting.
B.5. Performs some self-care tasks independently	Health Status and Practices 8.3.3: Shows growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting.

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Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Language and Communication</u>	<u>Head Start Child Outcomes Framework- Language Development</u>
Listening A.1. Gains meaning by listening Benchmark a: Child shows understanding by asking and answering relevant questions, adding comments relevant to the topic, and reacting appropriately to what is said.	Listening and Understanding 1.1.1: Demonstrates increasing ability to attend to and understand conversations, stories, songs, and poems.
A.2. Follows two- and three-step directions Benchmark a: Child has mastery of two-step directions and usually follows three-step directions.	Listening and Understanding 1.1.2: Shows progress in understanding and following simple and multi-step directions.
Speaking B.1. Speaks clearly enough to be understood without contextual clues Benchmark a: Child's speech is understood by both a familiar and an unfamiliar adult.	Speaking and Communicating 1.2.4: Progresses in clarity of pronunciation and towards speaking in sentences of increasing length and grammatical complexity. 1.2.5: For non-English speaking children, progresses in speaking English.
Vocabulary C.1. Shows an understanding of words and their meanings Benchmark a: Child has age-appropriate vocabulary in several categories and demonstrates a wide variety of words within each category. Benchmark b: Child has mastery of instructional language of the classroom and objects in the classroom. Benchmark c: Child understands or knows the meaning of many thousands of words, many more than he or she uses.	Listening and Understanding 1.1.3: Understands an increasingly complex and varied vocabulary. 1.1.4: For non-English speaking children, progresses in listening to and understanding English.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Language and Communication</u>	<u>Head Start Child Outcomes Framework- Language Development</u>
Vocabulary (continued) C.2. Uses an expanded vocabulary to describe many objects, actions, and events Benchmark a: Child uses a large speaking vocabulary, adding new words weekly. Benchmark b: Child uses category labels.	Speaking and Communicating 1.2.3: Uses an increasingly complex and varied spoken vocabulary.
Sentences and Structure D.1. Uses age-appropriate grammar in conversations and increasingly complex phrases and sentences Benchmark a: Child typically uses complete sentences of four or more words, usually with subject, verb, and object order. Benchmark b: Child uses regular and irregular plurals, regular past tense, personal and possessive pronouns, and subject-verb agreement.	Speaking and Communicating 1.2.4: Progresses in clarity of pronunciation and towards speaking in sentences of increasing length and grammatical complexity.
D.2. Connects phrases and sentences to build ideas Benchmark a: Child uses sentences with more than one phrase. Benchmark b: Child combines more than one idea using complex sentences. Benchmark c: Child combines sentences that give lots of detail, stick to the topic, and clearly communicate intended meaning.	Speaking and Communicating 1.2.4: Progresses in clarity of pronunciation and towards speaking in sentences of increasing length and grammatical complexity.
Conversation E.1. Uses language to express needs and feelings, share experiences, predict outcomes, and resolve problems Benchmark a: Child demonstrates varied uses of language.	Speaking and Communicating 1.2.1: Develops increasing abilities to understand and use language to communicate information, experiences, ideas, feelings, opinions, needs, questions and for other various purposes.
E.3. Uses appropriate language and style for context Benchmark a: Child demonstrates knowledge of verbal conversational rules.	Speaking and Communicating 1.2.2: Progresses in abilities to initiate and respond to appropriately in conversation and discussions with peers and adults.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Emergent Literacy</u>	<u>Head Start Child Outcomes Framework- Literacy</u>
Emergent Reading (continued) A.2. Shows age-appropriate phonological awareness Benchmark a: Child combines words to make a compound word. Benchmark b: Child combines syllables into words. Benchmark c: Child can delete a syllable from a word. Benchmark d: Child combines onset and rime to form a familiar one-syllable word with pictorial support.	Phonological Awareness 2.1.1: Shows increasing ability to discriminate and identify sounds in spoken language. 2.1.2: Shows growing awareness of beginning and ending sounds of words. 2.1.3: Progresses in recognizing matching sounds and rhymes in familiar words, games, songs, stories and poems. 2.1.4: Shows growing ability to hear and discriminate separate syllables in words. 2.1.5: Associates sounds with written words, such as awareness that different words begin with the same sound.
A.3. Shows alphabetic knowledge Benchmark a: Child recognizes almost all letters by name. Benchmark b: Child names most letters. Benchmark c: Child names some letter sounds. Benchmark d: Child recognizes some letter sounds.	Alphabet Knowledge 2.5.1: Shows progress in associating the names of letters with their shapes and sounds. 2.5.2: Increases in ability to notice the beginning letters in familiar words. 2.5.3: Identifies at least 10 letters of the alphabet, especially those in their own name. 2.5.4: Knows that letters of the alphabet are a special category of visual graphics that can be individually named.
Emergent Writing B.1. Shows motivation to engage in written expression Benchmark a: Child intentionally uses scribbles/writing to convey meaning.	Early Writing 2.4.4: Progresses from using scribbles, shapes, or pictures to represent ideas, to using letter-like symbols, to copying or writing familiar words such as their own name.
B.2. Uses letter-like shapes, symbols, and letters to convey meaning Benchmark a: Child independently uses letters of symbols to make words or parts of words. Benchmark b: Child writes own name, not necessarily with full correct spelling or well-formed letters.	Early Writing 2.4.1: Develops understanding that writing is a way of communicating for a variety of purposes. 2.4.4: Progresses from using scribbles, shapes, or pictures to represent ideas, to using letter-like symbols, to copying or writing familiar words such as their own name.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards-</u> Emergent Literacy	<u>Head Start Child Outcomes Framework-</u> Literacy
Emergent Writing (continued) B.3. Demonstrates age-appropriate ability to write letters Benchmark a: Child independently writes some letters on request.	Early Writing 2.4.4: Progresses from using scribbles, shapes, or pictures to represent ideas, to using letter-like symbols, to copying or writing familiar words such as their own name.
B.4. Shows knowledge of structure of written composition Benchmark a: When writing or dictating, child uses appropriate writing conventions	Early Writing 2.4.2: Begins to represent stories and experiences through pictures, dictation, and in play. 2.4.3: Experiments with a growing variety of writing tools and materials, such as pencils, crayons, and computers.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<p style="text-align: center;"><u>VPK Education Standards-</u> Mathematical and Scientific Thinking</p>	<p style="text-align: center;"><u>Head Start Child Outcomes Framework-</u> Mathematics</p>
<p>Mathematical Thinking: Number and Operations A.b.1 Shows understanding of how to combine sets and remove from a concrete set of objects (receptive knowledge) Benchmark a: Child indicates there are more when they combine (add) sets of objects together. Benchmark b: Child indicates there are less when they remove (subtract) objects from a set.</p>	<p>Numbers and Operations 3.1.6: Develops increased abilities to combine, separate and name “how many” concrete objects.</p>
<p>A.b.2 Shows understanding of addition and subtraction using a concrete set of objects (expressive knowledge) or story problems found in everyday classroom activities Benchmark a: Child combines sets of objects to equal a set no larger than ten. Benchmark b: Child removes objects from a set no larger than ten. Benchmark c: Child uses concrete objects to solve complex problems (e.g. fingers, blocks).</p>	<p>Numbers and Operations 3.1.1: Demonstrates increasing interest and awareness of numbers and counting as a means for solving problems and determining quality. 3.1.6: Develops increased abilities to combine, separate and name “how many” concrete objects.</p>
<p>A.b.3 Begins to develop an understanding of separating a set into a maximum of four parts, with teacher support and multiple experiences over time</p>	<p>Numbers and Operations 3.1.6: Develops increased abilities to combine, separate and name “how many” concrete objects.</p>
<p>Mathematical Thinking: Number Sense A.a.1 Demonstrates understanding of one-to-one correspondence Benchmark a: Child demonstrates one-to-one correspondence when counting. Benchmark b: Child demonstrates one-to-one correspondence to determine if two sets are equal.</p>	<p>Numbers and Operations 3.1.4: Begins to make use of one-to-one correspondence in counting objects and matching groups of objects.</p>

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards-</u> Mathematical and Scientific Thinking	<u>Head Start Child Outcomes Framework-</u> Mathematics
<p>Mathematical Thinking: Number Sense (continued) A.a.2 Shows understanding of how to count and construct sets Benchmark a: Child counts sets in the range of 10 to 15 objects. Benchmark b: Child constructs sets in the range of 10 to 15 objects.</p>	<p>Numbers and Operations 3.1.1: Demonstrates increasing interest and awareness of numbers and counting as a means for solving problems and determining quality. 3.1.6: Develops increased abilities to combine, separate and name “how many” concrete objects.</p>
<p>A.a.3 Shows understanding by participating in the comparison of quantities Benchmark a: Child compares two sets to determine if they are equal. Benchmark b: Child compares two sets to determine if one set has more. Benchmark c: Child compares two sets to determine if one set has less. Benchmark d: Child determines one set of objects is a lot more than another set of objects.</p>	<p>Numbers and Operations 3.1.5: Begins to use languages to compare numbers of objects with terms such as more, less, greater than, fewer, equal to.</p>
<p>A.a.4 Assigns and relates numerical representations among numerals (written), sets of objects, and number names (spoken) in the range of five to ten</p>	<p>Numbers and Operations 3.1.2: Begins to associate number concepts, vocabulary, quantities and written numerals in meaningful ways.</p>
<p>A.a.5 Counts and knows the sequence of number names (spoken) Benchmark a: Child counts and recognizes number names (spoken) in the range of 10 to 15. Benchmark b: Child counts up through 31 by understanding pattern of adding by one, with teacher support and multiple experiences over time.</p>	<p>Numbers and Operations 3.1.2: Begins to associate number concepts, vocabulary, quantities and written numerals in meaningful ways.</p>

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000) Appendix E (continued)

VPK Education Standards- Mathematical and Scientific Thinking	Head Start Child Outcomes Framework- Mathematics
<p>Mathematical Thinking: Number Sense (continued) A.a.6 Shows understanding of and uses appropriate terms to describe ordinal positions Benchmark a: Child demonstrates the concept of ordinal position with concrete elements (e.g., children or objects). Benchmark b: Child names ordinal positions (e.g., first, second, third, fourth, fifth).</p>	
<p>Mathematical Thinking: Geometry A.d.1 Understands various two-dimensional shapes, including circles, triangle, square, rectangle, oval, and other less common shapes (e.g., trapezoid) Benchmark a: Child categorizes (sorts) examples of two-dimensional shapes. Benchmark b: Child names two-dimensional shapes. Benchmark c: Child identifies the number of sides of two-dimensional shapes.</p>	<p>Geometry and Spatial Sense 3.2.1: Begins to recognize, describe, compare and name common shapes, their parts and attributes. 3.2.4: Shows growth in matching, sorting, putting in a series and regrouping objects according to one or two attributes such as color, shape, or size.</p>
<p>A.d.2 Shows understanding that two-dimensional shapes are equivalent (remain the same) in different orientations Benchmark a: Child slides shapes, with teacher support and multiple experiences over time. Benchmark b: Child flips shapes, with teachers support and multiple experiences over time. Benchmark c: Child rotates shapes, with teacher support and multiple experiences over time.</p>	<p>Geometry and Spatial Sense 3.2.2: Progresses in ability to put together and take apart shapes.</p>
<p>A.d.3 Understands various three-dimensional shapes, including sphere, cube, cone, and other less common shapes (e.g., cylinder, pyramid) Benchmark a: Child categorizes (sorts) examples of three-dimensional shapes. Benchmark b: Child names three-dimensional shapes.</p>	<p>Geometry and Spatial Sense 3.2.2: Progresses in ability to put together and take apart shapes. 3.2.4: Shows growth in matching, sorting, putting in a series and regrouping objects according to one or two attributes such as color, shape, or size. 3.2.1: Begins to recognize, describe, compare and name common shapes, their parts and attributes.</p>

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Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Social Studies and The Arts</u>	<u>Head Start Child Outcomes Framework- Social and Emotional Development, Creative Arts</u>
The Arts: Expression and Representation D.a.1. Uses a variety of art materials for tactile experience and exploration	Art 5.2.1: Gains ability in using different art media and materials in a variety of ways for creative expression and representation. 5.2.2: Progresses in abilities to create drawings, paintings, models, and other art creations that are more detailed, creative or realistic. 5.2.3: Develops growing abilities to plan, work independently, and demonstrate care and persistence in a variety of art projects.
D.a.2. Participates in group music experiences	Music 5.1.1: Participates with increasing interest and enjoyment in a variety of music activities, including listening, singing, finger plays, games and performances. 5.1.2: Experiments with a variety of musical instruments. 5.3.2: Shows growth in moving in time to different patterns of beat and rhythm in music.
D.a.3. Participates in creative movement, dance, and drama	Movement 5.3.1: Expresses through movement and dancing what is felt and heard in various musical tempos and styles.
The Arts: Understanding and Appreciation D.b.1. Responds to artistic creations or events	Art 5.2.4: Begins to understand and share opinions about artistic products and experiences. 5.4.1: Participates in a variety of dramatic play activities that become more extended and complex. 5.4.2: Shows growing creativity and imagination in using materials and in assuming different roles in dramatic play situations.

Crosswalk: Florida VPK Education Standards (2008) & Head Start Child Outcomes Framework (2000)

Appendix E (continued)

<u>VPK Education Standards- Motor Development</u>	<u>Head Start Child Outcomes Framework- Physical Health and Development</u>
Gross Motor Development A.1. Moves with balance and control	Gross Motor Skills 8.1.1: Shows increasing levels of proficiency, control, and balance in walking, climbing, running, jumping, hopping, skipping, marching, and galloping.
A.2. Coordinates movements to perform simple tasks	Gross Motor Skills 8.1.2: Demonstrates increasing abilities to coordinate movements in throwing, catching, kicking, bouncing balls, and using the slide and swing.
Fine Motor Development B.1. Uses strength and control to perform simple tasks	Fine Motor Skills 8.2.1: Develops growing strength, dexterity, and control needed to use tools such as scissors, paper punch, stapler, and hammer.
B.2. Uses eye-hand coordination to perform tasks	Fine Motor Skills 8.2.2: Grows in hand-eye coordination in building with blocks, putting together puzzles, reproducing shapes and patterns, stringing beads, and using scissors.
B.3. Shows beginning control of writing, drawing, and art tools	Fine Motor Skills 8.2.3: Progresses in abilities to use writing, drawing, and art tools, including pencils, markers, chalk, paint brushes, and various types of technology.

Source: Official State of Michigan Portal. (2001). Head Start Child Outcomes Framework. Retrieved from http://www.michigan.gov/documents/Head_Start_Child_Outcomes_Framework_Related_to_Standards_147122_7.pdf

A Collaborative Agency Directory: Frequently Asked Questions for AWI, DCF, and DOE

Appendix F

If You Have Questions About:	Contact:	
<ul style="list-style-type: none"> • Voluntary Prekindergarten (VPK) Program <ul style="list-style-type: none"> ○ Eligibility and enrollment ○ Payments to providers ○ Monitoring of programs • Child Care Executive Partnership • Child Care Resource & Referral Program • Early Learning Coalition System • Florida's Early Learning Advisory Council • Quality Initiative Trainings and Workgroups • School Readiness Program • Warm Line/Inclusion • What to Do If You Are a VPK Low Performing Provider <ul style="list-style-type: none"> ○ VPK Low Performing Provider (LPP) Improvement Process ○ Completing/submitting a LPP Improvement Plan ○ Completing/submitting a LPP Periodic Progress Report 	<p>Agency for Workforce Innovation (AWI) Office of Early Learning 107 E. Madison Street, MSC 140 Caldwell Building Tallahassee, FL 32399-4120</p>	<p>Telephone: (850) 921-3180 (Toll Free) 1-866-357-3239</p> <p>Web site: http://www.floridajobs.org/early-learning/index.html</p> <p>E-mail: OEL.Questions@flaawi.com</p>
<ul style="list-style-type: none"> • Child Care Licensing • Florida Child Care Professional Credential (FCCPC) • Gold Seal Accreditation • Registering for VPK Related Trainings • Submitting Documentation for the VPK Director Credential • VPK Training Requirements <ul style="list-style-type: none"> ○ VPK Related Minimum Lead Teacher Requirements ○ Equivalent Credential for VPK Instructors ○ VPK Director Credential Requirements • All other Licensing Training Requirements 	<p>Department of Children and Families (DCF) Child Care Services 1317 Winewood Blvd. Bldg 6 – 3rd Floor Tallahassee, FL 32399-0700</p>	<p>DCF Telephone: 850) 488-4900 (Fax) 850-414-7974 To submit documentation</p> <p>DCF Web site: https://myflorida.com/childcare</p>
	<p>Child Care Licensing - Local Licensing Offices</p>	<p>Child Care Licensing - Local Licensing Offices Web site: http://www.dcf.state.fl.us/child-care/dcf-specialists.html</p>

A Collaborative Agency Directory: Frequently Asked Questions for AWI, DCF, and DOE

Appendix F (continued)

If You Have Questions About:	Contact:	
	Child Care Training Information Center (CCTIC) 2807 Remington Green Circle Tallahassee, FL 32308	CCTIC E-mail: CCTIC@thechildrensforum.com CCTIC Telephone: (Toll Free) 1-888-352-2842
<ul style="list-style-type: none"> • Approved Curricula for Low Performing Providers • DOE Approved Trainings Around the State • Locating the VPK Regional Facilitator in Your Area • Professional Development and Articulation • The Florida Kindergarten Readiness Screener (FLKRS) • Voluntary Prekindergarten (VPK) Education Standards • VPK Provider Kindergarten Readiness Rate Web Site <ul style="list-style-type: none"> ○ Getting a Username and Password ○ Navigating the Web site ○ Resetting a Password ○ Verification Process ○ VPK Provider Readiness Rates • VPK Provider Readiness Rate Dispute Process 	Florida Department of Education (DOE) Office of Early Learning 325 West Gaines Street, Suite 1524 Tallahassee, FL 32399-0400	Telephone: 850) 245-0445 (Toll Free) 1-866-447-1159 Web site: www.fldoe.org/earlylearning E-mail: earlylearning@fldoe.org
<ul style="list-style-type: none"> • Becoming a VPK Provider • Enrolling a Child in VPK • Local Training Opportunities 	Your Local Early Learning Coalition	Web site: http://www.floridajobs.org/VPK/CoalitionInfo.aspx

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Florida Association of Child Care Management
VPK and other early learning providers

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References

Panel of Experts Databases

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Glossary

age-appropriate grammar – oral formation of sentences with some errors, but an understanding of some grammatical rules (e.g., “She ran across the playground.”).

age-appropriate vocabulary – age-appropriate knowledge of word meanings and continual learning of more words.

alliteracy – age-appropriate knowing how to read but not having the desire to read.

alphabetic knowledge – knowing that words are composed of letters; the understanding that letters and letter combinations represent individual phonemes in words and written language (e.g., a child says the letters in some words, a child tells a teacher or a friend the letters in his/her name).

analyze – to study and think of solutions for mathematical problems (e.g., The teacher asks a child to tell how many bears there are all together. The child counts the three green bears and the two red bears and discovers there are five bears.).

angle – two lines meeting together at one point.

articulation errors – a mispronunciation of one or more sounds within a word (e.g., a child says “ellow” for the word yellow or “ish” for the word fish).

artistic creations – the product of a child’s freedom to express him/herself through his/her art work (e.g., a child chooses to make a rainbow while painting at the easel).

auditory assessments – evaluations that are conducted to determine how well a child can hear.

blend – to combine sounds rapidly, in order to accurately represent the word.

cardinal number – a number used to express quantity but not order.

centers – areas within the classroom arranged so that children are able to participate in a variety of learning experiences relating to art, science, reading, dramatic play, blocks, etc. (e.g., an art center, a reading center, a science center, a block center, a dramatic play center, or a writing center).

circle – a round two-dimensional figure that resembles a ring.

Glossary (continued)

- comparative statements** – statements children make comparing two items as the same or different that eventually help them draw conclusions (e.g., A child holds two sticks up and says, “This stick is long and this stick is short.” Eventually the child would say, “This stick is longer than this stick.”).
- complex sentence** – a sentence that includes at least one *independent clause*, and at least one *dependent clause* (part of a sentence has a subject and predicate but cannot stand on its own as a separate sentence). In the sentence, “After the children went out to the playground, the teacher put the snacks on the tables,” the first is a dependent clause.).
- comprehension** – understanding what one has heard or what one has read (e.g., a child is able to answer questions or make comments about a story that someone has read to them).
- context clues** – information around an unfamiliar word or picture that helps the reader understand its meaning (e.g., a child determines the word thrilled means happy after hearing the sentence, “The girl is thrilled it is her birthday.”).
- cooperative** – a child deliberately works or plays with others for a common purpose or goal.
- creative movement** – moving in a new and/or unusual way that isn’t directed by the teacher (e.g., a child dances to music the teacher plays).
- creativity** – individuality expressed by creating something new or original (e.g., new way to paint a flower).
- cube** – a three-dimensional solid figure with six equal square faces and right angles; three-dimensional square.
- curiosity** – a strong interest in learning about something; children demonstrate curiosity when they ask questions about or show interest in activities within the classroom and the world around them (e.g., a child asks questions about new materials in the art center or a bug he/she discovers on the playground).
- decade** – a group, set, or series of ten.
- decode** – the understanding that alphabet letters make identifiable sounds and have meaning.
- dental health assessments** – evaluations that are conducted to determine how well a child is caring for his/her teeth.

Glossary (continued)

developmentally appropriate – decisions about the well-being and education of children based on at least three important kinds of information or knowledge: (a) what is known about child development and learning, (b) what is known about the strengths, interests, and needs of each individual child in the group, and (c) knowledge of the social and cultural contexts in which children live (Bredekamp and Copple, 1997).

dexterity – skill and grace in physical movement, especially in the use of the hands.

eagerness – energy and excitement about learning; wanting to learn (e.g., a child desires to participate in the small group activity the teacher has prepared).

emergent literacy – the range of a child’s developmental skills, knowledge, and attitudes beginning at birth, that combine with a variety of experiences related to written language; these experiences produce behaviors that change over time and result in conventional literacy during middle childhood.

emergent reading – reading-related experiences and actions that occur before a child reaches the conventional literacy stage in middle childhood (e.g., a child shows interest in being read to and told what written words mean, and develops an understanding of how to use the books and other printed materials appropriately).

emergent writing – writing-related experiences and actions that occur before a child reaches the conventional literacy stage in middle childhood (e.g., a child draws pictures or symbols to represent words).

emotional readiness – the ability to understand and express one’s own feelings, understand the feelings of others, cooperate with peers/adults, and resolve conflicts.

empathy – understanding of another’s feelings (e.g., a child tells his friend that he is sorry she scraped her knee).

equivalent – equal (e.g., a square has four equivalent sides).

exploration – the act of studying something new to better understand it.

expressive language – the ability to communicate with words; refers to what a child says, not how it is said.

eye-hand coordination – the ability to coordinate movements between the eye and hand to complete a task (e.g., hitting a softball, or catching a bean bag).

Glossary (continued)

fine motor development – development of the control, coordination and dexterity of the body’s small muscles (e.g., stringing beads, using scissors to cut paper, or writing with a marker).

geographic thinking – understanding of location and/or position of objects (e.g., below, behind, above, next to, to the right, to the left).

gross motor development – development of the balance, control, and coordination of the body’s large muscles (e.g., running, climbing, jumping, or throwing).

group life of the class – group experiences and class expectations, rules, and routines (e.g., knowing that nap time is after lunch time).

height and weight assessments – evaluations to measure child’s height and weight to determine whether they are within normal (healthy) limits.

illiteracy – not knowing how to read.

inquiry – processes of science (e.g., observe, sort, classify, describe, communicate).

instructional language – words, phrases, or ways of saying things that are common in many instructional contexts, including use of spatial or relational words to identify the location of an object (e.g., “The book is under the big table.”), the use of terms to define special locations (e.g., “Put that in the block area.”), categorical words such as opposites, and similar terms that may be unique to the instructional setting.

interpersonal skills – the ability to get along with others.

intonation – the normal rise and fall in pitch that occurs as people speak. Changes in intonation typically occur when certain words are stressed, or at the end of sentences, such as the upswing when a question is being asked, or the drop that marks the end of a complete sentence or thought.

invented spelling – a child’s first attempts to connect sounds with written letters (e.g., a child tries to spell the word cat and writes “kat” instead of “cat”).

inventiveness – the ability to think of new or unique solutions when encountering problems (e.g., a child thinks of a new way to walk and carry a cup of milk without spilling it).

Glossary (continued)

knowledge of wellness – understanding that regularly participating in physical activity, eating nutritious foods, and maintaining good hygiene promote good health and well-being (e.g., a child chooses to eat fruits or vegetables because they are healthy food choices, participates in games that involve movement, or washes his/her hands before lunch to remove dirt and germs).

language of school – the vocabulary, sentence structure, and content of language that is a key part of the educational experience.

listening skill activities – activities that require the children to listen (e.g., *Simon Says*).

literacy – the ability to read and write.

magnetic attraction – the force that makes opposite poles of two magnets pull toward each other.

natural phenomena – any event that is observable and not made or caused by humans (e.g., the wind knocks over a tree during a storm).

numeral – a symbol or set of symbols used to represent a number (e.g., the number *five* is represented by the symbol or numeral 5).

nutrition – the process of absorbing nutrients from food and processing them in the body in order to stay healthy or to grow.

nutritious – containing nutrients that are necessary for life and growth (e.g., raw fruits and vegetables are nutritious foods).

one-to-one correspondence – pairing or matching objects in a one-to-one relationship (e.g., giving one apple to each child at snack time).

onset – the initial **sound** of a syllable (e.g., the onset of cat is /c/; the onset of cheese is /ch/).

oral hygiene – keeping the mouth, tongue, teeth, and gums clean (e.g., brushing and flossing daily).

oral language – spoken language.

ordinal – showing the relative position in a sequence of numbers (e.g., first, second, third).

orientations – the positions of a shape or figure (e.g., on top of, below, behind, in front of).

oval – a two-dimensional egg-shaped figure; an elongated ring.

Glossary (continued)

pantomime – using gestures and facial expressions to tell a story without speaking (e.g., pouting, smiling, or pretending to fly).

pattern – a repeating series of units.

pattern unit – the repeating part of a pattern (e.g., red, blue would be the pattern unit in the pattern red, blue, red, blue, red, blue).

persistence – the patience and endurance to finish a task (e.g., a child works at completing a puzzle until all of the pieces are correctly placed).

phonemes – the smallest part of spoken language that makes a difference in the meaning or words (e.g., /th/, /sh/, /c/, /t/, /s/). English has 44 phonemes. Spanish has 29 phonemes.

phonemic awareness – the ability to hear, identify, and manipulate individual sounds, or phonemes, in **spoken** words.

phonological awareness – the sensitivity to, or the awareness of, the phonological structure in one's language. A broad term, phonological awareness encompasses awareness of individual words in sentences, syllables, and onset/rime segments, as well as awareness of individual phonemes.

planning – the process of preparation (e.g., a child tells the teacher what he/she will do during center time).

prediction – an idea (opinion) stated about what may happen in the future (e.g., a child may predict that the caterpillar will turn into a butterfly).

primary health care provider – one's main physician or advanced registered nurse practitioner who provides annual check ups and other medical care.

proportional – two quantities having the same or similar measurements.

receptive language – the understanding of language that is heard (e.g., a child gets in line after the teacher says, "It's time to line up.").

rectangle – a two-dimensional figure with two sets of parallel lines and four right angles.

reflection – the process of reviewing one's self or one's work.

Glossary (continued)

relative position from different perspectives – concept of the same object being in different positions based on the observer’s point of view (e.g., an upside down triangle and a right side up triangle; they are the same object but in different positions).

retraction – the force that makes like poles of two magnets push away from each other.

rhyme – correspondence of sound between words or endings of words (e.g., *cat* and *bat*, *sit* and *fit*, *mad* and *dad*).

rime – the part of a syllable that contains the vowel and all the sounds that follow it (e.g., the rime of *cat* is /at/; the rime of *cheese* is /ez/).

scaffold – to model and provide appropriate support to help a child acquire a skill or knowledge (e.g., giving clues, asking questions, and providing verbal prompts).

self-concept – a positive sense of self and the confidence to participate in classroom activities, explore, and interact with others.

self-control – a child’s ability to control his/her own behavior, especially in terms of reactions and impulses (e.g., following classroom rules and routines, using materials and managing transitions appropriately).

self-direction – acting independently when engaging in new tasks (e.g., a child attempts to independently tie his shoe because it is untied).

seriation – arrangement in rows or a series by an attribute.

set – a group of objects.

skills – the ability to use knowledge effectively and readily in performance, the ability to transform knowledge into action.

social problem-solving – developing positive strategies to settle conflicts with others in social situations (e.g., asking questions, negotiating, and seeking adult help).

social readiness – the ability to cooperate with peers and adults to resolve conflicts.

spatial sense – the ability to build and manipulate mental representations of two- and three-dimensional objects and ideas.

Glossary (continued)

- sphere** – a three-dimensional figure with a round body (e.g., a ball, marble, or globe).
- square** – a two-dimensional figure with four equal sides and four right angles.
- syllable** – a word part that contains one vowel or, in spoken language, a vowel sound (e.g., sun-shine; news-pa-per; and can-dy).
- symmetry** – the property of having exactly similar parts on both sides of a central dividing line. The correspondence in the position of pairs of points of a geometric object that are equally positioned about a point, line, or plane that divides the object.
- syntax** – patterns of grammar and the arrangement of words to form sentences. “The dog ate my shoe,” is an example of correct syntax. “The shoe ate my dog,” is an example of incorrect syntax.
- tactile experience** – exposing children to texture by providing them with opportunities to touch a variety of materials or objects (e.g., sand paper, finger paint paper, cotton, and rocks).
- temperament** – a person’s characteristic style of approaching and responding to people and situations includes activity level, adaptability, regularity, approach-withdrawal, sensitivity, distractibility, intensity, quality of mood, and attention span.
- triangle** – a two-dimensional figure with three sides and three angles.
- utterances** – real or nonsense words or sounds that a child says.
- vision assessments** – evaluations that are conducted to determine how well a child can see.
- vocabulary** – all of the words of a language. There are two types of vocabulary: receptive and expressive.
- writing conventions** – practices that include beginning a letter with a greeting such as “Dear” or “To Whom it May Concern,” ending a story with “the end,” and similar regularly used practices.



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