

# FLORIDA EARLY LEARNING AND DEVELOPMENTAL STANDARDS FOR FOUR-YEAR-OLDS (2011)





This document was developed under the auspices of the Florida Department of Education Office of Early Learning and the Agency for Workforce Innovation Office of Early Learning, to disseminate the *Florida Early Learning and Developmental Standards for Four-Year-Olds*, adopted by the Florida State Board of Education, consistent with the requirements of Section 1002.67, Florida Statutes.

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# INTRODUCTION

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# PURPOSE

The *Florida Early Learning and Developmental Standards for Four-Year-Olds (2011)* describe **skills** that four-year-olds should know and be able to do by the end of their prekindergarten year. They are designed to guide prekindergarten administrators and teachers in designing and implementing appropriate early learning **environments**. Working with four-year-olds requires knowledge of 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, high-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, teachers can individualize the curriculum and create **environments** that move children toward kindergarten ready to learn.

The mission of the *Florida Early Learning and Developmental Standards for Four-Year-Olds (2011)* 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 also differ in health and **nutritional** status, breadth of experiences prior to entering prekindergarten, their zest for learning, motor abilities, and they may have conditions that limit or create variations in the way they learn. Teachers who recognize these differences are more likely to develop positive relationships with children and their families and provide instruction that creates optimal learning **environments**.

The Standards for Four-Year-Olds 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 Standards for Four-Year-Olds will be most helpful when used to optimize the daily experiences of four-year-olds. Their uses may include

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



# BACKGROUND

**Legislative Authority** - In 2004, the Florida Legislature enacted legislation to implement the Voluntary Prekindergarten (VPK) Education Program, in accordance with the Florida 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). These agencies work 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-olds.

**Program Requirements** - 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 their age-appropriate progress in attaining the state-adopted performance standards, and prepare them 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 who has successfully completed a DOE-approved **emergent literacy** training course. (This is the minimum qualification; other educational credentials, including specified degrees, may be substituted.)

The *Florida Voluntary Prekindergarten 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

## BACKGROUND (continued)

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**. The standards were revised and benchmarks were added. On March 15, 2005, the State Board of Education approved the *Florida Voluntary Prekindergarten Education Standards (2005)*, and the Department committed to a review of these standards every three years.

The DOE established a Panel of Experts, who met on December 17-18, 2007, to ensure that the 2008 review of the *Florida Voluntary Prekindergarten Education Standards (2005)* was based on the most current research and evidence-based, effective practices in early childhood education, mathematics, and science. The panel conducted a critical review of the Cognitive Development and General Knowledge domain of the 2005 Standards.

In the original *Florida Voluntary Prekindergarten 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 Voluntary Prekindergarten Education Standards (2008)* were formally adopted by the State Board of Education on August 19, 2008. These standards created a common framework and language to ensure the “high-quality prekindergarten learning opportunity” for Florida’s four-year-olds.

In 2010, the AWI and DOE began a collaboration to create one **set** of standards for four-year-olds throughout the state. In an effort to align with a national focus on early childhood standards in five domains of development, a collaborative decision was made to include the domains of Physical Development; Approaches to Learning; Social and Emotional Development; Language, Communication, and **Emergent Literacy**; and Cognitive Development and General Knowledge in the *Florida Early Learning and Developmental Standards for Four-Year-Olds (2011)*.

AWI and DOE formed a State Panel of Experts, who convened on November 16 and 17, 2010, and critically reviewed each of the domains to ensure that the 2010 review of the *Florida Voluntary Prekindergarten Education Standards (2008)* was based on the most current research and evidence-based, effective practices in the field of early childhood education. Additionally, State Continuity Reviewers and National Experts were identified and reviewed the draft *Florida Early Learning and Developmental Standards for Four-Year-Olds (2011)*, which resulted from the State Panel of Experts meeting. These reviewers looked at **content** within each domain as well as continuity across all domains.

The *Florida Early Learning and Developmental Standards for Four-Year-Olds (2011)* were presented to the State Board of Education for approval. These standards establish one **set** of performance standards for Florida’s four-year-olds in School Readiness and VPK programs, are aligned with the kindergarten *Next Generation Sunshine State Standards* and *Common Core State Standards*, and prepare children for kindergarten.

# HOW TO USE THE STANDARDS FOR FOUR-YEAR-OLDS

The domains, or areas of development, are a useful way to look at the developmental progression of related **skills** and abilities of four-year-olds. They are identified with a capital Roman **numeral** (e.g., I, II, III). Each domain begins with an introduction 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**, supportive instructional practices, and **environmental** considerations. All child **skills**, supportive instructional practices, 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 Social and Emotional Development and Cognitive Development and General Knowledge also have areas that more precisely organize the types of **skills** to be learned (See page nine for an example of a standards page that includes an area).

Standards are expectations of what children should know and be able to do by the end of the prekindergarten year; they are identified by a **numeral** (e.g., 1, 2, 3). A description of each standard is also provided. The Language, Communication, and **Emergent Literacy** domain and the Mathematical Thinking component of the Cognitive Development and General Knowledge domain include benchmarks for development. Benchmarks are more precise than standards and are set to reflect the level of skill and knowledge that should be demonstrated by a child at the end of the prekindergarten experience (when most, if not all, of the children would be five years of age). The purpose of these benchmarks is to establish 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 four-year-old 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 teachers in **planning** instruction and discussing expectations and growth with a child's family. 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.

# HOW TO USE THE STANDARDS FOR FOUR-YEAR-OLDS (continued)

The Standards for Four-Year-Olds (2011) 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 prekindergarten year. The Standards for Four-Year-Olds are grouped around five domains of development:

- I. Physical Development
- II. Approaches to Learning
- III. Social and Emotional Development
- IV. Language, Communication, and Emergent Literacy
- V. Cognitive Development and General Knowledge

Listed below each standard (or benchmark, if applicable) are examples of behaviors that teachers might observe as evidence of a child's achievement of the standard. 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 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 section in the 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 supportive instructional strategies are also included. 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. Teacher tips 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.

Terms that appear in **bold italic** are defined at the end of each domain. The glossary found at the end of the book includes definitions of all glossary terms found throughout the entire document.

It is important to remember that, although individual development proceeds through a predictable sequence of **milestones**, there are 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, or have disabilities or delays may reflect the achievement of the standards in ways that are unique to their strengths and challenges.

# HOW TO USE THE STANDARDS FOR FOUR-YEAR-OLDS (continued)

**IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY**  
**FOUR-YEAR-OLDS**

**Related Skills Within The Standards**

- Related Skills Within The Standards
- I. Physical Health
- II. Approaches to Learning
- III. Social and Emotional Development
- IV. Language, Communication, and Emergent Literacy
- V. Cognitive Development and General Knowledge

**Teacher Tips**

The ability to recognize that a word can be separated into its initial sound or sounds (e.g., the /t/ in "toy" and the /gr/ in "grow") allows children to perform a number of different manipulations with words. Once children can separate out the first sounds (onset) from the rest (rime), they can recognize when two words share the same final sound or rhyme. Children also can identify words by their first or initial sounds (onset), and can match words that share the same initial sound. The focus should be on children's accuracy in separating, naming, or matching the initial sounds, rather than on how quickly they can do this task.

**Environmental Considerations**

Environmental Considerations: Provide books and poems that rhyme, as well as picture cards to use when playing word games.

**F. Emergent Reading**

**2. Shows age-appropriate phonological awareness.**  
Phonological awareness is an auditory skill and is the ability to recognize and manipulate speech sounds within spoken language. Developing phonological awareness in preschool leads to success in reading and writing in the school years. Development of phonological awareness is enhanced with consistent and intentional instruction. With teacher support children are increasingly aware of and can differentiate the units of sound within spoken words.

**Benchmark F:** Child combines onset and rime to form a familiar one-syllable word with and without pictorial support (e.g., when shown several pictures, and adult says /c/ + "at", child can select the picture of the cat).

**Examples illustrating this benchmark include:**

- saying the name of familiar one-syllable words when the teacher says the word with a pause between the onset (first sound) and the rime (vowel sound to the end of the word)
- picking up all the toys in the room that begin with the /b/ sound, like baby, blocks, and books
- saying their own names with a separation between the first sound and the rest of the sounds
- identifying which two of three words rhyme and which does not.

**Supportive Instructional Strategies:**

- Say familiar words with clear separation between the onset and the rime (e.g., say, "Let's read the b—ook." Or "Go get the c—up.")
- Provide pictures of familiar one-syllable words cut into two pieces for children to put together and separate while orally blending together and taking apart the words into onset/rime segments.
- Give children sets of four picture cards and help them to say the name of each picture aloud. Have the children find the card that does not start with the same sound as the other three.
- Select word carefully for use in these activities. Words with blends (e.g., /b/ in blocks, /st/ in street) or digraphs (e.g., /sh/ in shoes, /ch/ in chair are more challenging for children to manipulate.)
- Pronounce isolated sounds without an /uh/ sound when articulating individual sounds. (e.g., /b/ instead of /buh/).

**V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE**  
**FOUR-YEAR-OLDS**

**Related Skills Within The Standards**

- Related Skills Within The Standards
- IV. Language, Communication, and Emergent Literacy
- C.1.a, C.1.b, C.1.c

**Teacher Tips**

Mathematical language is deeply imbedded in the learning and teaching of mathematics.

**Environmental Considerations**

Incorporate a variety of counting books throughout the classroom.

**A. Mathematical Thinking**

**a. Number Sense**

**4. Assigns and relates numerical representations among numerals (written), sets of objects, and number names (spoken) from zero to 10**  
As four-year-old children learn about counting objects, they begin to assign number words to numerals and sets. These number words add to the children's expanding vocabulary with daily exposure to counting sets and objects through meaningful experiences.

**Examples illustrating this standard include:**

- counting each object in a group of objects on a flannel board to determine the total number of objects and then placing the correct numeral (written) next to the group
- pointing to each block in a tower and assigning a number to each block to determine the total number of blocks
- pointing to each snack and assigning a number to each snack to determine the total number of snacks.

**Supportive Instructional Strategies:**

- Incorporate counting into everyday activities (e.g., counting the number of boys and the number of girls and then identifying which numeral (written) represents that amount).
- Model counting and using the appropriate number names (spoken) for the children during everyday activities (e.g., counting napkins for each during snack time).
- Encourage children to count objects (e.g., their fingers, toes, buttons on their shirt, stripes on a flag) and point out numerals (written) in the world around them.

# USING THE STANDARDS FOR FOUR-YEAR-OLDS WITH DIVERSE LEARNERS

(Adapted from the work of the California, Indiana, Nebraska, and Texas Departments of Education)

It is well understood that children learn at different rates and have varying abilities and interests, and that each child's learning is significantly influenced by the experiences he or she brings to the educational **environment**. When diverse learners (e.g., children with disabilities and children whose native language is other than English) are in the prekindergarten classroom, the variations in learning rates and abilities increase. Each child must be viewed as a unique person with an individual **pattern** and timing for growth, raised in a cultural context that may impact the acquisition of certain **skills** and competencies. Adults who recognize and appreciate differences in children readily adapt instruction. Adaptations are crucial if all children in the setting are to have the opportunity to participate fully and make developmental progress.

Four-year-olds whose native language is other than English are still learning their native language. It is important to foster acquisition of their native language along with English. The goal is to provide language- and **literacy**-rich **environments** that foster their mastery of the Standards for Four-Year-Olds while they begin to acquire English. There will be times when they are learning English that these children may appear not to be proficient in either language. This is a developmental stage that should be expected. With appropriate supports, most children whose native language is other than English will be able to become proficient in both English and their native language.

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

- recognize that all children are cognitively, linguistically, and emotionally connected to the language and **culture** of their home
- acknowledge that children can demonstrate their knowledge and capabilities in many ways
- understand that, without comprehensible input, second-language learning can be difficult.

Some general strategies that can be used in the prekindergarten classroom to support children whose native language is other than English are listed below. Some of these are similar to those used in helping younger children develop their language **skills**:

- recognize that the child's native language serves as a foundation for knowledge acquisition
- start with what the child knows - involve parents by asking them to provide a few important words in the language used in their home
- 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



## USING THE STANDARDS FOR FOUR-YEAR-OLDS WITH DIVERSE LEARNERS (continued)

- 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
- modify materials and activities so the child can participate as independently as possible
- use peers as models, helpers, and friends to provide praise and encouragement
- ensure that naturally occurring events and routines, such as opportunities to use materials both independently and cooperatively, are purposefully arranged so the child has many learning opportunities
- provide visual supports (e.g., pictures, drawings, labels, color coding, picture schedules)

## USING THE STANDARDS FOR FOUR-YEAR-OLDS WITH DIVERSE LEARNERS (continued)

- create a picture schedule to help children understand which activity or routine may occur next
- use materials, toys, or a person in whom a child has shown a special interest to support active participation in activities or routine
- adapt the flow of the room, activity areas, seating, and position options in ways that promote active participation.

Each domain's introduction includes domain-specific strategies to support inclusive learning ***environments***.

# RECOMMENDATIONS FOR THE EARLY LEARNING ENVIRONMENT

Designing **environments** that help children make progress in their learning and development as described in the Standards for Four-Year-Olds requires knowledge, **planning**, **reflection**, and modification of the **environment** to meet children's needs. Optimal early learning **environments** evolve 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. Many children spend a lot of time alone and little 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 the **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 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 later 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 Standards for Four-Year-Olds 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 DEVELOPMENT



I. PHYSICAL DEVELOPMENT



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# OVERVIEW OF PHYSICAL DEVELOPMENT STANDARDS

## A. Health and Wellness

1. Shows characteristics of good health to facilitate learning
2. Shows visual abilities to facilitate learning and healthy growth and development
3. Demonstrates auditory ability to facilitate learning and healthy growth and development
4. Demonstrates characteristics of good oral health and performs oral hygiene routines
5. Shows familiarity with health care providers in relation to health and wellness
6. Demonstrates self-control, interpersonal, and social skills in relation to mental health
7. Shows basic physical needs are met
8. Actively takes part in basic health and safety routines
9. Participates in physical fitness activities
10. Makes healthy food choices

## B. Self-Help

1. Actively participates in self-care
2. Helps carry out classroom routines

## C. Gross Motor Development

1. Demonstrates increasing motor control and balance
2. Demonstrates the ability to combine movements for gross motor skills

## D. Fine Motor Development

1. Demonstrates increasing control of small motor muscles to perform simple tasks
2. Uses eye-hand coordination to perform fine motor tasks
3. Shows beginning control of writing by using various drawing and art tools with increasing coordination

# PHYSICAL DEVELOPMENT INTRODUCTION

Physical development and overall good health is the foundation for every aspect of child development and learning. Physical health and mental wellness impact every aspect of development.

When four-year-olds are physically active and healthy, social well-being is enhanced. Their visual and auditory **skills** are refined in ways that facilitate language learning. Through the four components of physical development, four-year-olds are developing **skills** that enable them to be active partners in managing their health, safety, and physical fitness. These developing **skills** along with medical evidence underscore the importance of health promotion in the prekindergarten classroom. A growing research base demonstrates that adult medical conditions (e.g., obesity, diabetes, hypertension, and cardiovascular disease) begin to develop during gestation and early childhood. Childhood is also when many health-related behaviors (e.g., eating preferences and exercise **patterns**) are developed. These findings leave little doubt that promoting good health habits in prekindergarten is one step toward promoting life-long health.

The first component is **health and wellness** and is demonstrated when children follow basic health and safety rules and habits, such as making good food choices, participating in physical activity, and performing **self-care** tasks independently. Four-year-old children, in their zest for independence, watch what adults do and are anxious to help and assume new “jobs.” The status and support of **nutritional**, mental, physical, dental, auditory, and visual health is included in this component.

**Self-help** is the second component and focuses on the child’s capacity to accomplish health and **self-care** routines with increasing independence. This component also highlights the child’s increasing role as a part of the classroom community, taking part in classroom routines.

**Gross motor development**, the third component, involves balance, control, and coordination of movements controlled by the body’s large muscles. Four-year-olds run, hop, jump, swing, and climb, looking for challenges. Research and experience confirm that play alone is not sufficient for the development of **gross motor skills**. Planned movement activities are needed and require props and manipulatives (e.g., balls, scarves, hoops, ropes, and beanbags). Unstructured play and movement activities remain important and provide opportunities for four-year-olds to practice their developing movement **skills**.

The fourth component, **fine motor development**, focuses on the child’s control, coordination, and grace, especially in the use of the hands. These small muscle **skills** typically lag behind **gross motor skills**. Four-year-olds can complete more complicated projects as their **eye-hand coordination** improves, and they develop a more conventional hand grasp that enables them to begin to control writing and drawing tools.

### Strategies to Support Inclusive Learning Environments

- 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).
- Collaborate with health care professionals (e.g., developmental pediatrician, nurse, and audiologist).
- Pair visual and auditory materials to facilitate learning.
- Adapt child's clothing to increase independence (e.g., adding a tab or pull on a zipper, placing a red sticker on the right shoe).
- 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 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.

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

I. Physical Health  
D.1.

### IV. Language, Communication, and Emergent Literacy

B.1.a., E.1.a., G.1.a., G.3.a., G.4.a.

### Teacher Tips

See Appendix A for height and weight charts. See Appendix B for body mass index chart.

### 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).

### A. Health and Wellness

#### 1. Shows characteristics of good health to facilitate learning

Good *health and wellness* are necessary to optimize learning. Adults are responsible for facilitating good *health and wellness* in young children. In addition, four-year-old children are developing cognitive, language, motor, and social-emotional *skills* that enable them to begin to take some responsibility for their own health practices.

#### Examples illustrating this standard include:

- showing typical height and weight for their age
- participating actively in daily events and social interactions (e.g., playing on playground, listening to a story during large group time, or interacting in the housekeeping area)
- coordinating many eye-hand movements
- demonstrating *gross motor skills* (e.g., jumping, hopping, and running).

#### Supportive Instructional Strategies:

- Conduct *height and weight assessments* to ensure children have physical stature within the typical range for the appropriate age group. (See Appendices A and B for more information).
- Provide age-appropriate movement activities and equipment.
- Demonstrate proper hand washing and nose blowing techniques.
- Provide ongoing opportunities for children to make healthy food choices.

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

##### D.2.

#### IV. Language, Communication, and Emergent Literacy

G.1.a., G.1.b., G.2.1., G.2.b., G.3.a., G.3.b.

#### Teacher Tips

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

#### 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.

#### A. Health and Wellness

#### 2. Shows visual abilities to facilitate learning and healthy growth and development

Four-year-old children are continuing to develop the visual abilities that are needed for success in school and in life. As they advance in school, children rely on their visual abilities to help them perform tasks like reading and writing.

**Vision screening** is important if teachers begin to notice behaviors that might signal the presence of vision problems (e.g., squinting and rubbing eyes, bringing the book closer to the face in an attempt to see better).

#### Examples illustrating this standard include:

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

#### Supportive Instructional Strategies:

- Offer art experiences that require visual ability (e.g., crayons, stickers, collage materials, and easel painting).
- Provide opportunities for outdoor play that require visual ability (e.g., running, climbing, and catching balls).
- Observe to see if children are using both eyes during classroom activities (e.g., puzzles, pegboards, and lacing cards).
- Observe to see if children are squinting while looking at a big book or large pictures held by the teacher at large group time.



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., F.4.a.

V. Cognitive Development and General Knowledge

D.a.1.

### Teacher Tips

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

### 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.

### A. Health and Wellness

#### 3. Demonstrates auditory ability to facilitate learning and healthy growth and development

Children's ability to hear and discriminate sounds in the classroom *environment* is an important factor for many areas of development. It can impact their interactions with friends, affect their language and literacy development, and provide a challenge that teachers must be aware of and plan for.

#### Examples illustrating this standard include:

- discriminating different sounds
- identifying animal sounds that are recorded or heard in nature
- reproducing a finger play after listening to a teacher demonstrate
- producing speech that is understandable
- participating interactively during classroom activities and orienting to a speaker when addressed by name (e.g., facing a friend who is speaking, turning to hear the teacher address the class).

#### Supportive Instructional Strategies:

- Conduct *auditory (hearing) screening* or seek community resources to ensure *auditory (hearing) screening* of children.
- Observe to see if children respond to different types and levels of sound in ongoing activities, including the volume at which children speak to others.
- 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, provide a listening *center*).
- Read daily and ask frequent, relevant questions to encourage and support the development of good listening *skills*.

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.4., B.1.

### Teacher Tips

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

### 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.

### A. Health and Wellness

#### 4. Demonstrates characteristics of good *oral health* and performs *oral hygiene* routines

Children's *oral hygiene* and health can impact many areas of children's development if problems are not addressed. Some children may be self-conscious about these problems, which can affect their social interactions with peers. Additionally, placement of teeth is critical to a four-year-old's development of speech and *articulation*. For children with *oral health* problems, a teacher's guidance in providing classroom activities and sharing local support services with the family can greatly improve the child's ability to learn and be successful in the learning *environment*.

#### Examples illustrating this standard include:

- learning how to use dental hygiene tools (e.g., toothbrush, floss)
- performing daily tooth brushing in the classroom
- performing daily flossing with assistance
- showing a growing understanding of the relationship between *nutritional* choices and dental health.

#### Supportive Instructional Strategies:

- Conduct screening of *oral health* or seek community resources to ensure screening of *oral health*.
- Observe children for indications they are having difficulty chewing, eating, or speaking.
- Observe children for indications of facial pain or mouth pain and note any visual signs of decay or abnormalities.
- Provide learning opportunities related to *oral health* (e.g., reading a book, looking at teeth in a mirror) and the impact of *nutrition* on dental health (e.g., talk about healthy foods and drinks during meals and snacks, grow or provide healthy food choices, use small group activities to explore how certain foods clean our teeth [apples] or make our teeth sticky/dirty [marshmallows]).
- Provide special classroom visitors, field trips, books, and large group time experiences to promote *oral health*.



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c

V. Cognitive Development and General Knowledge

C.a.3.

### Teacher Tips

See Appendix C for AAP Preventive Pediatric Health Care Guidelines. Children with a primary health care provider are more likely to receive well-child check-ups and preventive care.

### Environmental Considerations

Include health props for the *dramatic play* area, books about health issues and procedures, and materials and equipment to promote good health routines.

### A. Health and Wellness

#### 5. Shows familiarity with *health care providers* in relation to *health and wellness*

Early learning practitioners play an important role in helping children learn about *health care providers* in relation to *health and wellness*. To promote healthy development and wellness, every child needs a source of continuous and accessible health care. Each child should visit a health care provider on a schedule of preventive and primary health care to ensure that *health and wellness* issues are identified and addressed.

#### Examples illustrating this standard include:

- using instruments appropriately while playing the role of doctor or nurse in a play setting
- recognizing common medical screening (e.g., measurement of weight and height, blood pressure testing, and using a thermometer to check temperature)
- knowing roles of a variety of health care professionals
- naming most of the body parts that medical professionals inspect.

#### Supportive Instructional Strategies:

- Provide books, large group time, and *dramatic play* activities to encourage good health routines.
- Use supplies, equipment, and *vocabulary* relevant to primary health care during large group time and small group activities (e.g., show a stethoscope and talk with children about its purpose).
- Provide written material to parents on community events that support wellness.
- Invite a health care provider or athletic trainer to visit classroom to discuss what they do and importance of good health.



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.8., A.9., B.2., C.2.

#### II. Approaches to Learning

B.1., C.1.

#### III. Social and Emotional Development

A.a.1., A.b.1., B.a.1., B.b.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., D.1., E.1., E.2.

#### V. Cognitive Development and General Knowledge

B.a.2., B.e.1.

### Teacher Tips

Re-directing children's attention away from particular events or situations allows them to evaluate the situation and reconsider their actions.

### Environmental Considerations

Provide children with puppets, books, and *dramatic play* areas to encourage role-playing of a story or conflict resolution.

### A. Health and Wellness

#### 6. Demonstrates self-control, interpersonal, and social *skills* in relation to mental health

Behavioral health is as important as physical health. Four-year-olds need teachers who model positive behaviors and assist in promoting positive mental health. This includes developing appropriate coping behaviors and social *skills*, which can aid in the prevention of challenging behaviors.

#### Examples illustrating this standard include:

- using language, rather than hitting or kicking, to communicate frustration
- labeling emotions (e.g., "I feel sad.")
- adapting to changes in daily routines
- appropriately joining a group of peers in play
- initiating play with peers
- participating in learning activities without teacher prompting.

#### Supportive Instructional Strategies:

- Follow a predictable routine, including a five-minute warning before changing activities.
- Provide opportunities that foster cooperation.
- Model language to express emotions.
- Provide information to families and children regarding primary and preventive physical and mental health care.

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.9., B.1., C.1., C.2.

#### Teacher Tips

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.

#### Environmental Considerations

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

### A. *Health and Wellness*

#### 7. Shows basic physical needs are met

Despite their newly found skills and knowledge, four-year-olds 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.

#### Examples illustrating this standard include:

- being alert and participating in activities, with energy typical of four-year-olds
- seeking appropriate interaction with other children and their teacher
- showing an understanding of hygiene (e.g., knowing to wash hands before eating a meal or after toileting)
- wearing clothing that is appropriate for the weather
- arriving at school with a clean body and clothing.

#### Supportive Instructional Strategies:

- Provide book, *center*, and large group time activities related to **health and wellness** needs (e.g., use puppets to demonstrate someone with and without enough sleep).
- Communicate with child's family frequently regarding the child'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).



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.10., B.1.

#### V. Cognitive Development and General Knowledge

C.d.1.

### Teacher Tips

Be prepared for fire and tornado drill procedures. Identify the location of all first aid equipment.

### 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.

### A. Health and Wellness

#### 8. Actively takes part in basic health and safety routines

Four-year-olds develop wellness behaviors and *skills* largely after those modeled by adults in their lives. They are very interested in their growing bodies. Four-year-olds are beginning to understand more about how to keep themselves healthy by choosing healthy foods, practicing good hygiene, and staying safe. They are usually able to recognize harmful objects and can avoid them. Four-year-olds need continued support to remember health and safety routines.

#### Examples illustrating this standard include:

- recognizing unsafe items (e.g., a spray bottle of bleach solution on the table) and telling a teacher
- choosing a healthy snack and explaining the reason for their choice
- telling an adult when they see another child doing something dangerous, such as throwing rocks or sand
- using safe behaviors (e.g., walking in the classroom rather than running, wiping up spills under the water table) with guidance from the teacher
- demonstrating age-appropriate hygiene (e.g., washing hands or covering mouth when coughing).

#### Supportive Instructional Strategies:

- Provide food preparation opportunities and cooking experiences using *nutritious* ingredients.
- Develop, discuss, and regularly review health and safety rules (e.g., carrying scissors with points down, walking in the classroom, and washing hands after using the toilet).
- Conduct regular fire and emergency drills.
- Discuss and demonstrate age-appropriate hygiene (e.g., hand washing, sneezing or coughing into the crook of the arm).

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.7., C.1., C.2.

### Teacher Tips

See Appendix A for Height and weight charts. See Appendix B for Body Mass Index chart.

### 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).

### A. *Health and Wellness*

#### 9. Participates in physical fitness activities

Four-year-old children need to move and participate in free play and planned movement activities consistent with their physical capabilities. Children who regularly participate in developmentally appropriate activities are more likely to be of an appropriate weight for their height and age. When teachers create opportunities and encourage exercise and movement, children are more likely to develop good physical fitness habits.

#### Examples illustrating this standard include:

- 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.

#### Supportive Instructional Strategies:

- Include active outdoor free play in the daily schedule.
- Plan and provide movement activities daily (e.g., as a part of large group time, transitions, or outdoor play).
- Plan and provide activities that 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 large group time).



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.4., A.8.

### Teacher Tips

See Appendix D for information about the USDA's new Food Plate.

### 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 that promote good *nutrition*.

### A. Health and Wellness

#### 10. Makes healthy food choices

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

#### Examples illustrating this standard include:

- identifying healthy snacks
- participating in the preparation and sampling of *nutritious* foods
- naming many different healthy foods
- talking with classmates about healthy and unhealthy snack and lunch items.

#### Supportive Instructional Strategies:

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

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.4., A.7., A.8., C.2., D.1., D.2.

#### III. Social and Emotional Development

A.b.1.

#### IV. Language, Communication, and Emergent Literacy

A.2.a.

### Teacher Tips

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.

### 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).

## B. Self-Help

### 1. Actively participates in *self-care*

Four-year-olds are increasingly independent in their *self-care*. They like to dress themselves, go to the bathroom on their own, and are able to follow rules for health routines (e.g., washing their hands after using the toilet). Even with their growing abilities and independence, four-year-olds still need consistent modeling and may need reminders about *self-care* routines.

### Examples illustrating this standard include:

- following the classroom's procedures for toileting and hand washing
- using child-sized utensils to eat
- drinking water from a child-sized water fountain with little or no assistance
- putting on shoes and clothes with minimal assistance, including learning to zip, button, and buckle
- covering the mouth when coughing and using a tissue to blow the nose.

### Supportive Instructional Strategies:

- Post visual and written reminders of *self-care* tasks (e.g., steps for hand washing, photos of children independently putting on jackets or using a fork to eat).
- Create opportunities in the schedule for children to help set up and clean up (e.g., a helper chart can be created for routine tasks like setting the table or restocking tissues).
- Develop *center* activities that provide practice for dressing *skills* (e.g., zipping, buckling, and the introduction of tying).

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.9.

#### II. Approaches to Learning

B.1., C.1.,

#### IV. Language, Communication, and Emergent Literacy

A.1.a., A.2.a.

### Teacher Tips

Creating a "Classroom Helpers" chart allows children to participate in classroom routines throughout the school day and develop an understanding of teacher expectations.

### Environmental Considerations

Post a "Classroom Helper's" chart at the children's eye-level so they may refer to it often and know what is expected of them (e.g., passing out napkins, cups and snacks to classmates during a scheduled snack time).

### B. Self-Help

#### 2. Helps carry out classroom routines

Children should be provided the opportunity to participate actively during familiar classroom routines and to interact with peers and adults during these routines.

#### Examples illustrating this standard include:

- setting the table for snack or meals
- passing out snacks, art materials, or other items
- participating in classroom helper jobs
- helping clean up toys and activities.

#### Supportive Instructional Strategies:

- Post visual and written reminders about classroom routines.
- Create opportunities in the schedule for children to help set up and clean up (e.g., a helper chart can be created for routine tasks like setting the table or restocking tissues).
- Develop classroom helper jobs and responsibilities.



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.7., A.9.

### Teacher Tips

Sequence of Locomotor Skill Development:

- Walking
- Marching
- Galloping
- Hopping
- Running
- Moving around obstacles
- Skipping

### Environmental Considerations

Include a variety of indoor and outdoor physical activity areas, props, materials, and equipment.

### C. *Gross Motor* Development

#### 1. Demonstrates increasing motor control and balance

Four-year-olds are gaining increasing control over *gross motor skills* and more complex movements (e.g., walking, running, jumping, dancing, and climbing). As they practice, four-year-olds become more coordinated and confident in their physical abilities. They improve their *skills* through free-play activities where they can move as they wish and through structured, planned activities where they are challenged to develop new *skills* with adult guidance and support.

#### Examples illustrating this standard include:

- jumping, galloping, or skipping
- climbing ladders on play equipment with alternating feet and increasing confidence
- running, stopping quickly, and running around obstacles
- pedaling consistently with alternating feet and navigating turns when riding a wheeled toy or tricycle.

#### Supportive Instructional Strategies:

- Provide daily structured physical activities (e.g., obstacle course, dancing to *music*, class walk).
- Provide daily unstructured times for physical activity (e.g., free-play time), including outdoor play with playground equipment.
- Ensure all children are participating in developmentally appropriate gross-motor activities daily.



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., A.7., A.9., B.1.

#### III. Social and Emotional Development

B.1.

### Teacher Tips

#### Keys to Modifications:

- **Environmental** alterations to promote participation
- Material modification
- Simplification of the activity

### Environmental Considerations

Include a variety of physical activity props, materials, and equipment, as well as modifications to ensure the maximum participation of all children.

### C. *Gross Motor* Development

#### 2. Demonstrates the ability to combine movements for *gross motor* skills

As four-year-olds develop increasing control of the muscles in their arms and legs, they are able to master more difficult physical activities. Activities that use one side of the body (e.g., hopping on one foot) and activities that require coordination of both sides (e.g., dancing to a beat) help children improve coordination and balance. Children improve these new **skills** through self-practice and with adult involvement.

#### Examples illustrating this standard include:

- peddling a tricycle
- galloping and jumping
- throwing, catching, and kicking a ball.

#### Supportive Instructional Strategies:

- Offer a variety of outdoor materials (e.g., bikes, balls, parachutes, bean bags, hula hoops).
- Plan teacher-directed movement activities (e.g., Follow the Leader; Duck, Duck, Goose; Head, Shoulders, Knees, and Toes), focusing on turn-taking rather than winning and losing.
- Provide a variety of **music** genres (styles) and opportunities for free rhythmic expression.
- Provide daily outdoor free play using *gross motor* equipment.

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.1., B.1.,

#### III. Social and Emotional Development

A.b.1.

#### IV. Language, Communication, and Emergent Literacy

G.1.a., G.1.b., G.4.a.

#### V. Cognitive Development and General Knowledge

A.d.3.a., A.d.3.b., D.a.1.

### Teacher Tips

*Dramatic play* can provide many opportunities for *fine motor* development.

### 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.

### D. *Fine Motor* Development

#### 1. Demonstrates increasing control of small motor muscles to perform simple tasks

*Fine motor* development continues to progress, and four-year-olds are increasingly able to control the small muscles in their hands, including using a *pincer grasp* to hold writing utensils. Children continue to develop at their own pace. Some four-year-olds may be able to cut accurately with scissors while others may still need instruction and practice.

#### Examples illustrating this standard include:

- sorting and handling small objects (e.g., tiny shells in the science *center*)
- weaving long pieces of ribbon through the chain link fence on the playground, using the *pincer grasp* to push and pull the ribbon through the holes
- sliding paper clips onto pieces of paper at the writing *center* (Note: Teachers must assess the safety of using small objects with each group of students at a given point during the school year. Small objects could be used in teacher-directed small group experiences if deemed unsafe to leave in an independent-use *center*.)
- pulling and squeezing clay or playdough at the art table.

#### Supportive Instructional Strategies:

- Provide children with daily opportunities to use a variety of writing tools (e.g., pencils, crayons, and markers).
- Provide children with opportunities to use a variety of other age appropriate tools (e.g., kitchen tools including tongs, egg beater, wooden spoon; woodworking tools including wrench, screwdriver, and hammer).
- Provide daily opportunities for children to use scissors (e.g., to cut paper and tape).
- Display and store materials so that children have easy access and choice and allow children the opportunity to put things away.
- Plan activities that strengthen the hand muscles (e.g., rolling playdough, using scissors, or a hole-punch).



# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

A.2., B.1.

#### III. Social and Emotional Development

A.b.1.

#### IV. Language, Communication, and Emergent Literacy

G.1.a., G.1.b., G.4.a.

#### V. Cognitive Development and General Knowledge

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., D.a.1.

#### Teacher Tips

Four-year-old children are interested in learning to cut with scissors; be sure to discuss safety issues.

#### Environmental Considerations

Provide many different sizes of *fine motor* items and containers for storage.

### D. *Fine Motor* Development

#### 2. Uses *eye-hand coordination* to perform *fine motor* tasks

*Eye-hand coordination* is becoming more refined in four-year-old children. They continue to make progress through creative art opportunities (e.g., drawing and painting) and through construction activities (e.g., building with blocks or hammering at a woodworking table). *Eye-hand coordination* is important in the development of writing, and four-year-olds benefit from supportive teacher *scaffolding*.

#### Examples illustrating this standard include:

- building vertical towers using small *cubes*
- pouring water or sand through funnels at the sand and water table, or pouring juice from a pitcher at snack time
- putting together increasingly complicated puzzles
- cutting on a line or around a large shape with scissors
- stringing beads with holes on a length of yarn
- writing some recognizable letters or shapes using pens or markers.

#### Supportive 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). (Note: Teachers must assess the safety of using small objects with each group of students at a given point during the school year. Small objects could be used in teacher-directed small group experiences if deemed unsafe to leave in an independent-use *center*.)
- Provide daily opportunities to use art materials (e.g., scissors, markers, glue sticks, paint brushes).

# I. PHYSICAL DEVELOPMENT

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

G.1.a., G.1.b., G.2.a., G.2.b., G.3.a., G.4.a.

#### V. Cognitive Development and General Knowledge

D.a.1.

### Teacher Tips

Four-year-old children are often excited to tell a story about their drawings. To create a record of this, teachers can write the child's story on the paper (dictation).

### Environmental Considerations

Include a variety of writing, drawing, and art materials and tools, as well as designated spaces for displaying children's work.

### D. *Fine Motor* Development

#### 3. Shows beginning control of writing by using various drawing and art tools with increasing coordination

Four-year-olds are continuing to strengthen the small muscles in their hands when they use tools for writing, drawing, and creating art. ***Fine motor*** control is still developing. Four-year-olds are progressing through the stages of drawing and writing, from making marks and scribbles to eventually creating a realistic picture. Each child progresses differently; some may draw realistic pictures early and others may take much longer. Continued opportunities to practice with creative art materials and tools are important.

#### Examples illustrating this standard include:

- experimenting with different sized brushes at the painting easel
- drawing figures and shapes on paper, easels, and erase boards and in the sand
- using cutters, molds, and other age-appropriate tools when playing with clay
- using scissors with one hand independently
- writing recognizable letters or shapes using crayons or markers.

#### Supportive Instructional Strategies:

- Encourage the use of writing, drawing, and art tools by ***planning*** age-appropriate activities and changing materials on a regular basis, including writing outside with chalk.
- Display children's writing, drawing, and art and direct parents' attention to the displays.
- Create a writing folder or journal for each child that is accessible throughout the day.

# PHYSICAL DEVELOPMENT GLOSSARY

**articulation** - the correct pronunciation of one or more sounds within a word (e.g., a child says “ellow” for the word yellow or “ish” for the word fish).

**auditory (hearing) screening** - evaluations that are conducted to determine how well a child can hear.

**center** - area 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**).

**dramatic play** – expressive and spontaneous play.

**environment** – the circumstances, objects, or conditions by which one interacts with and is surrounded.

**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** - abilities using the small muscles of the hands (e.g., grasping toys, picking up or holding food, connecting links, lacing, drawing, crushing paper, cutting with scissors, holding a writing utensil).

**gross motor** - abilities using the large muscles of the arms, legs, and torso (e.g., walking, running, jumping, pedaling, throwing, and dancing).

**health and 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 foods, participates in games that involve movement, or washes his/her hands before lunch to remove dirt and germs).

**health care providers** - one’s main physician and dentist, as well as other specialists who provide annual checkups and needed medical care.

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

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**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 health** - overall health of mouth, free of disease, defect, or pain. This translates to much healthy teeth.

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

**pincer grasp** - the act of holding objects between the thumb and index finger.

# PHYSICAL DEVELOPMENT GLOSSARY (CONTINUED)

**planning** - the process of mental preparation and problem-solving in order to accomplish an act (e.g., a child tells the teacher what he/she will do during center time).

**scaffolding** - the provision of sufficient support to promote learning when concepts and skills are being first introduced to students (e.g., modeling, giving clues, asking questions, and providing verbal prompts).

**self-care** - the capacity to take care of personal needs (e.g., drinking from a cup, getting dressed, washing hands, making choices, toileting independently).

**skills** - the ability to use knowledge effectively and readily in performance, the ability to transform knowledge into action.

**vision screening** - evaluation 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.





## II. APPROACHES TO LEARNING



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# OVERVIEW OF APPROACHES TO LEARNING STANDARDS

## A. Eagerness and Curiosity

1. Shows curiosity and is eager to learn new things and have new experiences

## B. Persistence

1. Attends to tasks for a brief period and seeks help when needed

## C. Creativity

1. Approaches daily activities with creativity

## D. Planning and Reflection

1. Shows initial signs of planning and learning from their experiences

# APPROACHES TO LEARNING INTRODUCTION

Approaches to Learning is a unique and critical domain of children's development. Although each of the other domains of development reflects specific **content** knowledge that document what children know and do, Approaches to Learning is not about specific **content** knowledge. Instead, it addresses how children deal with new **environments**, interactions, and discoveries. Approaches to Learning describes children's attitudes and dispositions toward learning.

The four components of approaches to learning, **eagerness and curiosity, persistence, creativity, planning and reflection**, help direct the "how" of learning in all other domains of development. Children learn best when **eagerness** and **curiosity, persistence, creativity, and planning and reflection** are encouraged and supported in all domains of development through play. The role of adults includes providing opportunities for success for all styles of learning. In this way, all children, regardless of learning style or special needs, will learn and be successful. The degree to which they successfully employ approaches to learning components is highly dependent upon the quality and quantity of interactions with supportive adults and peers.

**Eagerness and curiosity**, the first component, is observed as children show interest in exploring their immediate **environment**, as well as solving the challenges of learning about the larger world. While **eagerness** and **curiosity** set the stage for learning, setbacks and obstacles are a normal part of the learning process. The second component, **persistence**, is necessary to sustain challenging tasks in the face of obstacles and setbacks that are a normal part of children's development. A child's first approach in a new learning situation may not result in success, and the child may need to try alternate solutions or ask for help. **Creativity**, the third component, requires flexibility of thought and imagination while relying on four-year-olds' increasing willingness to adapt familiar materials and activities in new situations and seek new ways to solve problems. The fourth component, **planning and reflection**, plays an increasingly important role in four-year-olds' development. Their early attempts at trying alternate approaches are often simple trial and error. With increasing practice and support from adults, four-year-olds are able to reflect and think through the steps of their varied approaches to learning and begin to plan solutions with increasing competence.

### Strategies to Support Inclusive Learning Environments

- Use appropriate verbal, visual, and physical cues in interactions and activities to meet the 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.

## II. APPROACHES TO LEARNING

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

E.1.a., E.2.a., E.2.b., A.1.a., F.4.a., F.4.b., G.1.a., G.1.b., G.2.a., G.2.b., G.4.a.

#### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.c.

#### Teacher Tips

Lack of *curiosity* should be investigated further. The child may be shy, or the child may have an illness, or there may be underlying problems. Getting to know the children in the classroom is essential.

#### Environmental Considerations

Include designated spaces for special exhibits, visitors, and events.

#### A. *Eagerness and Curiosity*

##### 1. Shows *curiosity* and is eager to learn new things and have new experiences

Four-year-olds are increasingly curious about their world and *initiate exploration* of their natural and social *environment*, such as family roles, plants, and animals. This interest in new things helps them make sense of the world around them, build a rich *vocabulary*, and begin using new strategies to solve problems.

##### Examples illustrating this standard include:

- *investigating* and experimenting with new materials in activity areas to see how the materials work and what they can do
- sharing ideas by answering questions like “Why does that happen?” and “How can I do that?”
- asking an adult and/or peers for more information
- working with peers, adults, and materials to solve problems
- selecting or requesting their own activity and eagerly participating in all activities
- choosing many ways to explore a special interest (e.g., looking for books about dinosaurs, playing with toy dinosaurs, and drawing pictures about dinosaurs).

##### Supportive Instructional Strategies:

- Make additions and alterations to classroom activities and materials on a regular basis to encourage *curiosity* and promote new ideas.
- Ask open-ended questions and encourage dialogue to promote further questions and deeper understanding by children.
- Further children’s thinking by posing questions that challenge their train of thought.
- Create opportunities by providing materials on a variety of levels of complexity for children to engage with peers, adults, and materials in problem solving.
- Create opportunities to model problem solving by “thinking out loud.”

## II. APPROACHES TO LEARNING

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

C.1.

#### Teacher Tips

Children need space to be alone at times, particularly when encountering problems, and some children need special assistance when transitioning from home to school.

#### Environmental Considerations

Include ample materials, supplies, and equipment for the number of children enrolled, as well as sufficient space to support flexibility and foster smooth transitions.

#### B. Persistence

##### 1. Attends to tasks for a brief period and seeks help when needed

Four-year-olds are developing the *skills* they need to complete tasks, but the ability to stay on task may vary with the activity, the child's individual *temperament*, and age. Attention spans should increase over the course of the year. Four-year-olds may become frustrated when they are unable to solve a problem. However, they are becoming more internally motivated to persist and discover alternative solutions to problems. In addition, they may ask for help from a trusted adult or another child.

#### Examples illustrating this standard include:

- working with a friend to complete a task despite interruptions and distractions (e.g., fit puzzle pieces together or experiment with different sizes of blocks to make a block tower stable)
- continuing to work on self-selected activities that they find difficult
- sustaining or initiating a new activity without the need for external approval
- asking a teacher for help in solving a problem with a friend after attempting to resolve the problem themselves.

#### Supportive Instructional Strategies:

- Offer encouraging statements and suggestions when children are struggling with a problem (e.g. "Try turning the puzzle piece a little and see if it fits," or "You are really working hard to figure that out!").
- Provide ample time for children to engage in activities and play to support longer attention to tasks and opportunities for problem solving (e.g., a minimum of one hour for free choice *center* time).
- Provide opportunities for children to work on activities (e.g., block construction or gardening) over an extended period of time (days or weeks).
- Offer a variety of materials and activities to encourage children to make their own choices based on their individual interests.
- Encourage children to perform routine tasks independently (e.g., hanging up their coats, placing bags in cubbies when arriving at school, putting coats on when going outside).



## II. APPROACHES TO LEARNING

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., D.2.a., D.2.b., D.2.c., E.1.a., E.2.a., E.2.b., F.2.a., F.2.b., F.2.c., F.4.a., F.4.b., G.1.a., G.1.b.

#### V. Cognitive Development and General Knowledge

D.a.1., D.b.2., D.c.1.

#### Teacher Tips

Play is an expression of *creativity* and involves new situations and making new discoveries.

#### Environmental Considerations

Include materials and supplies that children can move around and use in different ways both inside and outside, as well as labeled, consistent storage spaces for materials and supplies so that children and teachers can readily find needed items.

#### C. Creativity

##### 1. Approaches daily activities with *creativity*

Familiar, supportive people and *environments* are comforting to young children as they begin to experiment with new ways of solving problems. *Creativity* is expressed in many ways, including movement, *music*, art, drama, and verbal expression.

##### Examples illustrating this standard include:

- making up roles for themselves and friends in *dramatic play* and using imaginary props to support *dramatic play*
- responding to open-ended questions (e.g. "What would happen if...?" or "What could we...?", adding creative details to a story)
- experimenting with open-ended materials (e.g., recycled objects, fabric, paint, paper, blocks, clay)
- using trial-and-error in problem solving activities (e.g., testing for stability while building a tower using unit blocks)
- using *creative movement* and *music* to express themselves.

##### Supportive Instructional Strategies:

- Provide a variety of open-ended materials (e.g., blank paper, modeling clay, ribbons, *musical* instruments, stencils) and allow children to create instead of replicating a teacher-directed project.
- Observe children carefully as they try to solve problems in order to *scaffold* their development.
- Provide ample time for children to engage in activities so they can try different ways to approach a project.
- Create opportunities for children to role play characters and try on roles of community workers.
- Encourage children to solve problems step-by-step, asking questions in a series (e.g., "What would you do first?" "Then what?").

## II. APPROACHES TO LEARNING

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

F.4.b., G.1.a., G.1.b.

#### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d., C.b.1., D.a.1.

#### Teacher Tips

*Temperament* affects how children approach tasks; some four-year-olds may need support to avoid frustration as they tackle problems.

#### Environmental Considerations

Include writing materials in every area of the classroom and help children document their plans and *reflections*.

#### D. *Planning* and Reflection

##### 1. Shows initial signs of *planning* and learning from experiences

Four-year-old children demonstrate an increasing ability to set goals and develop plans to reach their goals. They begin to organize their actions and materials into steps toward accomplishing a task and follow through with their plans by making choices independently. After completing their task, they are able to reflect on what worked and what did not work. Four-year-olds' everyday experiences help them learn *skills* for *planning* activities and looking back at what has happened in the past. Cooperative play experiences provide opportunities for children to plan together and reflect.

#### Examples illustrating this standard include:

- brainstorming ideas and multiple solutions for a task (e.g., helping the teacher figure out what they need to take with them on a field trip and then share details about the experience afterward)
- responding to guiding questions (e.g., "What would happen if...?"; telling what they plan to build at the block *center* before they start to build at *center* time)
- testing their multiple solutions (e.g., choosing clothes to fit a doll)
- verbalizing the steps to accomplish a task, either before or during the activity (e.g., Telling a friend, "I will be the mommy, you be the daddy, and we are taking our baby to the doctor" in *dramatic play*, as they fill the bird feeder with seeds, saying "First I take the top off...")
- reflecting on and evaluating their experiences during the activity (e.g., after watching their block tower fall over, talking about why the blocks fell and suggesting different size blocks on the bottom; after painting a picture, talking about how the colors mixed).

#### Supportive Instructional Strategies:

- Introduce new equipment and materials before adding them to an interest area and discuss possible uses.
- Include children in *planning* (e.g., a family picnic at school, a Thanksgiving program, what activity they will do during *center* time).
- Provide opportunities for children to discuss, review, and document what they did (e.g., reflect on a field trip, talk about activity choices, document activities in a picture journal).
- During the reflecting process, help children identify the cause and effect relationships in activities such as mixing red and yellow paint (cause) to make orange (effect).
- Allow time during the day for children to make a plan for their activity choices and allow time for children to reflect on the implementation of their plan (e.g., Ask child, "Where do you want to work during *center* time?" "What did you do during *center* time?").



# APPROACHES TO LEARNING GLOSSARY

**center** - area 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**).

**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).

**creativity** - individuality expressed by creating something new or original (e.g., creating a new representation of 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 discovered on the playground).

**dramatic play** - expressive and spontaneous play.

**eagerness** - energy and excitement about learning; wanting to learn (e.g., a child desires to participate in an activity).

**emerging** - initial stages of a developing skill.

**environment** - the circumstances, objects, or conditions by which one interacts with and is surrounded.

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

**initiate** - to begin something, taking the first step.

**investigating** - observing or inquiring in detail.

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**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 mental preparation and problem-solving in order to accomplish an act (e.g., a child tells the teacher what he/she will do during **center** time).

**reflection** - the process of reviewing and critiquing one's own actions or one's own work (e.g., the child shares with the teacher what he/she did during **center** time).

**scaffolding** - the provision of sufficient support to promote learning when concepts and skills are being first introduced to students (e.g., modeling, giving clues, asking questions, and providing verbal prompts).

**skills** - the ability to use knowledge effectively and readily in performance, the ability to transform knowledge into action.

**vocabulary** - all of the words of a language. There are two types of vocabulary: receptive and expressive.

# III. SOCIAL AND EMOTIONAL DEVELOPMENT



III. SOCIAL AND EMOTIONAL  
DEVELOPMENT



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# OVERVIEW OF SOCIAL AND EMOTIONAL DEVELOPMENT STANDARDS

## A. Self-Regulation

### a. Affective

1. Demonstrates growing autonomy and independence, indicated by increasing self-care and willing participation in daily routines, when given a consistent and predictable environment
2. Begins to recognize, then internally manage and regulate, the expression of emotions both positive and negative, with teacher support and multiple experiences over time

### b. Life/Adaptive

1. Follows simple rules, agreements, and familiar routines with teacher support
2. Begins to use materials with increasing care and safety
3. Adapts to transitions with increasing independence

## B. Relationships

### a. Self

1. Shows increasing confidence in their own abilities

### b. Peers

1. Interacts with and develops positive relationship with peers
2. Develops special friendships
3. Shows care and concern for others

### c. Adults

1. Develops positive relationships and interacts comfortably with familiar adults

## C. Social Problem Solving

1. Shows developing ability to solve social problems with support from familiar adults
2. Develops an initial understanding of bullying, with support from familiar adults



# SOCIAL AND EMOTIONAL DEVELOPMENT

## INTRODUCTION

Social and **emotional readiness** is critical to a child's successful kindergarten transition, early school success, and 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** are rooted in relationships with adults. Adults who are capable of creating positive relationships with children provide a secure foundation from which children can master new learning challenges. Positive relationships with adults also lead to positive relationships with peers as four-year-olds are developing important **interpersonal skills**. Four-year-olds 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.

Four-year-olds develop social and emotional **skills** through **self-regulation**, **relationships**, and **social problem solving**, the three components of social and emotional development. The first component, **self-regulation**, is the capacity to tolerate the sensations of distress that accompany an unmet need and enables four-year-olds as well as adults to engage in mindful, intentional, and thoughtful behaviors. It allows children to handle typical daily stressors (e.g., hunger, fatigue, the noise and activity levels of large group care, frustration from not getting their way, separation from parents) in progressively healthier ways with guidance from a self-regulated adult. **Self-regulation** involves the child's ability to recognize his or her own emotions, label them accurately, and respond to experiences with an appropriate range of immediate and delayed emotions. There are two areas included in this component: **affective** and **life/adaptive**. The first area, **affective**, is related to factors such as emotional regulation, child motivation, attitudes, perceptions, and values. **Life/adaptive**, is related to age-appropriate behaviors necessary for children to move comfortably in a variety of social settings and to function safely and appropriately in daily life. **Self-regulation** allows both children and adults to regulate their thoughts, feelings, and actions in order to be contributing, functioning members of a social group.

The second component, **relationships**, guides how four-year-olds learn about themselves, others, and the world and includes three areas: self, peers, and adults. The first area, self, relates to self-confidence in developing abilities. The second area is peers. Relationships with peers increase during prekindergarten, as four-year-olds 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 third area is adults. As relationships with familiar adults retain their importance, four-year-olds increasingly ask questions, keep conversations going, seek assistance appropriately, and recognize feelings.

**Skills** associated with the third component, **social problem solving**, are evidenced as four-year-olds begin to use physical means of solving problems less often and develop more positive strategies (e.g., waiting, taking turns, sharing, expressing needs, listening to the needs of others, negotiating, and seeking adult help). Four-year-olds begin to develop an initial awareness of what **bullying** means and anti-**bullying** strategies, with teacher support over time. Children are more likely to speak up for peers when they see an

injustice (e.g., mistreatment or **bullying**), if supportive adults are consistently modeling effective strategies to help four-year-olds solve their social problems.

### Strategies to Support Inclusive Learning Environments

- Separate **skills** and behaviors into smaller steps.
- Teach and model specific appropriate social **skills**.
- 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.
- Allow children with special needs to hold a stuffed animal or carry a fidget toy during large group time.
- Create class-made books that demonstrate and teach class routines for children with challenges or special needs.
- Create class-made books that demonstrate and teach class rules for children with challenges or special needs.

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.6., A.8., B.1.

##### II. Approaches to Learning

A.1.

##### III. Social and Emotional Development

A.b.1., A.b.2., B.a.1.

##### IV. Language, Communication, and Emergent Literacy

A.2.a., C.1.a., E.1.a.

##### V. Cognitive Development and General Knowledge

C.a.1., C.d.1.

#### Teacher Tips

Providing a variety of classroom jobs helps to create a predictable *environment*, while encouraging children to participate in routine classroom activities.

#### Environmental Considerations

Post a pictorial daily schedule at the children's eye-level.

#### A. *Self-Regulation*

##### a. *Affective*

1. Demonstrates growing *autonomy* and independence, indicated by increasing *self-care* and willing participation in daily routines, when given a consistent and predictable *environment*

Four-year-olds are beginning to understand themselves as individuals within a community. They are able to have an active role in caring for themselves and in interactions throughout the day. The teacher must actively support an predictable *environment* that allows children to plan and follow through with daily activities, knowing what to expect next.

#### Examples illustrating this standard include:

- participating easily in routine activities (e.g., meal time, snack time, rest time)
- engaging in personal care routines (e.g., washing hands after using the restroom), sometimes with a reminder, to the maximum extent possible (e.g., child with special health care needs)
- showing joy and excitement about daily activities.

#### Supportive Instructional Strategies:

- Display clear visual reminders for all routines in the area in which they are used (e.g., lining up routine is posted by the door; hand washing routine is posted by the sink).
- Engage children in *planning* routines.
- Teach and help children practice *self-care* routines (e.g., washing hands, toileting, zipping and buttoning) just like you would any other skill.

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.6.

##### II. Approaches to Learning

A.1.

##### III. Social and Emotional Development

A.b.3., B.a.1.

##### IV. Language, Communication, and Emergent Literacy

A.1.a., E.1.a., E.3.b.

##### V. Cognitive Development and General Knowledge

D.a.3., D.b.3., D.c.3., D.d.3.

#### Teacher Tips

When teachers provide labels for emotions this allows children to express their feelings using the same **vocabulary** (e.g., "I feel really happy that it is sunny today after a whole week of rain!").

#### Environmental Considerations

Display pictures and books that show a variety of emotions. Provide puppets that children may use to role-play or express their emotions.

#### A. *Self-Regulation*

##### a. *Affective*

2. Begins to recognize, then internally manage and regulate, the expression of emotions both positive and negative, with teacher support and multiple experiences over time

Children are beginning to identify their own emotions and to recognize the emotions of others. They can calm themselves after having strong emotions, with teacher support (e.g., Teachers lead active calming techniques and visually display them for the children to use.).

#### Examples illustrating this standard include:

- showing ability to control impulses (e.g., stopping and listening to instructions before jumping into activity), with teacher support
- modifying behavior to different settings (e.g., adapts noise and movement level to indoor or outdoor **environment**)
- demonstrating ability to accurately identify and label own emotions (e.g., "I am so excited! Today is my birthday."), with teacher support.

#### Supportive Instructional Strategies:

- Model appropriate expression of emotions (e.g., "I'm feeling frustrated because I can't find the book I wanted to read at group time. I'm going to take three deep breaths to calm down, and then choose a different book so we can continue.>").
- Help children express their feelings (e.g., as they play with others, pretend with toys, listen to stories).
- Identify what triggers each child's emotional state (e.g., happy or frustrated), what he or she does well, and what he or she needs help doing.
- Create a "safe area" (e.g., a beanbag or big floor pillow) that a child may use for 10-15 minutes, as needed, and provide visual steps for regaining emotional control. Teach the behavioral expectations for the "safe area" like you would for all other learning **centers**.



## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

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

##### III. Social and Emotional Development

A.b.3.

##### IV. Language, Communication, and Emergent Literacy

A.1.a., A.2.a.

##### V. Cognitive Development and General Knowledge

C.d.1.

#### Teacher Tips

Children may revert to toddler behavior when feeling shy or upset.

#### Environmental Considerations

Include sufficient materials, equipment, and space to support classroom routines and ensure that the classroom arrangement facilitates adherence to classroom rules and routines (e.g., the block area is protected from high-traffic areas that might result in children accidentally knocking over block structures; the reading *center* is placed in a quieter area of the room).

#### A. *Self-Regulation*

##### b. Life/Adaptive

#### 1. Follows simple rules, agreements, and familiar routines, with teacher support and multiple experiences over time

Simple rules based on safety and familiar routines help four-year-olds engage positively in activities and experiences. Teachers can lay a good foundation for rules by modeling, encouraging, supporting, and reinforcing agreements and actively teaching routines. Having agreements with young children allows them to internalize what is it to make a promise to the group and practice keeping it with support and guidance.

#### Examples illustrating this standard include:

- predicting what comes next in the day (e.g., rest time, snack time, dismissal)
- following simple rules without reminders (e.g., hands are for helping)
- explaining simple rules and routines to others.

#### Supportive Instructional Strategies:

- Keep classroom rules and routines positive, simple, short, and visual. Rules that are based on the concept of safety (e.g., “helpful” or “hurtful”) are more meaningful for young children.
- Model and practice daily routines (e.g., arrival, transitions, dismissal) just like you would any other skill (using visual cues, reminders, advance warning, and picture schedules).
- Engage children in setting appropriate rules and *planning* routines.
- Share information about rules and routines with families; discuss and reconcile differences about rules, as needed.

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

G.1.a.

V. Cognitive Development and General Knowledge

B.a.1., C.d.1.

#### Teacher Tips

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.").

#### Environmental Considerations

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

#### A. *Self-Regulation*

##### b. Life/Adaptive

#### 2. Begins to use materials with increasing care and safety

Four-year-olds are increasingly able to use materials appropriately and take care of their *environment*. They can care for materials and living things (e.g., plants or class pets) with increasing independence. This is especially true when teachers maintain consistent rules and routines and model how to take care of things in the classroom.

#### Examples illustrating this standard include:

- rolling all of the tricycles to the far end of the track and placing helmets in a box when cleaning up the playground
- feeding the class pet(s) and watering plants
- demonstrating knowledge and increasing ability of how to use materials purposefully, safely, and respectfully (e.g., reminding a peer that walking around with scissors is dangerous)
- returning dress up clothes and props to the correct place when cleaning up after *center* time.

#### Supportive Instructional Strategies:

- Introduce new materials and show children how to use them and where they will be stored.
- Model safe and respectful use of materials and equipment.
- Provide sufficient time in the daily schedule for clean-up routines.
- Assist children with using materials, as needed (e.g., a child with less experience or developmental delay may need more assistance).



## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

#### A.b.1.

#### IV. Language, Communication, and Emergent Literacy

#### A.1.a.

#### Teacher Tips

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

#### 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.

#### A. *Self-Regulation*

#### b. Life/Adaptive

#### 3. Adapts to transitions with increasing independence

Four-year-olds need varying levels of adult support to manage transitions, though over the course of the year they become better able transition independently between activities and settings.

#### Examples illustrating this standard include:

- easily separating from family member, teacher, or caregiver, with teacher support as needed
- returning to their place on the rug after dancing during a large group time activity
- cleaning up the playground and preparing to go inside when the teacher rings the bell, with little or no resistance.

#### Supportive Instructional Strategies:

- Use transition signals to help children manage changes (e.g., singing a clean-up song, ringing a bell to indicate that clean up will begin in five minutes, playing calm *music* when it's time for rest).
- Provide advance notice and anticipate how individual children will respond when changes occur in the schedule or routine (e.g., children may need individual notice or guidance for transitions).
- Create classroom helpers or jobs to involve children in transition process (e.g., line leader, mat helper, bell ringer).
- Allow children additional time to transition from one activity to another when needed.

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.b.3.

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., C.2.c., D.1.a., D.1.b., E.1.a., E.2.a., E.2.b., E.3.a., E.3.b., E.3.c.

#### Teacher Tips

Purposeful room arrangement can increase the children's confidence as they understand how to independently explore the learning *environment*.

#### Environmental Considerations

Display visuals that allow children to independently participate in classroom activities and explore the learning *environment* (e.g., *center* signs, pictorial daily schedule, attendance, chart).

#### B. Relationships

##### a. Self

##### 1. Shows increasing confidence in their own abilities

Four-year-olds come to school with an *emerging* sense of self and an increasing awareness of their personal characteristics and preferences. Most four-year-olds readily participate in classroom activities. They are also eager to make choices, explore the classroom *environment*, and relate to others appropriately.

#### Examples illustrating this standard include:

- identifying personal characteristics and preferences (e.g., the color of their hair or their favorite food)
- selecting activities to engage in
- being comfortable sharing how things are done in home or other *environments* (e.g., "At home we hang our clothes on the clothesline.")
- relating appropriately to others by "using their words" (e.g., "I don't like it when you grab things. If you ask first, I will let you have a turn."), with teacher support.

#### Supportive Instructional Strategies:

- Allow children to opt out of some activities.
- Support and *scaffold* the children as they are learning new concepts and *skills*.
- Celebrate accomplishments with specific feedback.



## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

A.c.1., B.b.2., B.b.3.

#### IV. Language, Communication, and Emergent Literacy

E.1.a., E.2.a., E.2.b., E.3.a., E.3.b., E.3.c., F.4.a.

#### Teacher Tips

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

#### Environmental Considerations

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

#### B. Relationships

##### b. Peers

##### 1. Interacts with and develops positive relationships with peers

As four-year-olds' communication increases and perspective-taking *skills* begin to develop, they are improving their social *skills*, developing positive relationships, and engaging in peer groups. Peers are often of the same gender but not always. Four-year-olds are also beginning to use group entry and exit abilities appropriately.

#### Examples illustrating this standard include:

- engaging in activities with peers (e.g., riding tricycles or *dramatic play*)
- understanding the difference between helpful and hurtful ways to get something or meet a need
- asking to join a group.

#### Supportive Instructional Strategies:

- Teach children how to be helpful instead of hurtful in difficult situations (e.g., "What could you do to be helpful instead of hurtful when someone calls you a name?").
- Teach children group entry *skills* using a variety of formats (e.g., verbal gestures, role-play) and how they should respond when peers want to join their activity (e.g., "Only four people can play in this *center* so you have to wait.").
- Recognize power positions in peer groups (e.g., Do the group leaders include and exclude particular students?).
- Address power positions in peer groups. (e.g., Allow for free group choice and also teacher-chosen groups to minimize the exclusion of particular children. Teach group leaders *skills* for including other children and peer group members how to say, "No," to the group leader or how to leave the group to play with other children.).

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.b.1., B.b.3.

#### Teacher Tips

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

#### Environmental Considerations

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

#### B. Relationships

##### b. Peers

#### 2. Develops special friendships

Four-year-olds continue to develop their friendship *skills*. They more frequently *initiate* activities with children they consider peers and play in complex ways. *Empathy* and caring for others takes place when children have the opportunity to develop friendships. Children who become friends are better at initiating and sustaining interactions and resolving conflicts with each other.

#### Examples illustrating this standard include:

- talking with a peer to plan their play at the sand table
- noticing that a friend needs help putting away the blocks and going to help
- exhibiting appropriate behavior when placed in a group by the teacher (e.g., non-peers, mixed gender, mixed abilities)
- playing cooperative games with one or more friends.

#### Supportive Instructional Strategies:

- Teach children how to make and be a friend.
- Role-play helpful and hurtful situations (e.g., taking turns, expressing frustration with a friend, asking someone to move).
- Build the classroom community based on cooperative activities and principles.



## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

A.c.1., B.b.1., B.b.2.

#### IV. Language, Communication, and Emergent Literacy

D.1.a., D.1.b., E.2.a., E.2.b.

#### Teacher Tips

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.

#### Environmental Considerations

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

#### B. Relationships

##### b. Peers

#### 3. Shows care and concern for others

Four-year-olds continue to develop *empathy*, care and concern for those around them. They are increasingly able to understand the feelings of others and are developing *skills* that allow them to respond to others in caring and helpful ways. Their cognitive development and social experience contributes to this increase in caring behaviors, but some four-year-olds may still need help becoming aware of and identifying the feelings and emotions of others.

#### Examples illustrating this standard include:

- recognizing when a peer is upset and trying to comfort him/her (e.g., "It's okay; I'll be your friend until your daddy comes back," while patting the peer on the back.)
- helping a classmate with a physical disability line up to go outside
- labeling emotions on peers' faces (e.g., "You look sad.")
- going to the teacher for help when a peer is hurt.

#### Supportive Instructional Strategies:

- Acknowledge and accept children's range of emotions (e.g., "You were angry when you hit Charles, but he needs you to use words so that he can understand how you feel.>").
- Model *empathy* and verbalize while modeling (e.g., "I can see that Jasmine is sad, so I'm going to comfort her.>").
- Teach children how to recognize emotions through the posture and facial expressions of peers.
- Recognize helpful and kind interactions among the children and acknowledge how the behavior helped someone else (e.g., "You shared your blue crayon with Aaron so he could color the sky. That was helpful.>").

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.b.3.

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., C.2.c., D.1.a., D.1.b., E.1.a., E.2.a., E.2.b., E.3.a., E.3.b., E.3.c.

#### Teacher Tips

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.

#### Environmental Considerations

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

#### B. Relationships

##### c. Adults

#### 1. Develops positive relationships and interacts comfortably with familiar adults

Four-year-olds continue to develop close social relationships with adults that are significant to them. Secure attachment with at least one teacher supports children as they begin experimenting with independence and initiative, giving them self-confidence to take risks and try new things. Four-year-olds need help learning how to interact when meeting new adults.

#### Examples illustrating this standard include:

- entering the classroom and greeting the teacher with increasing ease
- expressing affection to a teacher or caregiver with hugs or words and accepting affection in return
- cooperating with an adult who offers individualized instruction (e.g., a therapist)
- going to a specific teacher for assistance when upset or if problem-solving help is needed
- accepting guidance and redirection from adults with whom they have a mutually affectionate relationship.

#### Supportive Instructional Strategies:

- Introduce children to other adults in the facility (e.g., the cook, the principal or director, the nurse).
- Adults should make an effort to converse regularly with individual children and help each child in the classroom to build a secure attachment with at least one adult.
- Spend one-on-one time connecting with children throughout the week and let each child know that you are happy that he or she is a member of your classroom.
- Greet each child by name every morning and say goodbye to each child at the end of the day.



## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.1.

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., C.2.c., D.1.a., D.1.b., E.1.a., E.2.a., E.2.b., E.3.a., E.3.b., E.3.c.

#### Teacher Tips

When children have established relationships with familiar adults, they become better at working out conflicts independently.

#### 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.

#### C. Social Problem Solving

##### 1. Shows developing ability to solve social problems with support from familiar adults

Four-year-olds are becoming better at working out conflicts on their own, but still need a good deal of help from trusted adults. They may show physical (e.g., hitting, pushing) or verbal aggression, or exclude peers when they have conflicts. As language and thinking *skills* continue to develop, however, four-year-olds are increasingly able to use words, negotiate, and offer ideas for solutions to their problems. Modeling how to compromise or share is an effective strategy for helping four-year-olds solve their social problems.

#### Examples illustrating this standard include:

- talking with a peer to decide who will get the first turn, with teacher support and multiple experiences over time
- waiting for a peer to finish speaking before talking in conversations
- scooting over during large group time when a peer is sitting too close
- calming down before attempting to solve a problem, with teacher support and multiple experiences over time
- using helpful words to express frustration and anger (e.g., "I don't like it when you get in front of me on the slide while I'm waiting for my turn. Please wait your turn.").

#### Supportive Instructional Strategies:

- Role-play helpful and hurtful situations (e.g., taking turns, sharing, expressing frustration with a friend, asking someone to move).
- Teach *initiation skills* so children have multiple strategies when they want to play with others or join a group.
- Teach children how to *initiate* common-ground activities with peers (e.g., "Let's play with the blocks." "Do you want to paint?").
- Identify similarities with other children (e.g., "We have on dinosaur shirts." "I have shoes that tie too." "We both like to play in the sand.").
- Observe what the group is doing and add something to the play (e.g., "I could be the elephant. You don't have one in your zoo.").
- Ask again (e.g., most play episodes are short so teach children to ask again if they can play), and use the *initiation skills* learned.
- Become conscious of competitive events that pit children against each other for adult attention or rewards and stop relying on these for compliance (e.g., Adults should stop saying, "The quietest table will get to line up first." "The children being good will get a sticker." "Let's see who can clean their space up the best for Mrs. Mahoney.").

## III. SOCIAL AND EMOTIONAL DEVELOPMENT

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.6.

##### III. Social and Emotional Development

A.a.1., B.a.1., B.b.1.

##### IV. Language, Communication, and Emergent Literacy

E.1.a., E.2.a., E.2.b.

##### V. Cognitive Development and General Knowledge

C.d.1., C.d.2.

#### Teacher Tips

Develop and model mutually respectful relationships with the families of children in your classroom and colleagues at work.

#### Environmental Considerations

Include books, puppets, and materials that may be used to develop an initial understanding of *bullying*.

#### C. Social Problem Solving

##### 2. Develops an initial understanding of *bullying*, with support from familiar adults

Through role-playing and teacher-led discussions over time, children begin to develop an initial understanding of *bullying* (e.g., the roles of the *bully*, the *target*, and the *bystander*), with teacher support and multiple experiences over time.

##### Examples illustrating this standard include:

- explaining to a peer why *tattling* is not helpful (e.g., "It's not nice to try and get somebody in trouble.")
- *reporting* to an adult when he or she sees a peer in danger (e.g., "Sally keeps pulling Sarah's hair and making her cry.")
- Speaking up for peers when they see an injustice (e.g., mistreatment or *bullying* of others) by offering assistance and teaching each other how to be helpful.

##### Supportive Instructional Strategies:

- Discuss *bullying* behavior (e.g., physical, verbal, emotional) with class and teach anti-*bullying* strategies (e.g., large group, small group, one-on-one).
- Role-play the roles of the *bully*, the *target*, and the *bystander*.
- Teach the difference between *tattling* and *reporting*.

# SOCIAL AND EMOTIONAL DEVELOPMENT

## GLOSSARY

**affective** - related to factors such as emotional regulation, child motivation, attitudes, perceptions, and values.

**autonomy** - independence.

**bully** - child who repeatedly commits negative acts with a conscious intent to hurt another child.

**bullying** - repeated negative act(s) committed by one or more children with a conscious intent to hurt another child. These negative acts can be verbal (e.g., making threats, name-calling), psychological (e.g., excluding children, spreading rumors), or physical (e.g., hitting, pushing, taking a child's possessions).

**bystander** - anyone, other than the **bully** and victim, who is present during a **bullying** incident.

**center** - area 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**).

**dramatic play** - expressive and spontaneous play.

**emerging** - initial stages of a developing skill.

**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.

**environment** - the circumstances, objects, or conditions by which one interacts with and is surrounded.

**initiate** - to begin something, taking the first step.

**initiation skills** - socially acceptable ways to enter a group that is already engaged, such as mentioning a common interest (e.g., "I like cars too. Can I play race track with you?").

**interpersonal skills** - the ability to get along with others.

**life/adaptive** - age-appropriate **skills** and behaviors necessary for children to move comfortably in a variety of social settings and to function safely and appropriately in daily life.

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**planning** - the process of mental preparation and problem-solving in order to accomplish an act (e.g., a child tells the teacher what he/she will do during **center** time).

**reporting** - trying to help keep a child or children out of danger because they may get hurt or they are being hurt (e.g., target/victim of a **bully**).

**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).

## SOCIAL AND EMOTIONAL DEVELOPMENT

### GLOSSARY (continued)

**self-care** - the capacity to take care of personal needs (e.g., drinking from a cup, getting dressed, washing hands, making choices, toileting independently).

**self-regulation** - a deep internal mechanism that enables four-year-olds as well as adults to engage in mindful, intentional, and thoughtful behaviors. It involves children's ability to recognize their own impulses and respond to experiences with an appropriate range of immediate and delayed emotions.

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

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

**target** - the victim or focus of a **bully**.

**tattling** - giving information to an adult to try to get another child or children in trouble when they aren't hurting themselves or others.

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



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## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY



IV. LANGUAGE, COMMUNICATION  
& EMERGENT LITERACY



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# OVERVIEW OF LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY STANDARDS

## A. Listening and Understanding

1. Increases knowledge through 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.

2. Follows multi-step directions.

Benchmark a: Child achieves mastery of two-step directions and usually follows three-step directions, with teacher support and multiple experiences over time.

## B. Speaking

1. Speech is understood by both a familiar and an unfamiliar peer or adult

Benchmark a: 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 across many topic areas and demonstrates a wide variety of words and their meanings within each area (e.g., world knowledge: names of body parts, feelings, colors, shapes, jobs, tools, plants, animals and their habitats, and foods; words that describe: adjectives, verbs, and adverbs).

Benchmark b: Child has mastery of functional and organizational language of 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 including disciplinary words, (e.g., science, social studies, math, and literacy) many more than he or she routinely uses (receptive language).

2. Shows increased 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).

Benchmark c: Child uses a variety of word meaning relationships (e.g., part-whole, object-function, object-location).

## 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.



# OVERVIEW OF LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY STANDARDS (continued)

## D. Sentences and Structure (continued)

### 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, sticks to the topic, and clearly communicates intended meaning.

## E. Conversation

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

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

### 2. Initiates, ask 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, answers questions by 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, maintaining a comfortable distance in conversation).

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

## F. Emergent Reading

### 1. 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 interacts appropriately with books and other materials in a print-rich environment.

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

# OVERVIEW OF LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY STANDARDS (continued)

## F. Emergent Reading (continued)

### 2. Shows age-appropriate phonological awareness

Benchmark a: Child can distinguish individual words within spoken phrases or sentences.

Benchmark b: Child combines words to make a compound word (e.g., “foot” + “ball” = “football”).

Benchmark c: Child deletes a word from a compound word (e.g., “starfish” – “star” = “fish”).

Benchmark d: Child combines syllables into words (e.g., “sis” + “ter” = “sister”).

Benchmark e: Child can delete a syllable from a word (e.g., “trumpet” – “trum” = “pet” or “candy” – “dy” = “can”).

Benchmark f: Child combines onset and rime to form a familiar one-syllable word with and without pictorial support (e.g., when shown several pictures, and adult says /c/ + “at,” child can select the picture of the cat).

### 3. Shows alphabetic knowledge

Benchmark a: Child recognizes almost all letters when named (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 an uppercase or lowercase letter, can accurately say its name).

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

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

### 4. Demonstrates comprehension of text read aloud

Benchmark a: Child retells or reenacts a 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...?” “How would you feel if you...?”).

## G. Emergent Writing

### 1. Shows motivation to engage in written expression

Benchmark a: Child demonstrates understanding of the connections among their own ideas, experiences, and written expression.

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

# OVERVIEW OF LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY STANDARDS (continued)

## G. Emergent Writing (continued)

2. Uses scribbling, letter-like shapes, and letters that are clearly different from drawing to represent thoughts and ideas

Benchmark a: Child independently uses letter-like shapes or letters to write 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.

3. Demonstrates age-appropriate ability to write letters

Benchmark a: Child independently writes some letters on request.

4. Demonstrates knowledge of purposes, functions, and structure of written composition

Benchmark a: When writing or dictating, child uses appropriate writing conventions (e.g., a letter starts with “Dear”; or a story with a beginning, middle, and end).

# LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY INTRODUCTION

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**. Four-year-olds who can readily describe an experience, ask for help, and express excitement and **curiosity** adapt more easily to the challenges, expectations, and new situations in the classroom setting in prekindergarten and beyond.

Four-year-olds advance their language and communication development through learning opportunities in seven primary components: **listening, speaking, vocabulary, sentences and structure, conversation, emergent reading, and emergent writing**. **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, four-year-olds expand their use of complete sentences and demonstrate growing mastery of correct structure in the way they arrange the words they use to communicate. Four-year-olds also 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 four-year-olds, the prekindergarten program may be the first time 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 prekindergarten experience also allows four-year-olds 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.

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 four-year-olds, especially those who have been exposed to reading, writing, and various forms of print in their home **environments**. Four-year-olds 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**, children can learn much more about the purposes and concepts of written language and about the sounds and letters that combine to form print. Four-year-olds learn best through experiences that are meaningful and interesting to them and through repetition over time, rather than through drill.

**Emergent literacy** includes the development of the knowledge, conceptual understanding, and **skills** that form the basis for later reading and writing. In the sixth component, **emergent reading**, four-year-olds 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. Four-year-olds 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 four-year-olds 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 seventh component, four-year-olds 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.

Four-year-olds' knowledge of the structure of written composition is demonstrated in their dictated stories and their own beginning forms of written expression.

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 prekindergarten 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 non-verbal, have language delays, or are English language learners.
- Provide alternate versions of texts (e.g., audiobooks, 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.
- Encourage and welcome support personnel (e.g., speech therapist) to work in the classroom modeling instructional strategies and problem-solving for the child's teachers.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.3., A.5.

##### III. Social and Emotional Development

A.b.1., A.b.3.

##### IV. Language, Communication, and Emergent Literacy

E.3.a., E.3.b., E.3.c., F.1.a., F.1.b., F.1.c., F.2.a., F.2.b., F.2.c., F.2.d., F.2.e., F.2.f., F.4.a., F.4.b.

##### V. Cognitive Development and General Knowledge

D.a.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Listening and Understanding

##### 1. Increases knowledge through listening

Four-year-olds are eager to communicate with others. During the prekindergarten year, their listening *skills* are becoming further refined through experiences in the classroom setting, which can include peer interactions one-on-one or in small groups, teacher-child interactions, and large group activities (e.g., large group time). Over the course of the prekindergarten year, with teacher support, the children’s ability to sustain a conversation and listen for longer periods should increase.

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

#### Examples illustrating this benchmark include:

- responding to a friend appropriately (e.g., Jeremy says, “Let’s put the gorillas in the jungle next.” Addie responds, “Yeah, I think the gorillas should live in this part over here.”)
- singing/chanting during group time and adding hand and body motions to the song/chant at the appropriate time
- acting appropriately in response to a game (e.g., Simon Says)
- providing ideas relevant to context, when the teacher asks “What will happen next?” while reading a book during large group time.

#### Supportive Instructional Strategies:

- Ask children *recall questions* and *expansion questions* during Show and Tell, *read alouds*, and similar large group discussions about their experiences.
- Ask children “who”, “what”, “where”, and “why” questions during shared reading.
- Engage in daily conversations with children on themes and *content*-related topics or in social conversations where children take multiple turns listening and responding.
- Create an *environment* where teachers and children listen attentively to all ideas expressed.
- Use props and modeling to demonstrate and reinforce active listening (e.g., talking stick, giant ear prop).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.3., B.1.

##### III. Social and Emotional Development

A.b.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Listening and Understanding

##### 2. Follows multi-step directions

The group life of preschool and later school years requires that young children be able to listen to, understand, and follow directions. As they develop these *skills*, four-year-olds become more independent and need less individual guidance from adults.

**Benchmark a:** Child achieves mastery of two-step directions and usually follows three-step directions, with teacher support and multiple experiences over time.

#### Examples illustrating this benchmark include:

- following directions for washing hands (e.g., wet hands, apply soap, scrub, rinse.)
- “reading” and following directions for getting a snack (e.g., a Rebus chart that indicates each child should get one napkin, 11 pretzels, and two pieces of cheese)

#### Supportive 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 learning activities (e.g., “Make a *pattern* with the beads, copy it one time on the same string, and show your *pattern* to me.”)
- 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).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1.

##### IV. Language, Communication, and Emergent Literacy

F.2.a., F.2.b., F.2.c., F.2.d.,  
F.2.e., F.2.f., F.4.a., F.4.b.

#### Teacher Tips

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

#### Environmental Considerations

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

#### B. Speaking

##### 1. Speech is understood by both a familiar and an unfamiliar peer or adult.

Children's language becomes more understandable through experience talking and interacting with peers and teachers. With experience, four-year-olds typically refine their *articulation* and grammar, applying rules of language.

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

#### Examples illustrating this benchmark include:

- showing willingness and desire to talk with classmates and teachers, without showing frustration
- being understood by the teacher, parents, and peers
- being understood by other individuals who do not regularly interact with the child.

#### Supportive Instructional Strategies:

- Model clear speech at a comfortable pace (not too fast or too slow) and an easily heard volume inside and outdoors.
- Encourage children to use language when making requests, rather than only pointing or gesturing (e.g., ask the child "Do you want milk or orange juice?" to encourage the child to use language to express his/her wants or needs).
- When children mispronounce a word or speech sound, repeat back to them using clear and correct pronunciation. (e.g., "You would like to paint next?").

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.5.

##### II. Approaches to Learning

C.1.

##### III. Social and Emotional Development

A.c.1., C.1.

##### IV. Language, Communication, and Emergent Literacy

G.2.a., G.2.b., G.2.c., G.2.d., G.2.e., G.2.f., G.3.a., G.3.b., G.3.c., G.3.d., G.4.a., G.4.b., G.3.a., G.4.a.

##### V. Cognitive Development and General Knowledge

A.a.4., A.d.1.d., A.e.1.a., A.e.1.b., A.e.3., A.f.3.a., A.f.3.b., A.f.3.c., B.a.2., C.a.1., C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

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

#### C. Vocabulary

##### 1. Shows an understanding of words and their meanings

Four-year-olds develop their **vocabulary** through a wealth of opportunities as they interact with their families, teachers, peers, and the environment. Children's interactive experiences in all settings provide opportunities to practice using their new **vocabulary** and applying these new words in appropriate ways.

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

#### Examples illustrating this benchmark include:

- following directions that use descriptive words (e.g., run fast, draw a big *circle*, eat slowly)
- uses appropriate labels to describe a classroom activity (e.g. cooking, art activity, pretending to be a veterinarian)
- describing a feeling to a friend (e.g., "I was so angry that I felt like a volcano erupting!").

#### Supportive Instructional Strategies:

- Provide and read to children a variety of concept-related books (e.g., farm animals, vegetables, the body, fiction and nonfiction).
- Add new words to children's **vocabulary** by using a synonym for a commonly used word.
- Describe children's actions with varied descriptive words.
- Use puppets and props to model expressions of emotions.
- Provide daily experiences that introduce new **vocabulary** (e.g., demonstrate the concept of stability and use the word when discussing how to keep block structures from falling down).
- 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).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.5.

##### II. Approaches to Learning

C.1.

##### III. Social and Emotional Development

A.c.1., C.1.

##### IV. Language, Communication, and Emergent Literacy

F.2.a., F.2.b., F.2.c., F.2.d.,  
F.2.e., F.2.f., F.3.a., F.3.b.,  
F.3.c., F.3.d., F.4.a., F.4.b.,  
G.3.a., G.4.a.

##### V. Cognitive Development and General Knowledge

A.a.3.a., A.a.3.b., A.a.3.c.,  
A.a.6.a., A.e.1.a., A.e.1.b.,  
A.e.3., A.f.3.a., A.f.3.b., A.f.3.c.,  
B.a.2., C.a.1., C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

Fill the classroom with a wide variety of objects and pictures of objects and actions related to new **vocabulary** words, by adding and alternating materials as appropriate.

#### C. Vocabulary

##### 1. Shows an understanding of words and their meanings

Four-year-olds develop their **vocabulary** through a wealth of opportunities as they interact with their families, teachers, peers, and the **environment**. Children's interactive experiences in all settings provide opportunities to practice using their new **vocabulary** and applying these new words in appropriate ways.

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

#### Examples illustrating this benchmark include:

- following teacher's directions when listening to **music** (e.g., "Put the scarf over your head, then move it behind you.")
- understanding directions given at **center** time to identify which items are the same and which are different
- retelling what they heard or pointing to appropriate pictures

#### Supportive Instructional Strategies:

- Provide directions to children using very specific language for locations, sizes, shapes, and relationships (e.g., "Look for the big red teddy bear inside the cabinet.").
- Play Simon Says and scavenger hunt games using specific location, action, and descriptor words (e.g., "Find two blocks that are the same and one that is different.").
- Include language about position and descriptive characteristics of things and actions when interacting with children or commenting on their play (e.g., "Look at the ladybug on top of the leaf.").
- Read both fiction and non-fiction books that contain **functional** and **organizational language**.
- Play games indoors and outdoors using positional words. (e.g., "Hold the parachute over your head." "Stand on top of the scarf.").

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.5.

##### II. Approaches to Learning

C.1.

##### III. Social and Emotional Development

A.c.1., C.1.

##### IV. Language, Communication, and Emergent Literacy

F.2.a., F.2.b., F.2.c., F.2.d.,  
F.2.e., F.2.f., F.3.a., F.3.b.,  
F.3.c., F.3.d., F.4.a., F.4.b.,  
G.3.a., G.4.a.

##### V. Cognitive Development and General Knowledge

A.a.2.a., A.a.3.a., A.a.3.b.,  
A.a.3.c., A.a.4., A.d.1.d.,  
A.e.1.a., A.e.1.b., A.e.3., B.a.2.,  
C.a.1., C.a.3.

#### Teacher Tips

Conversing with children and providing interactive reading of high-quality children's literature are two research-based techniques for increasing children's **vocabulary**.

#### Environmental Considerations

Provide many quality children's books and reading spaces, with opportunities in the schedule to use them.

#### C. Vocabulary

##### 1. Shows an understanding of words and their meanings

Four-year-olds develop their **vocabulary** through a wealth of opportunities as they interact with their families, teachers, peers, and the **environment**. Children's interactive experiences in all settings provide opportunities to practice using their new **vocabulary** and applying these new words in appropriate ways.

**Benchmark c:** Child understands or knows the meaning of many thousands of words, including **disciplinary words** (e.g., science, social studies, math, and **literacy**), many more than he or she routinely uses (**receptive language**).

#### Examples illustrating this benchmark include:

- using a new word when describing a trip to the museum or from another experience
- demonstrating understanding of new words and information by restating words in context or reproducing the appropriate actions
- responding to a teacher's request to "return to the table," when "return" may not be a word the child has used before
- responding correctly to a teacher's directive.

#### Supportive Instructional Strategies:

- Use and discuss new words daily when speaking with children.
- Teach and discuss new word meanings before, during, and after book reading.
- When creating a bulletin board or mural for a new theme, identify, label, and discuss the meaning and function of the pictures and objects.
- During an interactive science activity model the use of relevant specific science terms (e.g., experiment rather than project, beaker rather than cup, hypothesis rather than guess).
- Use words like, architect, engineer, columns and skyscraper to describe their roles, actions, and products while children are creating a structure in the block **center**.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.5.

##### II. Approaches to Learning

C.1.

##### III. Social and Emotional Development

A.c.1., C.1.

##### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b., G.4.a.

##### V. Cognitive Development and General Knowledge

A.e.1.a., A.e.1.b., A.e.3., A.f.3.a., A.f.3.b., A.f.3.c., B.a.2., C.a.1., C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

Include materials and supplies to support list, book, and chart-making to capture expanding vocabularies.

#### C. *Vocabulary*

##### 2. Shows increased *vocabulary* to describe many objects, actions, and events

At this age children are using more complex words in their language, particularly if they have been exposed to a rich *vocabulary*. Although they understand many more category labels than they use in speech, they include many category labels in their descriptions.

**Benchmark a:** Child uses a large speaking *vocabulary*, adding new words weekly.

#### Examples illustrating this benchmark include:

- using descriptive words (e.g., "My turtle crawls slowly." "That's a silly picture.")
- trying out new words when talking to their friends
- during story time, asking questions to clarify concepts and build word knowledge
- describing the process of how eggs and an incubator were used together to hatch baby chicks.

#### Supportive Instructional Strategies:

- 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 and request of picture card.
- Develop child-friendly definitions of important words related to an upcoming lesson.
- Build your own background knowledge and expanded *vocabulary* related to an upcoming thematic unit to share with the children.
- Create a bulletin board or other spotlight area to highlight new words children discover during on-going classroom experiences.
- Create and regularly add to a classroom dictionary that includes new words, child-friendly definitions, and illustrations or photographs.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.5.

##### II. Approaches to Learning

C.1.

##### III. Social and Emotional Development

A.c.1., C.1.

##### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b., G.4.a.

##### V. Cognitive Development and General Knowledge

A.e.3., A.f.3.a., A.f.3.b., A.f.3.c., B.a.2., C.a.1., C.a.3.

#### Teacher Tips

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

#### 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).

#### C. Vocabulary

##### 2. Shows increased *vocabulary* to describe many objects, actions, and events

At this age children are using more complex words in their language, particularly if they have been exposed to a rich *vocabulary*. Although they understand many more category labels than they use in speech, they include many category labels in their descriptions.

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

#### Examples illustrating this benchmark include:

- answering questions at large group time about forms of transportation
- labeling and describing fruits and vegetables
- identifying which objects are kitchen items and which are not
- describing an apple as a fruit and a jacket as a piece of clothing.

#### Supportive 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.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1., B.b.1.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., E.1.a.

##### V. Cognitive Development and General Knowledge

B.c.1., B.d.1.

#### Teacher Tips

Building children's *vocabulary* can be included into the familiar routine of sharing story books with children. This allows children to learn new *vocabulary* words within an engaging activity and allows them to hear the new *vocabulary* words used within the story.

#### Environmental Considerations

Include real objects, manipulatives, or photographs in the classroom for children to describe and compare.

#### C. *Vocabulary*

##### 2. Shows increased *vocabulary* to describe many objects, actions, and events

At this age children are using more complex words in their language, particularly if they have been exposed to a rich *vocabulary*. Although they understand many more category labels than they use in speech, they include many category labels in their descriptions.

**Benchmark c:** Child uses a variety of word meaning relationships (e.g., part-whole, object-function, object-location).

#### Examples illustrating this benchmark include:

- naming parts of a familiar object (e.g., naming parts of a car: hood, window, trunk)
- answering questions about what a familiar object is used for (e.g., pencil is for writing, pot is for cooking)
- sorting play animals according to typical habitat (e.g., jungle animals vs. farm animals vs. house animals).

#### Supportive Instructional Strategies:

- Use real objects, manipulatives, or photographs to help children practice using the concepts of part-whole (e.g., identifying the tires, steering wheel, trunk of a vehicle).
- Before taking a fieldtrip, hold a class discussion about what you might see and experience at the location (e.g., sheep, tractor, cows at a farm).
- After taking the fieldtrip, hold a discussion about what the children saw at the location and compare with the earlier *prediction*.
- Discuss the necessary tools and their functions when *planning* a cooking experience (e.g., spoon for stirring, whisk for whipping, and oven for baking).
- Use props, manipulatives, charts, and photos to support children's understanding of associations among word concepts (e.g., matching pictures of car parts to the picture of a car.).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

A.c.1., C.1.

#### IV. Language, Communication, and Emergent Literacy

F.2.a., F.2.b., F.2.c., F.2.d., F.2.e., F.2.f.

#### Teacher Tips

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.

#### Environmental Considerations

Provide books of increasing complexity.

#### D. Sentences and Structure

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

Four-year-olds increase their use of sentences and varied sentence structures (e.g., greater length and complexity). Although errors may continue to occur (e.g., over-generalization of rules), 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.

#### Examples illustrating this benchmark include:

- 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
- sharing an experience (e.g., "We went to the park in my grandmother's car.").

#### Supportive 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.").
- Reply and expand when a child responds with a simple phrase. (e.g., when child says "Here is a dinosaur." expand by saying "Yes, that is a dinosaur called a Tyrannosaurus Rex.").



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

A.c.1., B.b.3., C.1.

#### IV. Language, Communication, and Emergent Literacy

A.2.a., A.2.b., A.2.c., A.2.d., A.2.e., A.2.f.

#### Teacher Tips

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 goed to the store!" The teacher says, "Oh! You went to the store? What did you buy there?").

#### Environmental Considerations

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

#### D. Sentences and Structure

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

Four-year-olds increase their use of sentences and varied sentence structures (e.g., greater length and complexity). Although errors may continue to occur (e.g., over-generalization of rules), they demonstrate understanding of many structure and *grammar* rules.

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

#### Examples illustrating this benchmark include:

- using the correct tense when describing something they did the night before (e.g., "My family went to the ice cream store last night.")
- saying "feet" although a younger classmate says "foots"
- identifying all the art objects that belong to them, using "my" and "mine," and those that belong to their friends, using "his" or "her."

#### Supportive 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."
- When child says something with a grammatical error, respond using the correct terminology (e.g., child says "I runned to the swings"; respond with "Yes you ran to the swings," modeling the correct *grammar*).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

C.1.

#### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b., G.4.a.

#### V. Cognitive Development and General Knowledge

C.a.3.

#### Teacher Tips

Show and Tell is best used with small groups to retain child attention and interest.

#### Environmental Considerations

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

#### D. Sentences and Structure

##### 2. Connects phrases and sentences to build ideas

As four-year-olds explore their *environments*, they demonstrate their growing knowledge by sharing information in longer and more *complex sentences* that provide relevant details about a specific topic. 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.

**Examples illustrating this benchmark include:**

- 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 large group 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 where we saw a waterfall.").

**Supportive 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.").
- Provide opportunities at meal times for children to engage in conversations with the teacher and other children.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1.

##### II. Approaches to Learning

A.1, C.1.

##### III. Social and Emotional Development

B.c.1., B.b.1., C.2., B.b.3.

##### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b.

##### V. Cognitive Development and General Knowledge

A.b.1.a., A.b.1.b., A.b.2.b.,  
A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d.,  
C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

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

#### D. Sentences and Structure

##### 2. Connects phrases and sentences to build ideas

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

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

#### Examples illustrating this benchmark include:

- describing cause and effect (e.g., "My hands are dirty because I was playing in the dirt.")
- predicting what will happen next ("If I don't water the plants they may die.")
- describing events in a logical time sequence (e.g., "This morning I got up, brushed my teeth, and came to school.").

#### Supportive 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.").
- Model how to combine two simple related phrases into one coherent sentence (e.g., "This is a pen. It writes in purple ink," becomes "This is a pen that writes in purple ink.").

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

C.1.

#### IV. Language, Communication, and Emergent Literacy

F.4.a.b., G.4.a.

#### V. Cognitive Development and General Knowledge

C.a.3.

#### Teacher Tips

Guiding or open-ended questions cannot be answered with “yes” or “no.” They require a more detailed response.

#### Environmental Considerations

Use adaptations and document communications of children with disabilities.

#### D. Sentences and Structure

##### 2. Connects phrases and sentences to build ideas

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

**Benchmark c: Child combines sentences that give lots of detail, stick to the topic, and clearly communicate intended meaning.**

##### Examples illustrating this benchmark include:

- describing a family event, combining sentences and giving lots of detail
- participating in a large group discussion of birds and building on the information by talking with a teacher as they watch birds outside later in the day
- asking many questions about fire engines when the firefighter is a special visitor at the school
- maintaining the focus of the conversation in response to a listener's comment or question (e.g., Child says, “I played in the snow.” The listener says, “There’s no snow here!” Child says, “I was at my grandmother’s house where there was snow.”).

##### Supportive Instructional Strategies:

- Provide an interesting picture and relevant verbal prompts to help the children describe what they see (e.g., “What is the large object in the middle of this picture?” “How did you know it was a \_\_\_\_?” “Tell us what is behind this \_\_\_\_.”).
- Ask questions and make comments to guide the children in describing a common routine within the classroom (e.g., “After I use the bathroom, I flush the toilet and wash my hands.”).
- Model and use guiding questions to help children tell about a personal event, organizing the details into an understandable sequence (e.g., “What did you do first?” “What did you do after that?” and “How did it end?”).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.c.1., B.b.1., C.2., B.b.3.

##### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b.

##### V. Cognitive Development and General Knowledge

A.b.1.a., A.b.1.b., A.b.2.b.,  
A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d.,  
C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

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

#### E. Conversation

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

Four-year-olds 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 a:** Child demonstrates varied uses of language (e.g., requesting, commenting, using *manner words*, problem-solving).

#### Examples illustrating this benchmark include:

- 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
- responding with "thank you" when a friend hands them a cookie; saying "excuse me" when they accidentally bump into another child
- participating in a discussion about magnets, making *predictions* about what things the magnet will attract.

#### Supportive Instructional Strategies:

- Model appropriate language usage (e.g., During lunch the teacher says "Please pass the napkins.").
- Engage children verbally in *center* activities by role-playing and modeling desired language *skills*.
- Provide daily experiences that require children to talk and work cooperatively (e.g., assembling a puzzle with a classmate, role-playing in the *dramatic play* area, putting on a puppet show with classmates).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

A.1., C.1.

#### III. Social and Emotional Development

B.c.1., B.b.2., C.1.

#### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d., C.a.3.

#### Teacher Tips

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

#### Environmental Considerations

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

#### E. Conversation

#### 2. *Initiates*, ask questions, and responds to adults and peers in a variety of settings

Four-year-olds 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, or appropriately introduces new *content*.

#### Examples illustrating this benchmark include:

- joining in appropriately during 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 after saying "Goodbye"
- explaining or elaborating and staying on topic when a listener asks a question or makes a comment.

#### Supportive Instructional Strategies:

- Greet each child daily and reply to each child's response.
- Engage children in conversation by asking open-ended questions, expanding on their comments, and providing opportunities for children to take the lead during conversation.
- Encourage an unengaged child to *initiate* a conversation with another child.
- Use puppets to model ways of initiating and continuing conversation about a topic.
- Put on a skit with co-teachers to demonstrate how to ask a friend to share a toy.
- Model and encourage conversations during meal time.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.c.1., B.b.2., C.1.

##### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d., C.a.3.

#### Teacher Tips

Many four-year-old children will need repeated practice to learn their address. Work cooperatively with parents on this skill.

#### Environmental Considerations

Provide comfortable places for parents to be when visiting the early learning *environment*.

#### E. Conversation

##### 2. *Initiates*, ask questions, and responds to adults and peers in a variety of settings

Four-year-olds 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 b:** Child provides appropriate information for the setting (e.g., introduces him or herself, requests assistance, answers questions by providing name and address to a police officer or other appropriate adult).

#### Examples illustrating this benchmark include:

- answering questions asked by the visiting nurse
- asking the teacher for help after unsuccessfully trying to solve a problem with a friend
- introducing themselves to a new classmate.

#### Supportive Instructional Strategies:

- Use appropriate language to model classroom expectations for responses (e.g., when first meeting the child, the teacher says, "Hello, I am Ms. Manning.").
- Teach children to ask for help as needed ("Will you help me tie my shoe?").
- Use puppets, books, and discussions to help children understand appropriate questions and answers with visiting community helpers.
- Create a classroom greeter/guide as one of your daily classroom jobs.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.b.1., B.c.1., C.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a.

#### Teacher Tips

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.

#### Environmental Considerations

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

#### E. Conversation

##### 3. Uses appropriate language and style for context

Four-year-olds are becoming quite good at following conversational rules and using appropriate verbal and non-verbal 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*).

#### Examples illustrating this benchmark include:

- participating in a conversation with an adult or 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.

#### Supportive Instructional Strategies:

- Model conversational etiquette during Show and Tell (e.g., "Susie is sharing now. Your turn is next.").
- Model conversational etiquette during meal time (e.g., "Please pass the green beans, Charlie.").
- 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).
- Encourage active listening by asking children to maintain eye contact, nod, and ask questions to clarify understanding.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.c.1., B.b.1., C.1.

#### Teacher Tips

Cultural differences in nonverbal conversational rules exist and should be respected (e.g., eye gaze, distance between speakers).

#### Environmental Considerations

Equip the classroom with evidence of the children's cultural heritage and practices.

#### E. Conversation

#### 3. Uses appropriate language and style for context

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

**Benchmark b:** Child demonstrates knowledge of non-verbal conversational rules (e.g., appropriate eye contact, appropriate facial expressions, maintaining a comfortable distance in conversation).

#### Examples illustrating this benchmark include:

- looking at a classmate as they share about their pets
- showing excitement by displaying wide open eyes and a smile when talking about a new pet
- standing at a comfortable distance from a friend as they talk.

#### Supportive Instructional Strategies:

- Read parts of a book using different facial expressions and discuss how this affects the story.
- Model and explain different non-verbal conversational rules (e.g., "When you look at me, it shows me that you are listening.").
- Role-play conversations using appropriate non-verbal behaviors.
- Encourage active listening by asking children to maintain eye contact, nod, and ask questions to clarify understanding.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

B.c.1., B.b.1., C.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### E. Conversation

##### 3. Uses appropriate language and style for context

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

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

#### Examples illustrating this benchmark include:

- 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
- making context-appropriate statements (e.g., "I am the door holder for the week," or "I am working in the science *center* today.")

#### Supportive 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.
- Role-play introducing visitors to the classroom during large group time or in the *dramatic play* area.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

A.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a.

#### Teacher Tips

Illiteracy is not knowing how to read. Alliteracy is knowing how to read but not having the desire to read. Teachers need to instill in children the desire to read and model the enjoyment of reading.

#### Environmental Considerations

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

#### F. 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).

**Examples illustrating this benchmark include:**

- selecting the reading *center* during free play or listening attentively during *read alouds*
- reenacting a favorite story with felt board characters
- "reading" a book to a doll during *dramatic play*
- using props like menus and phone books in the *dramatic play* area.

**Supportive Instructional Strategies:**

- Use a variety of fiction and non-fiction 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 audiobooks that children can listen to while following along in the printed text.
- Create, use, and refresh a classroom library, that reflects gender, cultural, and linguistic *diversity* (e.g., story, alphabet, non-fiction, fiction, computer-based story books, big books, poetry, fairy tales and fables, plays, magazines, newspapers, and class-created books).
- Encourage families to bring or suggest examples of books or printed materials that represent their home and *culture*.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

A.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a.

#### Teacher Tips

The *skills* referenced in Benchmark b are often referred to as “concepts of print.”

#### Environmental Considerations

Create inviting and comfortable reading areas and spaces indoors and outdoors.

#### F. 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 b: Child interacts appropriately with books and other materials in a print-rich *environment*.**

#### Examples illustrating this benchmark include:

- picking a book from the shelf, pretending to read, and returning it to the shelf when they are finished
- looking at an e-reader, magazines, and newspapers in an orderly fashion, turning one page at a time, progressing from front to back
- selecting and playing a specific audiobook from the MP3 player.

#### Supportive Instructional Strategies:

- Model appropriate book handling on a daily basis.
- Teach children to use technology-based text materials and provide opportunities for use.
- Demonstrate appropriate use of written materials (e.g., lists, menus, songs, signs, and charts).
- Encourage children to return materials to their appropriate place in the classroom by using information on the labels.
- Ensure that materials are accessible so children can explore and use them independently.
- Encourage children to experiment using *literacy* materials in novel ways (e.g., pretending to use a magazine as a cookbook in the *dramatic play center*, using stickers as stamps and note cards as envelopes to mail letters).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

A.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a.

#### Teacher Tips

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.

#### Environmental Considerations

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

#### F. 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 c: Child asks to be read to or asks the meaning of written text.**

**Examples illustrating this benchmark include:**

- selecting a favorite book for an adult to read before rest time
- 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.

**Supportive Instructional Strategies:**

- Model getting meaning from text in books and other print in the classroom. (e.g., using *think-alouds*, comments, and questions as you are reading).
- Encourage children to ask questions about meaning and purpose of written language.
- Discuss meanings of words and passages before and after reading (e.g., before reading the story "The Princess and the Pea" teacher provides a definition of the word "mattress"; after reading the book, children and teacher discuss and revisit the term "mattress.>").
- Encourage children to make suggestions and request for books and other related materials about topics of interest and then make an effort to provide them (e.g., check them out from the public library or download from the internet).
- Listen and respond positively to children's comments, questions, and interest in written materials (e.g., asking follow-up questions, finding materials for the child related to the topic, reading a book related to the topic, encouraging the child to re-read the book.).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

#### Teacher Tips

A child's individual development of *phonological awareness* is closely tied to overall language and speech development and is a strong predictor of reading success.

#### Environmental Considerations

Provide opportunities for children to demonstrate the ability to distinguish individual words within spoken phrases or sentences through games.

#### F. Emergent Reading

##### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

**Benchmark a:** Child can distinguish individual words within spoken phrases or sentences.

Examples illustrating this benchmark include:

- placing one block for each word spoken by the teacher
- taking a step forward for each word heard in a familiar nursery *rhyme*
- participating in reciting poems and singing songs during large group time.

**Supportive Instructional Strategies:**

- Make obvious pauses between words to emphasize the separation of words within the phrases and help children differentiate each word.
- Model stomping your feet, once for each word in a phrase or sentence.
- Play games that help children distinguish individual words within spoken phrases or sentences (e.g., clapping hands together once for each word).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

#### Teacher Tips

Using rhythm techniques such as clapping, tapping and snapping help children to identify parts of a compound word.

#### Environmental Considerations

Provide a variety of pictures that children may use when experimenting with the creation of compound words.

#### F. Emergent Reading

#### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

**Benchmark b:** Child combines words to make a compound word (e.g., “foot” + “ball” = “football”).

#### Examples illustrating this benchmark include:

- experimenting with the creation of compound words
- using picture cards to create compound words
- creating compound words by adding a second part to the first part provided by the teacher.

#### Supportive Instructional Strategies:

- Provide and demonstrate the use of compound word puzzles and picture cards for children to use when practicing *blending* compound words they say aloud.
- Play a word game, saying the first part of a compound word and asking children to provide a variety of second halves that make real compound words (e.g., say “sun” and encourage responses like “flower,” “shine,” and “burn”).
- Provide pictures or oral examples of multi-syllabic words that are and are not compound words and ask children to identify compound words (e.g., show or say “doghouse,” “catfish,” “camel,” “starfish,” “horse.” Ask child to identify the compound words).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

#### Teacher Tips

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.

#### Environmental Considerations

Provide compound word puzzles that children may use when experimenting with the separation of compound words.

#### F. Emergent Reading

##### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

**Benchmark c:** Child deletes a word from a compound word (e.g., “starfish” – “star” = “fish”).

Examples illustrating this benchmark include:

- experimenting with the separation of compound words
- using picture cards to separate compound words
- breaking apart compound words by removing the second part from the compound word provided by the teacher.

#### Supportive Instructional Strategies:

- Provide and demonstrate the use of compound word puzzles and picture cards for children to use when practicing taking apart compound words they say aloud.
- Say compound words and then leave off the first part of the compound words (e.g., Teacher says “say backpack”; child responds, “backpack”; teacher says, “now say backpack without back”; child says “pack.”)
- Say compound words and then leave off the second part of the compound words (e.g., Teacher says “say watermelon”; child responds, “watermelon”; teacher says, “now say watermelon without melon”; child says “water.”).
- Play a word game, saying a compound word and asking children to say the first or second part of the word (e.g., say “sunshine” and encourage responses of “sun” or “shine” ).
- Provide additional practice opportunities and appropriate corrective feedback, if a child responds incorrectly. Provide the correct response if necessary. (e.g., “that’s not quite right,” “let’s try again,” “listen carefully,” “that’s just right”).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

### Teacher Tips

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.

### Environmental Considerations

Provide a variety of pictures that children may use when experimenting with the creation of compound words.

### F. Emergent Reading

#### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

Benchmark d: Child combines *syllables* into words (e.g., “sis” + “ter” = “sister”).

#### Examples illustrating this benchmark include:

- 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 familiar words and names
- hearing a familiar word and identifying whether it has one, two, or three *syllables*.

#### Supportive Instructional Strategies:

- Play a clapping game, clapping once while saying each *syllable* in children’s names, and encourage children to join in (e.g., Lin-da gets two claps, Pat gets one clap, and Mar-ga-ret gets three claps).
- Provide pictures of familiar two-*syllable* words cut into two pieces. First model, then encourage the 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*.
- Model and then ask children to repeat the correct response individually or occasionally as a group.
- Provide pictures, objects, and non-verbal gestures to support children’s understanding and demonstration of the *blending* task.
- In a small group, designate each child to represent the first or second *syllable* in a two-*syllable* word using color-coded *syllable* cards. Ask children to find their matching partner. (e.g., child with yellow card that says “wa” finds the partner with the yellow card that says “ter”).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

#### Teacher Tips

Speak slowly and clearly when teaching *emergent literacy skills*.

#### Environmental Considerations

Incorporate words from the different languages spoken by the children in the word games and print within the early learning *environment*.

#### F. Emergent Reading

##### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

**Benchmark e:** Child can delete a *syllable* from a word (e.g., “trumpet” – “trum” = “pet” or “candy” – “dy” = “can”).

Examples illustrating this benchmark include:

- hearing the sounds of two *syllables* and providing the remaining *syllable* when the teacher asks what is left when the first *syllable* is removed (e.g., teacher says “spoon; what do you hear if I take away sp?”).
- with prompting, with a picture cut in half, pointing to the portion of the picture that represents the remaining *syllable*
- with prompting, with a spoken two-*syllable* word, saying the first *syllable* (e.g., “pencil / pen, picture / pic, slipper / slip”).

#### Supportive Instructional Strategies:

- Play word games (e.g., say a child’s name, then say the name without the first *syllable* and encourage children to repeat with their own name and the names of their friends).
- Provide pictures of familiar three-*syllable* words cut into three pieces. First model, then encourage children to practice taking the pictures apart while saying the word aloud without the first or last *syllable*.
- Play a game in which children say two-*syllable* words and then say the words with the *syllables* reversed (e.g., say, “monkey,” then “keymon”).
- In a small group, designate each child to represent the first or second *syllable* in a two-*syllable* word and stand with their partner. Have children squat or hide to model being deleted from the word.
- To provide additional instructional support, say two-*syllable* words more slowly with emphasis on each *syllable* and with deliberate and obvious pauses between *syllables*.
- Provide a basket with several real items that are two or three *syllables*. Ask child to select one item and move the item up and down to indicate the *syllables*. (e.g., helicopter: “he” “li” “cop” “tor”; tractor: “trac” “tor”).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

B.c.1.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.1.a., C.1.b., C.1.c., D.1.a., D.1.b.

#### Teacher Tips

The ability to recognize that a word can be separated into its initial sound or sounds (e.g., the /t/ in “toy” and the /gr/ in “grow”) allows children to perform a number of different manipulations with words. Once children can separate the first sound (*onset*) from the rest of a word (*rime*), they can recognize when two words share the same final sound or *rhyme*. Children also can identify words by their first or initial sounds (*onset*) and can match words that share the same initial sound. The focus should be on children’s accuracy in separating, naming, or matching the initial sounds, rather than on how quickly they can do this task.

#### Environmental Considerations

Provide books and poems that *rhyme*, as well as picture cards to use when playing word games.

#### F. Emergent Reading

#### 2. Shows age-appropriate *phonological awareness*

*Phonological awareness* is an auditory skill. It is the ability to recognize and manipulate speech sounds within spoken language. Developing *phonological awareness* in preschool leads to success in reading and writing in the school years. Development of *phonological awareness* is enhanced with consistent and intentional instruction. With teacher support, children are increasingly aware of and can differentiate the units of sound within spoken words.

Benchmark f: Child combines *onset* and *rime* to form a familiar one-syllable word with and without pictorial support (e.g., when shown several pictures, and adult says /c/ + “at,” child can select the picture of the cat).

Examples illustrating this benchmark include:

- saying the name of familiar one-syllable words when the teacher says the word with a pause between the *onset* (first sound) and the *rime* (vowel sound and rest of word)
- picking up all the toys in the room that begin with the /b/ sound, like baby, blocks, and books
- saying their own names with a separation between the first sound and the rest of the sounds
- identifying which two of three words *rhyme* and which word does not.

Supportive Instructional Strategies:

- Say familiar words with clear separation between the *onset* and the *rime* (e.g., say, “Let’s read the b—ook.” Or “Go get the c—up.”).
- Provide pictures of familiar one-syllable words cut into two pieces for children to put together and separate while orally *blending* together and taking apart the words into *onset/rime* segments.
- Give children sets of four picture cards and help them to say the name of each picture aloud. Have the children find the card that does not start with the same sound as the other three.
- Select words carefully for use in these activities. Words with *blends* (e.g., /bl/, blocks, /st/ street) or *digraphs* (e.g., /sh/, shoes, /ch/ chair) are more challenging for children to manipulate.
- Pronounce isolated sounds without an /uh/ sound when articulating individual sounds. (e.g., /b/ instead of /buh/).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b.

#### Teacher Tips

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

#### Environmental Considerations

Include adaptations for children with hearing and vision impairments and other disabilities.

#### F. Emergent Reading

##### 3. Shows *alphabetic knowledge*

Letters are the written “code” of spoken language and are critical for the development of reading *skills*. Four-year-old children encounter letters and words in their everyday *environment*. Children encounter letters in a variety of *contexts* (e.g., book *center*, block *center*, *dramatic play center*, and art *center*). They begin to identify letters by name, especially when a letter is meaningful to them. Teacher *scaffolding* and support over the course of the prekindergarten year is important to ensure that all letters are introduced to children. *Alphabetic knowledge* is enhanced with consistent and intentional instruction. With multiple experiences over time, children will begin to identify some letter sounds as well, especially letter sounds that are similar to the letter’s name (e.g., the letter “M” says “mmm”).

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

Examples illustrating this benchmark include:

- 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.

**Supportive 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.
- Provide child’s name in multiple places within the classroom. Have child point to the letter that begins his/her name.
- Provide computer letter naming games/activities that allow child to see the letter when the letter is named.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b.

#### Teacher Tips

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

#### Environmental Considerations

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

#### F. Emergent Reading

##### 3. Shows *alphabetic knowledge*

Letters are the written “code” of spoken language and are critical for the development of reading *skills*. Four-year-old children encounter letters and words in their everyday *environment*. Children encounter letters in a variety of *contexts* (e.g., book *center*, block *center*, *dramatic play center*, and art *center*). They begin to identify letters by name, especially when a letter is meaningful to them. Teacher *scaffolding* and support over the course of the prekindergarten year is important to ensure that all letters are introduced to children. *Alphabetic knowledge* is enhanced with consistent and intentional instruction. With multiple experiences over time, children will begin to identify some letter sounds as well, especially letter sounds that are similar to the letter’s name (e.g., the letter “M” says “mmm”).

**Benchmark b: Child names most letters (e.g., when shown an uppercase or lowercase letter, can accurately say its name).**

**Examples illustrating this benchmark include:**

- identifying several of the letters in a foam board alphabet puzzle
- naming letters on a sign in the classroom
- participating in large group time alphabet identification games.

**Supportive Instructional Strategies:**

- Give children frequent opportunities to say aloud the name of letters when shown 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.
- Model appropriate use of uppercase and lowercase letters in classroom written materials.
- Provide children with exposure and activities using both uppercase and lowercase letters.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b.

#### Teacher Tips

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

#### Environmental Considerations

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

#### F. Emergent Reading

##### 3. Shows *alphabetic knowledge*

Letters are the written “code” of spoken language and are critical for the development of reading *skills*. Four-year-old children encounter letters and words in their everyday *environment*. Children encounter letters in a variety of *contexts* (e.g., book *center*, block *center*, *dramatic play center*, and art *center*). They begin to identify letters by name, especially when a letter is meaningful to them. Teacher *scaffolding* and support over the course of the prekindergarten year is important to ensure that all letters are introduced to children. *Alphabetic knowledge* is enhanced with consistent and intentional instruction. With multiple experiences over time, children will begin to identify some letter sounds as well, especially letter sounds that are similar to the letter’s name (e.g., the letter “M” says “mmm”).

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

**Examples illustrating this benchmark include:**

- naming the correct letter when the teacher says the sound of a letter from a group of letters
- identifying the correct letter associated with the first sound in familiar words
- naming the correct letter when the teacher says the corresponding letter sound.

**Supportive Instructional Strategies:**

- Using manipulatives to instruct children in matching letter sounds to the letter name and the printed letter shape.
- Play a game matching children to the large printed letter representing the first sound in each of their names.
- Provide a variety of familiar objects for children to sort into first-sound piles.
- Introduce the most common letter sound first (e.g., the sound “g” makes in “goat” rather than “giants,” or the sound “c” makes in “cat” rather than “circle”).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b.

#### Teacher Tips

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

#### Environmental Considerations

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

#### F. Emergent Reading

##### 3. Shows *alphabetic knowledge*

Letters are the written “code” of spoken language that are critical for the development of reading *skills*. Four-year-old children encounter letters and words in their everyday *environment*. Children encounter letters in a variety of *contexts* (e.g., book *center*, block *center*, *dramatic play center*, and art *center*). They begin to identify letters by name, especially when a letter is meaningful to them. Teacher *scaffolding* and support over the course of the prekindergarten year is important to ensure that all letters are introduced to children. *Alphabetic knowledge* is enhanced with consistent and intentional instruction. With multiple experiences over time, children will begin to identify some letter sounds as well, especially letter sounds that are similar to the letter’s name (e.g., the letter “M” says “mmmm”).

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

Examples illustrating this benchmark include:

- 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
- saying the correct sound for the first letter(s) of familiar words.

Supportive 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.
- Pronounce isolated sounds without an /uh/, when articulating individual sounds (e.g., /b/ instead of /buh/).
- 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.
- Highlight for children instances when certain letters may represent less common sounds in words (e.g., Juan, Phillip, xylophone, giraffe).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### 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

B.b.2.

##### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.a.1., C.1.b., C.1.c., C.2.a., C.2.b., D.2.a., D.2.b., D.2.c., E.1.a.

##### V. Cognitive Development and General Knowledge

D.c.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### F. Emergent Reading

##### 4. Demonstrates *comprehension* of text read aloud

Four-year-olds build understanding (*comprehension*) by linking new information to things they already know. Experiences help them understand more ideas and connect new words, phrases, and concepts to their own life. Children's attention grows through daily story time and meaningful experiences with books and other forms of literature. They ask and respond appropriately to questions about the story. Children begin requesting favorite books and can retell stories by placing events in the correct order. They may also begin to relate their own personal experiences or fantasies to those heard in stories and predict the next event.

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

Examples illustrating this benchmark include:

- guessing correctly what food *The Very Hungry Caterpillar* will eat next
- using puppets or flannel board pieces to retell a familiar story
- relating what happened to a character in a book to something similar that happened to them (e.g., saying "One time, I got scared about going to school." after reading *Froggy Goes to School*)
- recalling information from a story and using the information in retellings and *dramatic play*.

**Supportive Instructional Strategies:**

- Provide *dramatic play* props for children to use when reenacting a fairy tale or familiar short story *read alouds*.
- 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.
- Provide an *environment* where children's initiative to modify the *environment* to extend the learning is encouraged (e.g., child independently takes or creates props from the classroom to the outside in order to turn the sandbox into a pirate ship).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### IV. LANGUAGE, COMMUNICATION, AND 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

B.b.2.

##### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a., C.a.1., C.1.b., C.1.c., C.2.a., C.2.b., D.2.a., D.2.b., D.2.c., E.1.a.

##### V. Cognitive Development and General Knowledge

D.c.1.

##### Teacher Tips

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

##### Environmental Considerations

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

#### F. Emergent Reading

##### 4. Demonstrates *comprehension* of text read aloud

Four-year-olds build understanding (*comprehension*) by linking new information to things they already know. Experiences help them understand more ideas and connect new words, phrases, and concepts to their own life. Children's attention grows through daily story time and meaningful experiences with books and other forms of literature. They ask and respond appropriately to questions about the story. Children begin requesting favorite books and can retell stories by placing events in the correct order. They may also begin to relate their own personal experiences or fantasies to those heard in stories and predict the next event.

**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...?" "How would you feel if you...?").

##### Examples illustrating this benchmark include:

- responding to open-ended questions about a story, (e.g., "What do you think will happen next?" or "Why do you think he did that?")
- proposing a new title or a new event to include in the story
- responding appropriately to a teacher's question while reading a book
- relating an event in their own life to what happened in the story
- Describing how they might respond to story events (e.g., "what would you say to the big bad wolf?").

##### Supportive Instructional Strategies:

- Model asking questions or making *predictions* related to story events (e.g., "I wonder what Goldilocks was thinking when she ran away from the bear's house?").
- Activate and connect children's background knowledge to stories.
- 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.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1., A.2., D.1., D.2., D.3.

##### II. Approaches to Learning

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

##### III. Social and Emotional Development

A.b.2.

##### V. Cognitive Development and General Knowledge

D.a.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### G. Emergent Writing

##### 1. Shows motivation to engage in written expression

Through writing experiences children realize that writing is a way to express their thoughts and ideas to others. Children are often eager to share their experiences through writing. 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. As children continue to experiment with writing, they make important letter-sound connections that build reading *skills* while they are refining their *fine motor* control.

**Benchmark a:** Child demonstrates understanding of the connections among their own ideas, experiences, and written expression.

#### Examples illustrating this benchmark include:

- solving problems using written expression (e.g., helping the teacher to write classroom rules)
- creating an alternate ending to a story
- describing feelings about an experience through written expression (e.g., drawing pictures or writing)
- asking for assistance in documenting a recent experience.

#### Supportive Instructional Strategies:

- Create charts and graphs to capture children's ideas.
- Provide time and materials for children to create and dictate a story or play.
- Encourage children to illustrate and dictate their thoughts and ideas (e.g., teacher writes child's description of their own drawing).
- Work as a group to compose a song or poem about a current event or classroom event.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2., D.3.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

F.3.a., G.1.a., G.3.a.

##### V. Cognitive Development and General Knowledge

D.a.1.

#### Teacher Tips

Providing children with opportunities to scribble allows them to develop *fine motor* control and promotes future writing skills.

#### Environmental Considerations

Include a variety of writing materials for children to access in all areas of the classroom.

#### G. Emergent Writing

##### 1. Shows motivation to engage in written expression

Through writing experiences children realize that writing is a way to express their thoughts and ideas to others. Children are often eager to share their experiences through writing. 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. As children continue to experiment with writing, they make important letter-sound connections that build reading *skills* while they are refining their *fine motor* control.

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

Examples illustrating this benchmark include:

- signing their name to a drawing
- writing a few letters or mock letters as a caption under a drawing
- writing a "recipe" on a pad of paper when playing in the *dramatic play center* set up like a kitchen
- using the writing desk in the *dramatic play center* to write notes, prescriptions, letters, and drawings.
- 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"
- responding "This is my house and my dog. My dog is yellow" when asked to describe their drawing.

#### Supportive Instructional Strategies:

- Include writing materials in all areas of the classroom; model and encourage their use.
- Put a writing desk in the *dramatic play* area. Stock it with pencils, markers, crayons, paper, envelopes and stickers. Model writing a letter to a friend or family member or make a grocery list.
- 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.
- Allow children to "sign-in" each morning to record their attendance.



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.2., D.1., D.2., D.3.

##### II. Approaches to Learning

A.1.

##### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c.

#### Teacher Tips

Stages of writing include

- drawing
- scribbling
- using letter-like forms
- using letter strings
- invented (phonetic) spelling
- conventional spelling.

#### Environmental Considerations

Include supplies to support book- list and chart-making.

#### G. Emergent Writing

2. Uses scribbling, letter-like shapes, and letters that are clearly different from drawing to represent thoughts and ideas

*Emergent literacy skills* include the ability to write letters and letter-like shapes to convey meaning. As four-year-olds continue to refine their *fine motor skills* and learn to recognize letters and symbols, they begin to practice forming the letters. They are especially motivated to write their name and other meaningful words. Children who have had experiences with various writing tools (e.g., paintbrush, marker, pencil) are developing more control using these tools. They begin clearly identifying their “writing” from their drawings, even though their writing may not yet resemble standard letter forms.

**Benchmark a:** Child independently uses letter-like shapes or letters to write words or parts of words.

Examples illustrating this benchmark include:

- filling a paper with random marks and then “reading” the marks to the teacher or a peer
- making letter shapes using paint and brushes at the easel
- using a stick to make letters in wet sand on the playground
- writing a “story” that has distinctively different symbols for drawings (illustrations) and scribbling or letter-like shapes (text)
- using markers and pencils at the art table to label their drawing, writing an “r” next to a rainbow and their initial next to a figure.

**Supportive Instructional Strategies:**

- Provide opportunities for children to use rubber alphabet stamps to print their own names.
- Create journals and regular opportunities for children to write in and “read” from their journals.
- Provide children opportunities to match magnetic letters to printed words on picture cards.
- Provide children various opportunities to write letters in different media (e.g., sand, paint, buttons, shaving cream, chalk, and clay).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.2., D.1., D.2., D.3.

##### II. Approaches to Learning

A.1.

##### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c.

#### Teacher Tips

Talk with parents about their preferences regarding children's names and nicknames.

#### Environmental Considerations

Use a camera to photograph and display children's writing samples.

#### G. Emergent Writing

2. Uses scribbling, letter-like shapes, and letters that are clearly different from drawing to represent thoughts and ideas

*Emergent literacy skills* include the ability to write letters and letter-like shapes to convey meaning. As four-year-olds continue to refine their *fine motor skills* and learn to recognize letters and symbols, they begin to practice forming the letters. They are especially motivated to write their name and other meaningful words. Children who have had experiences with various writing tools (e.g., paintbrush, marker, pencil) are developing more control using these tools. They begin clearly identifying their "writing" from their drawings, even though their writing may not yet resemble standard letter forms.

**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.

Examples illustrating this benchmark include:

- signing in using their first name on classroom attendance sheet
- labeling belongings with their initials
- practicing writing their first and last names.

**Supportive Instructional Strategies:**

- Provide children with a model of their name in writing to encourage independent identification and production.
- Provide sign-in sheets on which children can print their names.
- Post a two-part chart daily with a question and picture symbols on which children must sign their name under their choice (e.g., "Do you want white or chocolate milk at lunch?" "Which do you like better—chocolate chip cookies or oatmeal cookies?").
- Have children sign their name to artwork and other creations, including dictations, photographs, and charts.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1., A.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a.

##### V. Cognitive Development and General Knowledge

D.1., D.2., D.3.

#### Teacher Tips

Celebrate all attempts at writing!

#### Environmental Considerations

Provide many materials for letter writing and tracing (e.g., sand trays, gel bags, and letters cut out of sandpaper, bubble wrap, corrugated cardboard, felt, or leather).

#### G. *Emergent Writing*

##### 3. Demonstrates age-appropriate ability to write letters

Most four-year-olds begin writing letters upon request, with teacher support and multiple experiences over time. Beginning with the letters of their names, familiar *environmental* signs, and other meaningful words, children quickly add other letters that have meaning to them.

**Benchmark a:** Child independently writes some letters on request.

**Examples illustrating this benchmark include:**

- writing their names on request
- writing recognizable letters (e.g., “m” and “p”) in the sand or on the sidewalk with chalk
- using magnetic letters to write a friend’s name.

**Supportive Instructional Strategies:**

- Model formation of letters and provide opportunities for children to practice writing letters.
- Provide a variety of materials to practice writing letters (e.g., sand, shaving cream, and finger paint).
- Create a class newsletter, having children dictate stories.

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.1., A.2., D.1., D.2., D.3.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., D.2.a., D.2.b.

#### Teacher Tips

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.

#### 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.

#### G. Emergent Writing

##### 4. Demonstrates knowledge of purposes, functions, and structure of written composition

Four-year-olds are beginning to understand the ways and reasons for writing. They become familiar with writing to tell stories, as well as writing to give information. Through multiple experiences and support from the teacher, children learn conventions used by writers. They begin to understand that writing has different purposes and that the form may vary with the purpose (e.g., signs, notes, lists, stories, invitations). They also begin to understand that writing has conventions (e.g., proceeds from left to right and top to bottom, and uses punctuation.)

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

**Examples illustrating this benchmark include:**

- scribbling a list starting at the top of the page
- dictating a story and, when finished, saying, "the end"
- writing their first and last names and leaving a space between the two names
- composing an email to a friend on a computer
- using a sticky pad in the art area to make an invitation for a friend to eat beside them at lunch
- writing letters on an envelope, putting a sticker on it, and "mailing" it to the teacher when playing at the writing table.

**Supportive Instructional Strategies:**

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



# LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY GLOSSARY

**academic language** - language used in the classroom setting (e.g., “line leader”, “**center** time”, “circle time”).

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

**alphabetic knowledge** - the understanding 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).

**articulation** - the correct pronunciation of one or more sounds within a word.

**autonomy** - independence.

**blend** - to combine sounds rapidly in order to accurately represent a word.

**blends** - combinations of two letter sounds to make one sound (e.g., /bl/ as in “blocks”; /st/ as in “street”).

**center** - area within the classroom arranged so that children are able to participate in a variety of related learning experiences (e.g., art **center**, reading **center**, science **center**, block **center**, **dramatic play** center, writing **center**).

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

**complex sentence** - a sentence that includes at least one independent clause and at least one dependent clause (a part of a sentence that 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.

**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 aloud to them).

**content** - information contained in a story or lesson.

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

**culture** - the customary beliefs, social forms, and material traits of a racial, religious, or social group.

**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 discovered on the playground).

**digraph** - two separate sounds joined together to create a new sound (e.g., /sh/ shoes; /ch/ chair).

**disciplinary words** - words used to describe **content** areas (e.g., science, social studies, math, and literacy).



## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY GLOSSARY (continued)

**discovery** - engaging students in deep learning that promotes exploration, problem solving, **creativity**, and student engagement.

**diversity** - the inclusion of different people (as people of different races or cultures) in a group or organization.

**dramatic play** - expressive and spontaneous play.

**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 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).

**environment** – the circumstances, objects, or conditions by which one interacts with and is surrounded.

**expansion question** - question asked in order to extend the thought process of the student (e.g., “what do you think will happen next?”).

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

**fine motor** - abilities using the small muscles of the hands (e.g., grasping toys, picking up or holding food, connecting links, lacing, drawing, crushing paper, cutting with scissors, holding a writing utensil).

**functional language** - vocabulary used to communicate the description of, use of, and/or directions pertaining to an item or task (e.g., same/different).

**initiate** - to begin something, taking the first step.

**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** - the ability to read and write.

**manner words** - words used to express appreciation, gratitude, or notice of an error (e.g., please, thank you, excuse me).

## IV. LANGUAGE, COMMUNICATION, AND EMERGENT LITERACY GLOSSARY (continued)

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**onset** - first sound(s) before the **rime** (vowel sound to the end of the word) (e.g., In the word dog, the **onset** is /d/ and the **rime** is “og”).

**oral language** - spoken language.

**organizational language** - vocabulary used to communicate placement of an item and or provides direction towards an item (e.g., in front of, behind, next to, opposite, below).

**phoneme** - the smallest unit of speech distinguished by the speakers of a particular language.

**phonological awareness** - the awareness that language is composed of sounds and the understanding of the relationships among these sounds.

**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).

**read alouds** - the teacher reading to the whole class, building on students' existing skills while introducing different types of literature and new concepts.

**recall question** - question asked of students to prompt them to recount the events of a story or occurrence.

**receptive language** - the understanding of language that is heard (e.g., a child understands when the teacher says, “It’s time to line up.”).

**reflection** - the process of reviewing and critiquing one’s own actions or one’s own work (e.g., the child shares with the teacher what he/she did during **center** time).

**rhyme** - a match between the sounds of two or more words or word endings (e.g., spoon, moon).

**rime** - the vowel and any sounds that come after the vowel in a one-syllable word (e.g., the **rime** of cat is /at/; the **rime** of cheese is /ez/).

**scaffolding** - the provision of sufficient support to promote learning when concepts and skills are being first introduced to students (e.g., modeling, giving clues, asking questions, and providing verbal prompts).

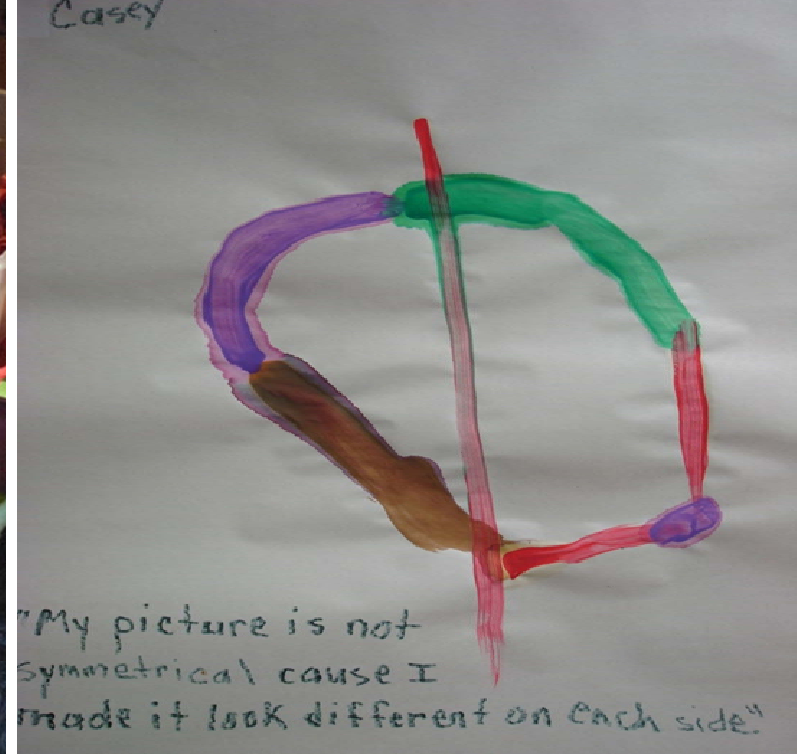
**skills** - the ability to use knowledge effectively and readily in performance, the ability to transform knowledge into action.

**syllable** - a unit of spoken language consisting of a single uninterrupted sound formed by a vowel, diphthong, or syllabic consonant alone, or by any of these sounds preceded, followed, or surrounded by one or more consonants.

**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 (e.g., “Dear” or “To Whom it May Concern”), ending a story with “the end,” and similar regularly used practices.

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What is your favorite color?

green	yellow	red	blue	Purple	Black	Pink
Da'Shawn			Michael	Asianae		Lakia
Sean			Victor	Cameron		Raeondlyn
2	0	0	2	2	2	2



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE





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# COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE INTRODUCTION

The cognitive development of four-year-olds is not limited to specified “learning times.” It happens through daily activities, routines, play, and interactions with adults and other children. Four-year-olds 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 them to make connections and exploring multiple solutions. There is no right or wrong in the process of **discovery**. There are opportunities for children to take risks and make mistakes in the **exploration** of new discoveries. Learning is built on the child's interests and potential interests and is facilitated by the teacher, who introduces concepts integrating all **content** areas so as not to teach concepts in isolation but use one concept as a bridge to another.

The cognitive development and general knowledge domain consists of process and life skills that support learning across four components: **Mathematical Thinking, Scientific Inquiry, Social Studies**, and **Creative Expression Through the Arts**. Throughout this domain, there are examples that show the interrelatedness among the four components. Additionally, there are several interrelated process and life skills that support all four of these components, including

- making connections through classification, **patterning**, comparing, and contrasting
- **inquiry**, questioning, and reasoning
- **observing** and collecting data
- solving problems and predicting outcomes
- communicating, reflecting, representing thoughts, and applying this to daily life
- using technology as a tool for learning and representing understanding
- using play and **dramatic play** as an avenue for cognitive development.

### 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.



# V. COGNITIVE DEVELOPMENT & GENERAL KNOWLEDGE A. Mathematical Thinking



V. COGNITIVE DEVELOPMENT &  
GENERAL KNOWLEDGE  
A. Mathematical Thinking



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# OVERVIEW OF MATHEMATICAL THINKING STANDARDS

## A. Mathematical Thinking

### 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 fewer.  
Benchmark d: Child determines one set of objects is a lot more than another set of objects.
4. Assigns and relates numerical representations among numerals (written), sets of objects, and number names (spoken) from zero to 10
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).

### 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 combining (adding) sets of objects.  
Benchmark b: Child indicates there are less (fewer) when removing (subtracting) 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 10.  
Benchmark b: Child removes objects from a set no larger than 10.  
Benchmark c: Child uses concrete objects (e.g., fingers, blocks) to solve complex problems.

# OVERVIEW OF MATHEMATICAL THINKING STANDARDS (continued)

## A. Mathematical Thinking (continued)

### b. Number and Operations (continued)

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

### c. Patterns and Seriation

1. Understands characteristics of patterns and non-patterns and begins to reproduce them with at least two elements (e.g., red/blue, red/blue versus a non-pattern like a rainbow)  
Benchmark a: Child recognizes patterns and non-patterns.  
Benchmark b: Child duplicates identical patterns with at least two elements.  
Benchmark c: Child recognizes pattern units (e.g., red/blue is the pattern unit of a red/blue/red/blue/red/blue pattern; dog/cat/cow is the pattern unit of a dog/cat/cow/dog/cat/cow pattern)  
Benchmark d: Child begins to independently produce patterns with at least two elements (e.g., red/blue, red/blue), with teacher support and multiple experiences over time.
2. Sorts, orders, compares, and describes objects according characteristics or attribute(s) (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.

### d. Geometry

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

# OVERVIEW OF MATHEMATICAL THINKING STANDARDS (continued)

## A. Mathematical Thinking (continued)

### d. Geometry (continued)

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

### e. Spatial Relations

1. Shows understanding of spatial relationships and uses position 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., in front of, behind, between, over, through, under), 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 (e.g., horizontal, diagonal, vertical)
4. Uses directions to move through space and find spaces in place (e.g., obstacle courses, Simon Says, Mother May I?, hop scotch, giving simple directions)

### f. Measurement

1. Engages in activities that explore measurement
2. 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.
3. 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.
4. Child predicts the results of a data collection, with teacher support and multiple experiences over time



# MATHEMATICAL THINKING INTRODUCTION

**Mathematical Thinking** is the first component of Cognitive Development and General Knowledge; it refers to the study of quantities and their relationships. There are six areas in which four-year-olds demonstrate mathematical skills: **number sense**, **number and operations**, **patterns and seriation**, **geometry**, **spatial relations**, and **measurement**. Children are naturally curious about number and mathematic concepts and, through rich experiences, their foundational knowledge can grow quickly in the year before kindergarten. Through meaningful experiences and discussion, children can share their understanding of mathematical concepts (e.g., making **patterns** with colored blocks, commenting about the height of plants growing in the vegetable garden, counting the number of pegs needed to fill a pegboard, matching the number of napkins needed to the number of children seated for snack).

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-olds' 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.

**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 prekindergarten experience** (when most, if not all, of the children would be five years of age).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

#### Teacher Tips

Mathematics is the study of quantities and their relationships.

#### 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.

#### A. Mathematical Thinking

##### a. Number Sense

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

Four-year-olds 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*. They are learning that *numerals* represent a number of objects, for instance that the *numeral* three represents three cookies, and need practice with concrete materials to reinforce this skill. At the same time, they are able to count many objects using *one-to-one correspondence*, though they may still count an object more than once.

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

Examples illustrating this benchmark include:

- passing out one napkin, one cup, one snack, or one 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
- drawing four figures to represent their family of four people.

**Supportive 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 in 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.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

#### Teacher Tips

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

#### 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).

#### A. Mathematical Thinking

##### a. Number Sense

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

Four-year-olds 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*. They are learning that *numerals* represent a number of objects, for instance that the *numeral* three represents three cookies, and need practice with concrete materials to reinforce this skill. At the same time, they are able to count many objects using *one-to-one correspondence*, though they may still count an object more than once.

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

**Examples illustrating this benchmark include:**

- 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 groups of (e.g., children, coins, crayons) to determine if they are equal.

**Supportive Instructional Strategies:**

- Provide materials that may be used for one-to-one matching activities (e.g., pegs and peg boards, nuts and bolts).
- 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.
- Count the number of boys and then girls in the group and compare the sets to determine if they are equal. Pictures can be drawn to notate each child on paper or a dry erase board, or the sets can stand side-by-side to compare.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

A.b.2.b., A.b.2.c.

#### Teacher Tips

For children to develop good mathematical knowledge, it is very important that teachers frequently use math-related language in conversation.

#### Environmental Considerations

Provide opportunities for children to compare, describe, and display quantities in the early learning *environment*.

#### A. Mathematical Thinking

##### a. Number Sense

##### 2. Shows understanding of how to count and construct *sets*

Four-year-olds have the ability to count objects. Most children this age understand that the last number named when counting a *set* represents the last object as well as the total number of objects (*cardinal number*). Constructing *sets* engages children in a meaningful counting experience using concrete objects found in the classroom or outdoors.

**Benchmark a:** Child counts sets in the range of 10 to 15 objects.

#### Examples illustrating this benchmark include:

- counting 13 boats and placing them in a group in the water table
- counting the correct number of items for a serving during snack time (e.g., The teacher says, "Everyone may have 12 oyster crackers for snack today.")
- counting and creating a pile of 14 sand toys in the sand box
- counting the 15 blocks used to build a tower.

#### Supportive Instructional Strategies:

- Plan activities every day that incorporate counting sets (e.g., counting the number of markers in a box, the number of pictures in a book, or the number of children in a line).
- Model counting sets of concrete objects (e.g., blocks in a tower or bears in a row).
- During large group time, model counting sets of objects (e.g., the total number of shoes with laces).
- Incorporate the counting of objects and sets of objects into projects, displaying evidence of counting activities in multiple ways (e.g., documentation panels, charts, photos, drawings).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### a. Number Sense

##### 2. Shows understanding of how to count and construct *sets*

Four-year-olds have the ability to count objects. Most children this age understand that the last number named when counting a *set* represents the last object as well as the total number of objects (*cardinal number*). Constructing *sets* engages children in a meaningful counting experience using concrete objects found in the classroom or outdoors.

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

**Examples illustrating this benchmark include:**

- sorting 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 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.

**Supportive 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).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### 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 fewer or if the two *sets* are equal. Four-year-olds 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 “fewer.”

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

#### Examples illustrating this benchmark include:

- 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.

#### Supportive 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, pinecones, small sticks, and rocks).
- At snack time, model counting out sets that are the same by counting out equal amounts of crackers with the children.
- Create teams by counting equal numbers of children in each group.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

Snack time offers opportunities for children to practice *one-to-one correspondence* (e.g., a child places an apple on each napkin).

#### Environmental Considerations

Create signs that display the number of children who may play in each *center*.

#### A. Mathematical Thinking

##### 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 fewer or if the two *sets* are equal. Four-year-olds 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 "fewer."

**Benchmark b:** Child compares two *sets* to determine if one *set* has more.

##### Examples illustrating this benchmark include:

- recognizing that one child has more cotton balls than another child
- saying that there are more pretzels than crackers on the tray
- *observing* that there are more boys than girls at school on a particular day.

##### Supportive Instructional Strategies:

- During small group, provide two *sets* of objects for children to compare and determine which *set* has more.
- During large group time, allow children opportunities to compare two *sets* of objects to determine if one *set* has more (e.g., comparing the number of boys and girls in the class).
- During *center* time, model comparing two *sets* of objects by counting to determine if one *set* has more.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

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.

#### 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.

#### A. Mathematical Thinking

##### 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 fewer or if the two *sets* are equal. Four-year-olds 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 "fewer."

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

#### Examples illustrating this benchmark include:

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

#### Supportive Instructional Strategies:

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



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

Appropriate language skills are required for children to express and justify mathematical thinking.

#### Environmental Considerations

Create an area in the classroom to display comparison charts and pictures.

#### A. Mathematical Thinking

##### 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 fewer or if the two *sets* are equal. Four-year-olds 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 “fewer.”

**Benchmark d:** Child determines one *set* of objects is a lot more than another *set* of objects.

#### Examples illustrating this benchmark include:

- figuring out that the amount of keys in a jar is a lot more than the amount of keys on the teacher’s keychain
- commenting that there are only a couple of trees on the playground and a lot more in the woods
- deciding who has a lot more if one child has five crayons and another child has 20 crayons.

#### Supportive Instructional Strategies:

- On the playground, provide two quantities of objects for children to compare to determine if one quantity is a lot more than another quantity (e.g., one group of 10 objects and one group of 30 objects).
- Take a nature walk to observe existing *sets* for children to compare (e.g., “We found 10 ants and only one butterfly on our walk today. We found a lot more ants than butterflies.”).
- Assist children in determining if one *set* of objects contains a lot more than another *set* of objects (e.g., during a field trip to the library, ask the children if they can guess how many books are in the entire library. Following their guesses, ask if there are more children in the class or more books in the library. After their responses, explicitly say, “The number of books in the library is certainly a lot more than the number of children in our class!”).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

#### Teacher Tips

Mathematical language is deeply imbedded in the learning and teaching of mathematics.

#### Environmental Considerations

Incorporate a variety of counting books throughout the classroom.

#### A. Mathematical Thinking

##### a. Number Sense

#### 4. Assigns and relates numerical representations among *numerals* (written), sets of objects, and number names (spoken) from zero to 10

As four-year-olds learn about counting objects, they begin to assign number words to *numerals* and *sets*. These number words add to the children's expanding vocabulary with daily exposure to counting *sets* and objects through meaningful experiences.

#### Examples illustrating this standard include:

- counting each object in a group of objects on a flannel board to determine the total number of objects and then placing the correct *numeral* (written) next to the group
- pointing to each block in a tower and assigning a number to each block to determine the total number of blocks
- pointing to each snack and assigning a number to each snack to determine the total number of snacks.

#### Supportive Instructional Strategies:

- Incorporate counting into everyday activities (e.g., counting the number of boys and the number of girls and then identifying which *numeral* (written) represents that amount).
- Model counting and using the appropriate number names (spoken) for the children during everyday activities (e.g., counting napkins for each during snack time).
- Encourage children to count objects (e.g., their fingers, toes, buttons on their shirt, stripes on a flag) and point out *numerals* (written) in the world around them.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### a. Number Sense

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

As they become more skilled at verbal/rote counting, four-year-olds are beginning to understand that numbers represent quantity. Most four-year-old children are able to count numbers orally up to 10. 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.**

#### Examples illustrating this benchmark include:

- counting aloud up to 15 using the correct number names
- chanting along with poems that count forward (e.g., "One, Two, Buckle My Shoe")
- Singing theme-related songs to the tune of "Ten Little Indians" (e.g., In fall, sing, "One little, two little, three little pumpkins...").

#### Supportive 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.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.c.

##### V. Cognitive Development and General Knowledge

A.b.2.c.

#### Teacher Tips

Children spontaneously count every day in the learning *environment*.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### a. Number Sense

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

As they become more skilled at verbal/rote counting, four-year-olds are beginning to understand that numbers represent quantity. Most four-year-old children are able to count numbers orally up to 10. 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 b:** Child counts up through 31 by understanding the *pattern* of adding by one, with teacher support and multiple experiences over time.

#### Examples illustrating this benchmark include:

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

#### Supportive Instructional Strategies:

- Count with the children as they string objects (e.g., cereal, beads) through a hole, counting through 31.
- Incorporate counting books (purchased or made with the children) into the classroom and classroom activities.
- 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).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.b.

#### Teacher Tips

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.

#### Environmental Considerations

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

### A. Mathematical Thinking

#### 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).

#### Examples illustrating this benchmark include:

- 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.").

#### Supportive 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 . . .").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.c.

#### Teacher Tips

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

#### 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).

#### A. Mathematical Thinking

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

##### Examples illustrating this benchmark include:

- 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?").

##### Supportive 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* position words.
- 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 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.").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.b., E.1.a.

#### V. Cognitive Development and General Knowledge

A.b.2.b., B.a.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### 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 help them to determine if there are more or fewer objects than before the addition or subtraction took place.

**Benchmark a:** Child indicates there are more when combining (adding) *sets* of objects.

##### Examples illustrating this benchmark include:

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

##### Supportive 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.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.b., E.1.a.

#### V. Cognitive Development and General Knowledge

A.b.2.b., B.a.2.

#### Teacher Tips

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*?").

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### 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 help them to determine if there are more or fewer objects than before the addition or subtraction took place.

**Benchmark b:** Child indicates there are less (fewer) when removing (subtracting) objects from a *set*.

##### Examples illustrating this benchmark include:

- 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, there are fewer in the *set*.

##### Supportive 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").



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### 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 meaningful real-world 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, four-year-olds 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 10.

**Examples illustrating this benchmark include:**

- 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." (Note: Teachers must assess the safety of using small objects with each group of students at a given point during the school year. Small objects could be used in teacher-directed small group experiences if deemed unsafe to leave in an independent-use *center*.)
- building a stack of five blocks and saying, "I have seven blocks" after adding two blocks to the *set* of five blocks.

**Supportive Instructional Strategies:**

- Incorporate songs, finger plays, and games that focus on adding *sets* of objects to equal a set no larger than 10.
- Talk with children about combining *sets* of objects to equal a set no larger than 10 (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 10 (e.g., combine (add) two markers to five markers and count the total number of markers).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

Numbers and operations are used for counting, adding, and subtracting.

#### Environmental Considerations

Provide opportunities and materials for children to write or draw about their mathematical creations in the math *center*.

#### A. Mathematical Thinking

##### 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 meaningful real-world 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, four-year-olds can begin to solve simple mathematical problems in concrete ways and offer basic explanations for their solutions.

**Benchmark b:** Child removes objects from a *set* no larger than 10.

#### Examples illustrating this benchmark include:

- removing two boats from a group of five boats and saying, "One, two, three – three boats left," while playing with friends
- commenting that there are only three flowers left after removing one flower from a group of four flowers on a flannel board
- telling a friend, "I have four cookies. I'm eating one. Now I have three cookies."

#### Supportive Instructional Strategies:

- Incorporate songs, finger plays, and games that focus on removing objects from a set no larger than 10 (e.g., Ten in a Bed, Five Little Birdies).
- Talk with children about removing objects from a set no larger than 10 (e.g., while playing in the sand table, say, "Look, I found five shells in the sand table. Then I gave two shells to a friend. How many shells do I have left?").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

Children have the potential and desire to learn mathematics.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### 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 meaningful real-world 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, four-year-olds can begin to solve simple mathematical problems in concrete ways and offer basic explanations for their solutions.

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

**Examples illustrating this benchmark include:**

- 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.

**Supportive Instructional Strategies:**

- Encourage children to ask questions.
- Uses charts, pictures, and other displays to show problem-solving steps and efforts.
- Draw 10 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.
- Count 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.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

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

#### 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*).

#### A. Mathematical Thinking

##### 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-olds are beginning to learn how to share. While developing their *interpersonal skills*, the mathematical concept of simple division becomes important. Separating a *set* into equal parts is easier for children when this skill is combined with *one-to-one correspondence* (e.g., If there are four pieces of pizza and four friends, each friend gets one piece of pizza.).

#### Examples illustrating this standard include:

- 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.

#### Supportive 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).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

V. Cognitive Development and General Knowledge

B.a.1.

#### Teacher Tips

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).

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### c. *Patterns* and *Seriation*

1. Understands characteristics of *patterns* and non-*patterns* and begins to reproduce them with at least two elements (e.g., red/blue, red/blue versus a non-*pattern* like a 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. They can be encouraged to find *patterns* in nature and in the classroom. *Patterns*, designs, and repeating arrangements of objects provide the opportunity for children to explore relationships between objects. As four-year-olds learn to recognize, “read,” and recreate *patterns* they are exploring concepts in math, science, the arts, and literacy. Noticing and commenting on *patterns* helps children learn to extend a *pattern* by figuring out what comes next.

**Benchmark a:** Child recognizes *patterns* and non-*patterns*.

Examples illustrating this benchmark include:

- noticing a friend’s shirt has a *pattern* of a blue stripe, then a white stripe, then another blue stripe and looking around the room for other *patterns* of stripes
- participating in movement and *music* games that make *patterns* with claps and sounds
- recognizing the *pattern* in a predictable book and saying the next line before turning the page
- singing songs, reciting poems (e.g., “B-I-N-G-O,” “Old McDonald,” “Tooty-Ta”).

**Supportive Instructional Strategies:**

- Use rhythm instruments to create a *pattern* (e.g. using rhythm sticks and tambourines, help children to alternate [sticks/tambourine/sticks/tambourine] to create a *musical pattern*. Then, have children create a non-*pattern*.)
- Draw attention to *patterns* in nature (e.g., ridges in tree bark, veins in leaves).
- Show children examples of *patterns* and non-*patterns* (e.g., beads, pegs, leaves, block structures).
- 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*).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### V. Cognitive Development and General Knowledge

B.a.1.

#### Teacher Tips

Identifying *patterns* helps children to learn about predicting and generalizing.

#### 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.

#### A. Mathematical Thinking

##### c. *Patterns* and *Seriation*

1. Understands characteristics of *patterns* and non-*patterns* and begins to reproduce them with at least two elements (e.g., red/blue, red/blue versus a non-*pattern* like a 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. They can be encouraged to find *patterns* in nature and in the classroom. *Patterns*, designs, and repeating arrangements of objects provide the opportunity for children to explore relationships between objects. As four-year-olds learn to recognize, “read,” and recreate *patterns* they are exploring concepts in math, science, the arts, and literacy. Noticing and commenting on *patterns* helps children learn to extend a *pattern* by figuring out what comes next.

**Benchmark b:** Child duplicates identical *patterns* with at least two elements.

Examples illustrating this benchmark include:

- 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.

**Supportive 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).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

B.1.

##### V. Cognitive Development and General Knowledge

A.a.1.a., A.c.1.a., A.c.1.b.

#### Teacher Tips

Identifying *patterns* helps children to learn about predicting and generalizing.

#### 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.

#### A. Mathematical Thinking

##### c. *Patterns* and *Serialization*

1. Understands characteristics of *patterns* and non-*patterns* and begins to reproduce them with at least two elements (e.g., red/blue, red/blue versus a non-*pattern* like a 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. They can be encouraged to find *patterns* in nature and in the classroom. *Patterns*, designs, and repeating arrangements of objects provide the opportunity for children to explore relationships between objects. As four-year-olds learn to recognize, "read," and recreate *patterns* they are exploring concepts in math, science, the arts, and literacy. Noticing and commenting on *patterns* helps children learn to extend a *pattern* by figuring out what comes next.

**Benchmark c:** Child recognizes *pattern units* (e.g., red/blue is the *pattern unit* of a red/blue/red/blue/red/blue *pattern*; dog/cat/cow is the *pattern unit* of a dog/cat/cow/dog/cat/cow *pattern*).

Examples illustrating this benchmark include:

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

**Supportive Instructional Strategies:**

- Create a display of visual *patterns* with children's arrangements of beads or pegs and ask, "What is the *pattern*?"
- Model 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 who 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 *pattern* (e.g., using fingers, beads, or sticks).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

B.1.

##### V. Cognitive Development and General Knowledge

A.a.1.a., A.c.1.a., A.c.1.b.

#### Teacher Tips

Share *patterning* and *seriation* ideas with parents:

- sorting toys at home when cleaning up
- sorting laundry
- setting the dinner table with forks and spoons
- planting flowers according to the *pattern* designed

#### Environmental Considerations

Provide a variety of manipulatives in the classroom that children may use to create *patterns*.

#### A. Mathematical Thinking

##### c. *Patterns* and *Seriation*

1. Understands characteristics of *patterns* and non-*patterns* and begins to reproduce them with at least two elements (e.g., red/blue, red/blue versus a non-*pattern* like a 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. They can be encouraged to find *patterns* in nature and in the classroom. *Patterns*, designs, and repeating arrangements of objects provide the opportunity for children to explore relationships between objects. As four-year-olds learn to recognize, “read,” and recreate *patterns* they are exploring concepts in math, science, the arts, and literacy. Noticing and commenting on *patterns* helps children learn to extend a *pattern* by figuring out what comes next.

**Benchmark d:** Child begins to independently produce *patterns* with at least two elements (e.g., red/blue, red/blue), with teacher support and multiple experiences over time.

Examples illustrating this benchmark include:

- creating a row of cars in the block area and indicating that it is a *pattern* (e.g., red car, blue car, red car, blue car)
- playing together with a friend to create a two-part clapping *pattern* (e.g., Children clap hands together, then clap with their friend’s hands, then clap together, then clap with their friend’s hands.)
- Lacing two sizes of beads to make a necklace (e.g., big bead, small bead, big bead, small bead, big bead, small bead, big bead, small bead).

**Supportive Instructional Strategies:**

- 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).
- Display *patterns* and non-*patterns* the children have created with a variety of materials (e.g., beads, pegs, leaves, photographs of block structures).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### V. Cognitive Development and General Knowledge

B.a.2., D.a.1.

#### Teacher Tips

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

#### 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.

#### A. Mathematical Thinking

##### c. *Patterns* and *Seriation*

#### 2. Sorts, orders, compares, and describes objects according to characteristics or attribute(s) (*seriation*)

Four-year-olds 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-olds begin to explain why they placed objects in a certain order. Ordering and comparing objects introduces children to the logic of mathematical thinking. Four-year-olds are now able to understand the concept of one object being bigger, smaller, heavier, or lighter compared to another object. Making comparisons is a big part of math and science, the arts, social studies, and literacy. The growing expressive vocabulary of four-year-olds allows them to use terms like “more,” “bigger,” “softer,” and “heavier” to describe the differences between objects. Putting objects in order based on their characteristics is a difficult skill, and children need many opportunities to experiment, solve problems, and explore objects in this way, independently and with teacher involvement.

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

Examples illustrating this benchmark include:

- 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.

**Supportive 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).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

C.2.a.

#### Teacher Tips

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

#### Environmental

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

#### A. Mathematical Thinking

##### c. *Patterns and Seriation*

##### 2. Sorts, orders, compares, and describes objects according to characteristics or attribute(s) (*seriation*)

Four-year-olds 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. Four-year-olds are now able to understand the concept of one object being bigger, smaller, heavier, or lighter compared to another object. Making comparisons is a big part of math and science, the arts, social studies, and literacy. The growing expressive vocabulary of four-year-olds allows them to use terms like “more,” “bigger,” “softer,” and “heavier” to describe the differences between objects. Putting objects in order based on their characteristics is a difficult skill, and children need many opportunities to experiment, solve problems, and explore objects in this way, independently and with teacher involvement.

**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.

##### Examples illustrating this benchmark include:

- 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.

##### Supportive 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*).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### Language, Communication, and Emergent Literacy

C.2.b.

#### Teacher Tips

Sorting shapes is an easier skill than naming shapes.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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.

**Examples illustrating this benchmark include:**

- 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.

**Supportive 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 and ask the children to sort a variety of shapes from a pile by placing them in the correct container.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.c.

#### Teacher Tips

Once children identify basic shapes, it is important to introduce less familiar shapes (e.g., *trapezoid*).

#### Environmental Considerations

Provide a variety of books, tapes, and CDs with math-related concepts for individual and group listening.

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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 b:** Child names two-dimensional shapes.

**Examples illustrating this benchmark include:**

- searching for paper *circles* to represent balls for artwork (e.g., "I need *circles* because I am juggling balls in this picture.")
- pointing out and naming shapes found while on a walk around the neighborhood (e.g., a building's face that is square, a yield sign that is triangular, a brick walkway made up of rectangular surfaces).

**Supportive Instructional Strategies:**

- Provide a variety of two-dimensional shapes in the classroom and many opportunities for children to play with them.
- Display two-dimensional shapes in the classroom and describe how they are the same and different.
- Play "I Spy" in the classroom and on the playground with children by naming a shape and having children find it.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

Block constructions and *gross motor* activities help children learn about spatial relations.

#### Environmental

**Considerations** Create inviting work areas and spaces with interesting materials indoors and outdoors (e.g., Legos, bristle blocks, waffle blocks).

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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 c:** Child constructs examples of two-dimensional shapes.

**Examples illustrating this benchmark include:**

- making various shapes from popsicle sticks
- using clay to construct shapes of different sizes.

**Supportive Instructional Strategies:**

- Provide clay with which children can create shapes.
- Demonstrate making a triangle (and other shapes with sides) using popsicle sticks, straws, or toothpicks and encourage children to make their own.
- Use colored masking tape to create shapes on the floor or use sidewalk chalk outside to do the same, encouraging children to create shapes as well.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.c.

#### Teacher Tips

Children learn about different shapes as they describe everyday objects in their *environment*, draw or cut out shapes, and build with blocks.

#### Environmental Considerations

Create a class book that includes photos of the children acting out a variety of positional words and include the book in the classroom library.

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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 d:** Child identifies the number of sides of two-dimensional shapes.

**Examples illustrating this benchmark include:**

- determining that a *square* has four sides by examining the shape
- counting the sides of a *triangle*
- telling a friend that a *circle* doesn't have any sides
- telling the teacher, "Look, we used three friends to make a life size *triangle!*"

**Supportive Instructional Strategies:**

- Provide round objects for children to examine.
- Provide triangular objects and other two-dimensional shapes for children to examine and count the number of sides.
- Create large shapes using tape or chalk and have children position their bodies on each line to represent the sides of each shape. Let the children count the number of sides and the number of children each shape took to construct.
- Provide a "feely box" with a variety of differently shaped objects and have the children choose one and identify the shape and the number of sides.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

Preschool block play is related to middle and high school math performance.

#### Environmental Considerations

Include ample space in the classroom to post photographs, project work, and materials that highlight children's mathematical skills (e.g., sorting and grouping, recognizing *patterns* and relationships, understanding spatial relations, and comparing and measuring objects).

#### A. Mathematical Thinking

##### d. Geometry

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

A shape always remains the same shape and keeps the same name regardless of how it is positioned, unlike letters or *numerals* (written). Four-year-olds are beginning to understand this, but need a lot of teacher guidance.

**Benchmark a:** Child slides shapes, with teacher support and multiple experiences over time.

#### Examples illustrating this benchmark include:

- sliding a shape across the floor or table, with teacher support, and recognizing that the shape remains the same.

#### Supportive Instructional Strategies:

- Play Simon Says with children and provide instructions that have children slide shapes and then state the name of the shape.
- Demonstrate sliding a *triangle* across the table and stating that the *triangle* is still a *triangle* no matter where it is on the table.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

Geometry describes the shapes of objects and their relative positions in the *environment*.

#### Environmental Considerations

Provide time for children to talk about *planning*, building, and sharing their block structures.

#### A. Mathematical Thinking

##### d. Geometry

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

A shape always remains the same shape and keeps the same name regardless of how it is positioned, unlike letters or *numerals* (written). Four-year-olds are beginning to understand this, but need a lot of teacher guidance.

**Benchmark b:** Child flips shapes, with teacher support and multiple experiences over time.

**Examples illustrating this benchmark include:**

- flipping a shape, with teacher support, and recognizing that the shape remains the same.

**Supportive Instructional Strategies:**

- Play Simon Says with children and provide instructions that have children flip shapes and then name the shape.
- Demonstrate flipping a shape and stating that it remains the same shape no matter which way it is flipped.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### d. Geometry

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

A shape always remains the same shape and keeps the same name regardless of how it is positioned, unlike letters or *numerals* (written). Four-year-olds are beginning to understand this, but need a lot of teacher guidance.

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

**Examples illustrating this benchmark include:**

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

**Supportive 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.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.2.b.

#### Teacher Tips

Teachers can read books about mathematical concepts during large group time.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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.

Examples illustrating this benchmark include:

- 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.

**Supportive 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*.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.c.

#### Teacher Tips

Block building can help children learn important spatial relationships.

#### 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.

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds 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 b:** Child names three-dimensional shapes.

**Examples illustrating this benchmark include:**

- 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* (e.g., *cone*-shaped).

**Supportive 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.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

Meaningful, hands-on block play allows many opportunities for *exploration* and the development of higher-level mathematical skills.

#### Environmental Considerations

Provide children with access to a variety of blocks, interesting building materials, and micro *dramatic play* props (e.g., people, animals, vehicles) indoors and outdoors.

#### A. Mathematical Thinking

##### d. Geometry

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

Four-year-olds have a lot of knowledge about their bodies, which have *symmetry*. Through hands-on experiences with concrete objects, children begin to understand that they can use various shapes to create *symmetry*.

#### Examples illustrating this standard include:

- cutting a snowflake shape on a coffee filter, opening it, and determining that the design is symmetrical
- sorting various pictures of people, animals, nature, and buildings according to *symmetry* and non-*symmetry*
- creating symmetrical figures using *pattern* blocks or parquetry blocks.

#### Supportive Instructional Strategies:

- Ask children to place their palms together and then open their hands side-by-side to demonstrate *symmetry*.
- Place a mirror beside a picture that a child drew to demonstrate *symmetry*.
- Show pictures of a butterfly and talk about how the two sides of their bodies are the same.
- Have children construct a form using blocks, then reconstruct the form to make it symmetrical.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

C.1.a.

V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

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

#### 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.

#### A. Mathematical Thinking

##### e. Spatial Relations

##### 1. Shows understanding of spatial relationships and uses position 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. Concepts of *spatial sense* and vocabulary development are closely connected. As four-year-olds continue to develop a sense of their position in relation to objects and people around them, they are increasingly able to describe their position using language. They can understand "in front of," "behind," "under," and "above" and are beginning to use these and other positional words in their language. Further examples include playing movement games that incorporate position words (e.g., Hokey Pokey and Simon Says), arranging doll furniture in a doll house and describing what they are doing (e.g., "I am putting the bed next to the rocking chair"), building block structures that are enclosed and then putting animal figures "inside the zoo cages," and telling friends, "put the shovels and scoops into the basket" or "put the lid on top of the water table" when cleaning up the playground.

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

##### Examples illustrating this benchmark include:

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

##### Supportive Instructional Strategies:

- Use position words when giving children directions (e.g., "Stand beside me," "Put the cup under the cabinet.").
- Give the children a task using positional words (e.g., "Go below the table," "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.").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

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

#### V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

*Expressive language* is important in showing understanding of mathematical thinking.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### e. Spatial Relations

##### 1. Shows understanding of spatial relationships and uses position 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. Concepts of *spatial sense* and vocabulary development are closely connected. As four-year-olds continue to develop a sense of their position in relation to objects and people around them, they are increasingly able to describe their position using language. They can understand "in front of," "behind," "under," and "above" and are beginning to use these and other positional words in their language. Further examples include playing movement games that incorporate position words (e.g., Hokey Pokey and Simon Says), arranging doll furniture in a doll house and describing what they are doing (e.g., "I am putting the bed next to the rocking chair"), building block structures that are enclosed and then putting animal figures "inside the zoo cages," and telling friends, "put the shovels and scoops into the basket" or "put the lid on top of the water table" when cleaning up the playground.

**Benchmark b:** Child uses the positional terms verbally (expressive knowledge) (e.g., in front of, behind, between, over, through, under), with teacher support and multiple experiences over time.

#### Examples illustrating this benchmark include:

- 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*.").

#### Supportive Instructional Strategies:

- Ask children where a specific object is and prompt them to use positional words in their answers.
- 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.").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

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

#### V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

While free play is very important, the teacher should *scaffold* and intentionally interact with children to build their knowledge.

#### Environmental Considerations

Display examples of simple graphs in the classroom.

#### A. Mathematical Thinking

##### e. Spatial Relations

#### 2. Describes *relative position from different perspectives* (e.g., "I am on top of the climber and you are below me.")

Once four-year-olds have receptive knowledge of positional words, they can begin to use them in interactions with their friends (e.g., to describe play, describe what they would like their friend to do, or explain things).

#### Examples illustrating this standard include:

- telling a friend that they hid the treasure beneath the wagon
- verbalizing positions as they work and play with others
- explaining that they are below the slide and their friend is on top of the slide.

#### Supportive Instructional Strategies:

- During outside play, observe and/or prompt the children to explain the *relative position from different perspectives* when they are climbing on the equipment.
- While transitioning to *centers*, ask a child to incorporate *relative position from different perspectives* (e.g., "I am sitting next to Blake and he is beside Monique.").
- Play Simon Says with children and provide instructions that have children get on top of the slide or walk under the slide.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

V. Cognitive Development and General Knowledge

B.a.2., C.b.1.

#### Teacher Tips

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

#### 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?).

#### A. Mathematical Thinking

##### e. Spatial Relations

##### 3. Understands and can tell the difference between *orientation* terms (e.g., horizontal, diagonal, 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.

##### Examples illustrating this standard include:

- making their arms or bodies represent *orientation* terms (e.g., horizontal, diagonal, vertical) in a game of Simon Says
- using materials (e.g., yarn, popsicle sticks, paper, crayons) to replicate *orientation* terms (e.g., horizontal, diagonal, vertical) while working on an art project
- describing a block structure using *orientation* terms while building
- indicating that the letter "T" has a horizontal line and a vertical line while attempting to write the letter.

##### Supportive Instructional Strategies:

- Ask children 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).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.1., C.2.

##### IV. Language, Communication, and Emergent Literacy

C.d.1.

#### Teacher Tips

*Gross motor* activities help children develop *spatial sense*.

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### e. Spatial Relations

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

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

#### Examples illustrating this standard include:

- 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.

#### Supportive 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).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

A.1., B.1., C.1.

#### III. Social and Emotional Development

A.b.1., A.b.2.

#### IV. Language, Communication, and Emergent Literacy

C.1.b., C.2.c.

#### V. Cognitive Development and General Knowledge

A.a.3., A.f.2.a., A.f.2.b., A.f.2.c., A.f.2.d., A.f.3.a., A.f.3.b., A.f.3.c., B.a.2.

#### Teacher Tips

The concept of measurement allows for exploring and evaluating items and areas of interest (e.g., block, room, cooking oil, etc.).

#### Environmental Considerations

Provide a variety of manipulatives in the classroom that children may use as units of standard and non-standard measurement.

#### A. Mathematical Thinking

##### f. Measurement

##### 1. Engages in activities that explore measurement

Four-year-olds sort and categorize all sorts of things, and measurement is an extension of that categorizing. They begin to compare differences in the quantity of what is being measured through interesting hands-on activities. Measurement skills are important for four-year-olds to develop, and four-year-olds enjoy experimenting with standard and non-standard measurement tools. They love to use rulers, large tape measures and balance scales, but they can also use their hands or feet to measure. Both child-*initiated* and adult-led experiences with measurement activities support the development of this math concept.

##### Examples illustrating this standard include:

- walking heel-to-toe across the large group rug and exclaiming “This rug is 14 feet long!”;
- using measuring cups and spoons in the sand box to count how many scoops it takes to fill a bowl;
- laying cutouts of their hand shape end-to-end to measure the height of objects around the classroom;
- exploring a sand timer the teacher is using to time clean-up activities.

##### Supportive Instructional Strategies:

- Plan activities during outside play for children to measure the distance between objects (e.g., number of hops between the swing and slide or the number of “feet” walking heel-to-toe from the water fountain to the bench).
- Provide measuring cups and spoons in the sand box for children to count how many scoops it takes to fill a bowl.
- Plan activities for children to use non-standard measurement tools to measure items around the room (e.g., pieces of yarn, string, blocks).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

A ruler or a yardstick is a standard reference for length.

#### Environmental Considerations

Although standard references can be introduced in the classroom, adults should not expect young children to accurately use them, as they are more abstract than non-standard references.

#### A. Mathematical Thinking

##### f. Measurement

##### 2. Compares continuous quantities using length, weight, and height

Four-year-olds sort and categorize all sorts of things, and measurement is an extension of that categorizing. They begin to compare differences in the quantity of what is being measured through interesting hands-on activities.

**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.

#### Examples illustrating this benchmark include:

- measuring the length of the classroom using blocks
- measuring the length of a table using their hands
- comparing the length of a shoe with another child's shoe.

#### Supportive Instructional Strategies:

- Demonstrate how to measure the length of a piece of paper using pencils.
- Show children how to measure length by using blocks to measure the bookshelf.
- Provide plastic links or paper clips and items to measure (e.g., shoe, friend's hand, baby doll, spoon, block).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### f. Measurement

#### 2. Compares continuous quantities using length, weight, and height

Four-year-olds sort and categorize all sorts of things, and measurement is an extension of that categorizing. They begin to compare differences in the quantity of what is being measured through interesting hands-on activities.

**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.

#### Examples illustrating this benchmark include:

- 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. (Note: Teachers must assess the safety of using small objects with each group of students at a given point during the school year. Small objects could be used in teacher-directed small group experiences if deemed unsafe to leave in an independent-use *center*.)

#### Supportive 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.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### V. Cognitive Development and General Knowledge

C.b.1.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### f. Measurement

#### 2. Compares continuous quantities using length, weight, and height

Four-year-olds sort and categorize all sorts of things, and measurement is an extension of that categorizing. They begin to compare differences in the quantity of what is being measured through interesting hands-on activities.

**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.

#### Examples illustrating this benchmark include:

- measuring the height of the table using *cubes* or plastic links
- 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."

#### Supportive Instructional Strategies:

- Measure children's height on a wall chart monthly, and talk about how much each child grew from one month to the next.
- 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.").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

IV. Language, Communication, and Emergent Literacy

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

#### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### f. Measurement

##### 2. Compares continuous quantities using length, weight, and height

Four-year-olds sort and categorize all sorts of things, and measurement is an extension of that categorizing. They begin to compare differences in the quantity of what is being measured through interesting hands-on activities.

**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.

##### Examples illustrating this benchmark include:

- 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, adding a cotton ball to one side and a ball of playdough to the other side and noting that the playdough 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.

##### Supportive Instructional Strategies:

- Use string to measure common objects in the classroom with a small group of children (e.g., table, water table, crib, sink). Label each piece of string with a picture of what is measured. Then put the objects in order and discuss differences using measurement terminology.
- Place different classroom objects in either side of a simple scale with a basket on either side. Use vocabulary to describe which is heavier and lighter. After practice, ask children to predict which object will be heavier.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### II. Approaches to Learning

A.1., D.1.

##### III. Social and Emotional Development

A.b.2., B.b.1., B.c.1.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

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

#### Environmental Considerations

Provide children with containers for sorting materials to be *analyzed*.

#### A. Mathematical Thinking

##### f. Measurement

#### 3. 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.

#### Examples illustrating this benchmark include:

- 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).

#### Supportive Instructional Strategies:

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

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### II. Approaches to Learning

A.1., D.1.

##### III. Social and Emotional Development

A.b.2., B.b.1., B.c.1.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

Creating charts and graphs helps children attach meaning to number.

#### 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.

#### A. Mathematical Thinking

##### f. Measurement

##### 3. 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 b:** Child works with teacher and small groups to represent mathematical relations in charts and graphs.

#### Examples illustrating this benchmark include:

- assisting in making a bar graph depicting the number of children at school each day
- creating a graph depicting the 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.

#### Supportive Instructional Strategies:

- Work with a small group of children to sort blocks by color and then create a bar graph to show 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) and charts (e.g., pie charts) by charting and graphing regularly (e.g., favorite foods, voting on a class pet's name, the first letter that each person's name starts with, the number of people in one's immediate family, the number of boys and girls at school today) .



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### II. Approaches to Learning

A.1., D.1.

##### III. Social and Emotional Development

A.b.2., B.b.1., B.c.1.

##### V. Cognitive Development and General Knowledge

B.a.2.

#### Teacher Tips

When children describe physical properties of objects, (e.g., weight, width, length, area, and volume), they are using measurement concepts.

#### Environmental Considerations

Use child-produced art, clip art, or photographs on the graph to help children "read" it.

#### A. Mathematical Thinking

##### f. Measurement

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

#### Examples illustrating this benchmark include:

- determining, with teacher support, which color of leaves was found most often
- determining, through discussions with friends, if they had the most small, medium, or large cars
- recognizing, with teacher support, that they have the least number of square blocks by "reading" the chart.

#### Supportive Instructional Strategies:

- Encourage children to make *predictions* by asking questions about a chart or graph made.
- Create a chart that shows the favorite insect of each child and discuss which insect is the favorite of the class and which insect is the least favorite.
- Ask children questions about data in a graph once it is complete to determine their level of understanding (e.g., Are there more boys or more girls here today? How do you know?).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### III. Social and Emotional Development

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

#### IV. Language, Communication, and Emergent Literacy

E.1.a.

#### Teacher Tips

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

#### Environmental Considerations

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

#### A. Mathematical Thinking

##### f. Measurement

#### 4. Child predicts the results of a data collection, with teacher support and multiple experiences over time.

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.

#### Examples illustrating this standard include:

- 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 think red will have the most votes," before the class makes a chart of favorite colors.

#### Supportive 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.

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# V. COGNITIVE DEVELOPMENT & GENERAL KNOWLEDGE

## B. Scientific Inquiry



V. COGNITIVE DEVELOPMENT &  
GENERAL KNOWLEDGE  
B. Scientific Inquiry





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# OVERVIEW OF SCIENTIFIC INQUIRY STANDARDS

## **B. Scientific Inquiry**

### **a. Investigation and Inquiry**

1. Demonstrates the use of simple tools and equipment for observing and investigating
2. Examines objects and makes comparisons

### **b. Physical Science**

1. Explores the physical properties and creative use of objects or matter

### **c. Life Science**

1. Explores growth and change of living things
2. Identifies the characteristics of living things
3. Identifies the five senses and explores functions of each

### **d. Earth and Space**

1. Explores the outdoor environment and begins to recognize changes (e.g., weather conditions) in the environment, with teacher support and multiple experiences over time
2. Discovers and explores objects (e.g., rocks, twigs, leaves, seashells) that are naturally found in the environment

### **e. Environmental Awareness**

1. Demonstrates ongoing environmental awareness and responsibility (e.g., reduce, reuse, recycle), with teacher support and multiple experiences over time

## SCIENTIFIC INQUIRY INTRODUCTION

**Scientific inquiry** is the second component and is composed of five areas in which four-year-olds demonstrate scientific **inquiry** skills: **investigation and inquiry**, **physical science**, **life science**, **earth and space**, and **environmental awareness**. Children are natural investigators and their levels of understanding deepen over time with varied experiences. Teachers should capitalize on children's **curiosity** during play and encourage discussion and expression of their ideas as they examine scientific activities (e.g., rolling a ball or car, water table **explorations**, engineering and building during block play, and small group cooking activities).

The first area, **investigation and inquiry** is demonstrated when children ask questions, use simple tools, and make comparisons. When adults respond to children's questions, inquisitiveness and scientific thinking are fostered. The natural world and physical events are fascinating to four-year-olds. **Physical science**, the second area, helps children to understand and make sense of their world. **Life science**, the third area, identifies children's increasing abilities to explore growth and change of living things. The fourth area, **Earth and space**, focuses on understanding things naturally found in our **environment**. **Environmental awareness**, the fifth area, is demonstrated as four-year-olds begin to show awareness of their **environment**.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2.

##### V. Cognitive Development and General Knowledge

A.f.3.a., A.f.3.b., A.f.3.c., A.f.3.d., C.a.3., C.c.1.

#### Teacher Tips

Teachable moments provide the most meaningful learning experiences for children and create a springboard for teachers to plan instruction and to focus on children's interests.

#### Environmental Considerations

Include a variety of tools for supervised use and *exploration* indoors and outdoors (e.g., magnifiers, thermometers, scales, pulleys and wheels, flashlights, workshop tools, kitchen tools, prisms, telescopes, kaleidoscopes, and metal mirrors).

#### B. Scientific *Inquiry*

##### a. *Investigation and Inquiry*

##### 1. Demonstrates the use of simple tools and equipment for *observing* and *investigating*

Four-year-old children are able to use simple tools in their *explorations*. Magnifiers, balance scales, rulers, and tweezers help children investigate objects more closely. When these tools are available in various areas of the classroom, children incorporate them naturally into their play.

#### Examples illustrating this standard include:

- seeking out a pair of binoculars to look at a bird on the playground
- using a magnifying glass to look at the differences in rocks or leaves
- using a dropper to drop water on a paper towel and observe how the water is absorbed
- using a magnet to find out which objects have magnetic attraction
- using a funnel in a water bottle to pour water from a cup into a bottle.

#### Supportive Instructional Strategies:

- Provide opportunities to examine how tools work (e.g., pulleys).
- Provide woodworking tools in *discovery* areas, allowing children supervised opportunities to work with the tools.
- Provide soft pieces of wood, small hammers, and a variety of nails that can be used to create three-dimensional structures.
- Choose interesting science-related experiments that use tools during small group instruction (e.g., tie-dye butterflies using coffee filters, colored water, and droppers; provide magnifying glasses to look closely at things collected from a nature walk such as leaves, rocks, sticks, or a caterpillar).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

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

#### V. Cognitive Development and General Knowledge

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

#### Teacher Tips

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

#### Environmental Considerations

Provide a variety of books about nature and science.

#### B. Scientific Inquiry

##### a. *Investigation and Inquiry*

#### 2. Examines objects and makes comparisons

Scientific *inquiry* involves asking questions, *observing* and making comparisons. Four-year-olds make comparisons when they notice how objects and events are related and use their growing language skills to describe a relationship they observe. Experiences with varied materials and opportunities to try things out and see how things work help children understand concepts of same and different and draw comparisons among objects in their world.

#### Examples illustrating this standard include:

- using *comparative terminology*, verbally or by signing, to compare two or more objects (e.g., "This bucket is heavier than that one"; "This ball is bigger than these other two balls"; "A rock is heavier than a feather.")
- using descriptive terminology, verbally or by signing, to describe objects (e.g., "This rock is hard and smooth, and that rock is hard and very bumpy." "Cotton is soft and a wooden block is hard.")
- discussing and comparing which items sink and which items float in the water table.

#### Supportive Instructional Strategies:

- Provide a variety of nature objects (e.g., shells, rocks, seeds) to examine and compare using all the senses.
- Use every day events (e.g., weather, birds gathering at the bird feeder) to help children learn about nature.
- Prepare for special visitors or field trips by generating questions beforehand and charting answers after the event.
- Start an herb garden in pots to compare how the leaves look, smell, feel, and taste.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Matter is anything that has both mass and volume (e.g., sand, water, chairs, people).

#### Environmental Considerations

Provide a variety of everyday natural and recycled materials to help children learn about the properties of items in their *environment*.

#### B. Scientific *Inquiry*

##### b. *Physical Science*

##### 1. Explores the physical properties and creative use of objects or matter

Children are naturally curious and like to explore their surroundings. Through simple experiments and play with everyday natural and recycled materials, children begin to learn about the properties of items in their *environment*.

#### Examples illustrating this standard include:

- making gelatin to show that matter changes from a liquid to a solid
- melting ice to show how solids change to a liquid
- shaking different items in empty water bottles (rice, macaroni, beans, cotton, cut straws, pennies, water, sand) and listening to the sounds they make
- playing with recycled objects and creating new uses for the objects.

#### Supportive Instructional Strategies:

- Provide an opportunity for children to investigate and describe the taste (e.g., sweet, salty, bitter) and texture (e.g., salt is grainy, oil is slippery) of materials during cooking projects.
- Provide opportunities in the science *center* for children to explore sounds made with various items and containers.
- Provide a variety of objects for children to sort, group, or classify in meaningful ways based on one or more properties (e.g., hard/soft, heavy/light, wood/plastic, color, size, texture).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Invite a parent in to talk about their gardens and/or pets and bring in living examples.

#### Environmental Considerations

Expose children to a variety of materials illustrating how living things change over time, including books, poetry, pictures, plants, and animals.

#### B. Scientific Inquiry

##### c. Life Science

##### 1. Explores growth and change of living things

Four-year-olds understand that they are growing and becoming bigger. They also understand that other living things, plants and animals, grow and have a life cycle. Experiences with home or classroom pets, indoor plants, or a classroom garden, as well as with other ages of children and adults are excellent opportunities to compare and discuss how living things change over time.

#### Examples illustrating this standard include:

- **observing** similarities and differences when viewing pictures of themselves, beginning in infancy
- **investigating** and comparing a variety of living things to determine their needs and how they change over time
- exploring and comparing a variety of plants to observe and measure how quickly they grow and change over specific time periods
- commenting on the changes they **observe** as caterpillars grow, change into chrysalises, and emerge as butterflies.

#### Supportive Instructional Strategies:

- Provide numerous plants and animals to be housed in the science **center** of the classroom to allow children to observe of changes over time.
- Provide opportunities for children to explore and focus on a few specific living things that will allow them to note changes that occur (bring in baby pictures/compare with current pictures; record height and weight of children and compare to when they were babies; keep mealworms, caterpillars, or other living things in the classroom and observe changes over time; visit a farm to see baby animals and adult animals).
- Use classroom experiences like reading books and poetry to allow children to communicate their understanding of how living things grow and change.
- Create dramatizations of books and poems depicting how living things grow and change.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Children are naturally curious about the life cycle and would enjoy **observing** the hatching of a baby chick or the development of a butterfly from a caterpillar.

#### Environmental Considerations

Expose children to a variety of materials illustrating how living things change over time, including books, poetry, pictures, plants, and animals.

#### B. Scientific *Inquiry*

##### c. *Life Science*

#### 2. Identifies the characteristics of living things

Studying *life science* offers personal fulfillment and excitement - benefits that should be shared by everyone. Exploring living things, what they look like, how they move, and the sounds they make strengthens love of nature and helps develop a desire to care for nature's gifts to us.

#### Examples illustrating this standard include:

- **observing** similarities and differences among living things, including plants, animals, and humans (e.g., discussing parts of plants, kinds of insects, comparing animals with fur and feathers, identifying parts of the human body)
- **investigating** and comparing the needs of living things (e.g., discussing what plants need to thrive, the different kinds of *environments*)
- exploring and comparing the effects of sunlight and/or water on plants (e.g., **observing** plants and the way they grow).

#### Supportive Instructional Strategies:

- Grow vegetables or herbs from seeds (e.g., Place a lima bean in a plastic sandwich bag with a wet paper towel. Tape the bag on a window or clipped across a string and have children observe the bag daily. Observe how the roots grow down to anchor the plant in the ground and how the stems grow up toward the sun. Have children use a dropper to keep the paper towel moist.).
- Observe the life cycle and metamorphosis of animals over time in the classroom (e.g., a caterpillar changes to a butterfly, a tadpole changes to a frog, and a mealworm changes to a beetle).
- Use pictures or stories that illustrate animals and their babies to discuss that living things grow and change.
- Provide opportunities for children to investigate the characteristics of plants and animals in their natural habitat and in the classroom over time, to help children develop respect and a caring attitude toward living things.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Involve grandparents in the classroom by having them come in and share their favorite food or hobby (e.g., knitting). Ask the children to tell which senses would be used to complete the different tasks.

#### Environmental Considerations

Provide a variety of objects within the classroom that will allow children to explore their five senses.

#### B. Scientific Inquiry

##### c. Life Science

#### 3. Identifies the five senses and explore functions of each

Children enjoy learning through hands-on experiences that involve their senses. Through engaging opportunities, children begin to identify their five senses (e.g., sight, taste, touch, hearing, smell) and which sense(s) are used for different tasks.

#### Examples illustrating this standard include:

- tasting a piece of orange and lemon and talking about sweet and sour, understanding that the tongue is the organ involved in taste
- with eyes closed, smelling different items to experience the sense of smell (e.g., cinnamon, fresh-cut grass, oranges, lotions, peppermint)
- discussing textures felt through the sense of touch (e.g., using playdough, marbles in water, glue, felt, feathers, sandpaper) (Note: Teachers must assess the safety of using small objects with each group of students at a given point during the school year. Small objects could be used in teacher-directed small group experiences if deemed unsafe to leave in an independent-use *center*.)
- making various sounds (e.g., bells, chimes, symbols, blocks, door closing, stomping, whistle) and using the sense of hearing to distinguish differences.

#### Supportive Instructional Strategies:

- Challenge children to use their senses to complete specific tasks (e.g., use sense of sight to locate something pink in the classroom; use sense of smell to show where the scented candle is; use sense of taste to determine your favorite food at lunch; use sense of hearing to know when to clean up; use sense of touch to find a specific toy without looking).
- Provide a *discovery* box of various materials that allow children to explore their five senses (e.g., smelling jars, blindfolds, touch boxes, Braille books).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Invite a meteorologist to come to school to talk about the weather.

#### Environmental Considerations

Include a weather chart in the classroom to record the weather each day.

#### B. Scientific *Inquiry*

##### d. Earth and Space

1. Explores the outdoor *environment* and begins to recognize changes (e.g., weather conditions) in the *environment*, with teacher support and multiple experiences over time

Children notice changes in the outdoor *environment*, but teachers can help support their growing understanding by collecting information about daily changes and involving children through *observing*, discussing, and hypothesizing on the impact of change.

#### Examples illustrating this standard include:

- illustrating various weather conditions while teacher takes dictation describing the children's illustrations
- *observing* cloud formations
- comparing a variety of weather conditions (e.g., windy, rainy, cloudy, sunny)
- charting the temperature for several days and guessing (predicting) the current temperature

#### Supportive Instructional Strategies:

- Post a weather chart to record the weather each day (e.g., hot, cold, sunny, rainy, windy, foggy), using children as helpers in filling out the chart.
- On a rainy day, collect rainwater in a cup and measure how much rain was collected.
- Place an outdoor thermometer where it can be easily seen. Record the daily temperature, making a graph over time.
- Provide opportunities for children to explore natural energy of sunlight and its connection with living and non-living things. (e.g., Heat is generated by sunlight. Plants need sunlight and water to live. Shadows can affect living things.).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

List items found on scavenger hunt and then sort by type.

#### Environmental Considerations

Include a variety of objects from the natural *environment* in the science *center* (e.g., rocks, leaves, sand, shells, pinecones, dirt).

#### B. Scientific *Inquiry*

##### d. Earth and Space

#### 2. Discovers and explores objects (e.g., rocks, twigs, leaves, seashells) that are naturally found in the *environment*

Children have unique opportunities to explore objects in the natural *environment*. Sand, pebbles, rocks, leaves, moss, shells, and other artifacts provide a context for interesting conversation and comparisons of naturally occurring items.

#### Examples illustrating this standard include:

- going on a rock hunt and comparing the sizes, shapes, and weights of the rocks, as children describe the physical properties (e.g., size, shape, color, texture) of the rocks
- adding water to sand and discussing how the physical properties change
- exploring practical, creative, and real-life ways that objects from nature (e.g., rocks, sticks, leaves, acorns, pinecones, sand, shells) can be used in daily classroom life.

#### Supportive Instructional Strategies:

- During a nature walk, work with the class to collect natural things in the *environment* (e.g., leaves, rocks, dirt, pinecones, shells).
- Ask children to compare natural items (e.g., leaves, rocks, dirt, pinecones, shells) and describe how the objects look and how they feel.
- Hide natural objects in a sandbox or sand table and have children find and then sort them by specified categories (e.g., smooth/rough, hard/soft, light/dark).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1.

##### IV. Language, Communication, and Emergent Literacy

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

#### Teacher Tips

Involve parents in a recycling campaign, bringing awareness to children and parents.

#### Environmental Considerations

Include a recycling bin in the classroom that children may use to reinforce *environmental awareness*.

#### B. Scientific *Inquiry*

##### e. *Environmental Awareness*

1. Demonstrates ongoing *environmental awareness* and responsibility (e.g., reduce, reuse, recycle), with teacher support and multiple experiences over time

Four-year-olds are interested in the world around them, including the natural world. Their *curiosity* about plants, animals, and the general *environment* (e.g., water, soil, shells, weather) can be used to introduce children to *environmental awareness*.

#### Examples illustrating this standard include:

- showing an interest in *environmental* projects like recycling
- putting trash in the garbage rather than throwing it on the ground
- helping to keep the playground clean as a way to take care of their personal *environment*.

#### Supportive Instructional Strategies:

- Discuss conserving energy and water and encourage children to turn off the water while brushing their teeth and to turn off the lights when leaving the classroom.
- Explore *environmental* issues in your own area and your own school. Create *environmental* projects that may include recycling and gardening.
- Discuss where garbage goes after it is discarded and invite guest speakers or go on field trips to learn more about recycling and waste management. Discuss how items are recycled at home.
- If food is served for snack or meals, help create a compost area and allow the children to place the appropriate food in a container to take to the compost site. Use the composted soil for the garden or plants in the classroom.



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# V. COGNITIVE DEVELOPMENT & GENERAL KNOWLEDGE C. Social Studies



V. COGNITIVE DEVELOPMENT &  
GENERAL KNOWLEDGE  
C. Social Studies



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# OVERVIEW OF SOCIAL STUDIES STANDARDS

## **C. Social Studies**

### **a. Individual Development and Identity**

1. Begins to recognize and appreciate similarities and differences in people
2. Begins to understand family characteristics, roles, and functions
3. Shows awareness and describes some social roles and jobs that people do

### **b. People, Places, and Environments**

1. Demonstrates awareness of geographic thinking

### **c. Technology and Our World**

1. Shows awareness of technology and its impact on how people live

### **d. Civic Ideals and Practices**

1. Demonstrates awareness of group rules (civics)
2. Begins to understand and take on leadership roles



# SOCIAL STUDIES INTRODUCTION

**Social studies** is the third component of Cognitive Development and General Knowledge and includes four areas in which four-year-olds demonstrate their knowledge: **individual development and identity**, **people, places, and environments**, **technology and our world**, and **civic ideals and practices**. Children's experiences in social studies begin from birth, as we are social beings who innately interact with others. In the four-year-old year, children's social experiences include themselves and their families as well as their classroom community and the local community that they have interactions with (e.g., firefighters, the park, the grocery store).

**Individual development and identity**, the first area, is demonstrated as children begin to recognize and appreciate similarities and differences in people and understand the roles of the family. Four-year-olds demonstrate knowledge of **people, places, and environments**, the second area, as they identify attributes of familiar people, understanding family roles and relationships, and develop new ways of examining and noticing places and the **environment**. **Technology and our world**, the third area, is demonstrated as children build awareness, learn how to interact with technology, and understand how technology affects life. In the fourth area, **civic ideals and practices**, group rules are becoming easier to understand and follow, and four-year-olds have a beginning understanding of leadership.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

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

#### V. Cognitive Development and General Knowledge

C.a.2.

#### Teacher Tips

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

#### Environmental Considerations

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

#### C. Social Studies

##### a. Individual Development and Identity

##### 1. Begins to recognize and appreciate similarities and differences in people

Families and early learning *environments* are two of the first experiences of community for young children. Four-year-olds are becoming more aware of similarities and differences among people; they focus mostly on how people are different or the same as themselves.

#### Examples illustrating this standard include:

- dressing in clothing from different *cultures* in the dress up area after reading a story about that *culture*
- talking to peers about different types of family structures
- noticing a child using a walker or wheelchair and asking questions about why it is needed
- choosing playdough or paint that matches his/her skin color
- showing an interest in stories about children who live in different kinds of houses or eat different types of food.

#### Supportive Instructional Strategies:

- In the classroom, display photographs of the children and their families as well as children and families from other cultural groups around the world.
- Incorporate cultural and ethnic activities and materials (e.g., books, clothes, paint, crayons, *music*, food, papers, and micro-play figures of different *cultures* and ethnicities) into the curriculum on a daily basis.
- Provide people from different *cultures* in the micro-play materials in the block area.
- Provide paint and playdough in colors that represent the different skin tones found among peoples of the world.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

V. Cognitive Development and General Knowledge

C.a.1., C.1.2.

#### Teacher Tips

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

#### 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.

#### C. Social Studies

##### a. Individual Development and Identity

##### 2. Begins to understand family characteristics, roles, and functions

Four-year-olds continue to enjoy playing out family roles. They are exploring each person's role and how they live, the jobs family members have within the family, and how to get along. Children are encountering *diversity* when they learn about different characteristics of families and family structures.

##### Examples illustrating this standard include:

- assigning family roles to themselves and friends, saying, for example, "I am the daddy and you are the granddaddy and we are taking the baby to the store"
- bringing a family picture to school and talking about their family during a small group activity with an adult.

##### Supportive Instructional Strategies:

- Invite a member of the family to share a song, story, or special snack with the class.
- Provide opportunities for children to tell stories about their family's special occasions (e.g., a birthday celebration for grandma) or a special holiday.
- Make family trees so children can share who is a part of their family and what makes their family special.
- Read stories about different families and their homes, clothing, and jobs.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### IV. Language, Communication, and Emergent Literacy

C.1.a., C.1.b., C.1.c., C.2.a., C.2.b., D.2.a., D.2.b., D.2.c., E.1.a., E.2.a., E.2.b.

#### V. Cognitive Development and General Knowledge

B.a.1., C.d.2.

#### Teacher Tips

Avoid gender stereotypes when introducing and discussing jobs.

#### Environmental Considerations

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

#### C. Social Studies

##### a. Individual Development and Identity

##### 3. Shows awareness and describes some social roles and jobs that people do

Children this age are interested in people and how they live. As their life experiences grow and they come into contact with a greater variety of people in their community, they develop a better understanding of jobs and social roles. They learn what it takes to perform certain jobs, what tools are needed and how jobs are done. Four-year-olds explore jobs (e.g., cooks, storekeepers, crossing guards, office workers and others) through role-play (*dramatic play*) and through stories.

##### Examples illustrating this standard include:

- relating play to different jobs (e.g., Using shovels and scoops to “build a road” while wearing a hard hat and vest in the sand box, or commenting that “My uncle builds houses, and it is hard work!” after the teacher reads *How a House is Built*)
- naming many community workers and knowing their jobs and responsibilities.

##### Supportive 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.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### V. Cognitive Development and General Knowledge

A.e.1.a., A.e.1.b., A.e.2., A.e.3., A.e.4.

#### Teacher Tips

Look for ways to include children with special needs in spatial relation activities.

#### Environmental Considerations

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

### C. Social Studies

#### b. People, Places, and *Environments*

##### 1. Demonstrates awareness of *geographic thinking*

As with other learning areas, Social Studies is related closely to the four-year-old's developing social skills. Four-year-olds show that they are increasing their awareness of the location of things they care about in their *environment* (e.g., The child may know that the park they enjoy is close to their house but the store is far away.). This beginning *geography* skill shows up in play as well as during spontaneous and facilitated conversations.

#### Examples illustrating this standard include:

- looking at simple maps and diagrams (e.g., a picture map of the classroom)
- commenting on the diagram of how mats are arranged during nap time, saying "See, I knew Kendra napped next to me."
- playing games that give practice in directionality such as Candy Land or Chutes and Ladders (e.g., up, down, forward, back)
- noticing landmarks within the context of the neighborhood (e.g., noticing that school is close to train tracks while on a nature walk through the neighborhood).

#### Supportive Instructional Strategies:

- Take walking trips around the neighborhood and note 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.
- Take digital photographs of landmarks (natural and manmade) from around the school and neighborhood to use in classroom activities (e.g., storytelling, bookmaking, props for the block area).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### V. Cognitive Development and General Knowledge

B.a.1.

#### Teacher Tips

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

#### Environmental Considerations

Provide technology (e.g., computers, small appliances), as well as books about technology and *dramatic play* props representing technology.

#### C. Social Studies

##### c. Technology and Our World

##### 1. Shows awareness of technology and its impact on how people live

Technology is more than computers and cell phones. It includes machines and tools that make life easier and help us solve problems. Interacting with technology means building awareness, learning how to interact with technology, and understanding how technology affects our lives.

##### Examples illustrating this standard include:

- recording sounds into a tape recorder in the *music* area and then listening when the recording is played back
- exploring simple drawing programs on a class or home computer
- using a digital camera to take pictures (e.g., of friends, nature, the classroom)
- understanding how community services impact their daily lives (e.g., "How does food get to the grocery store?" "How is mail delivered?" "Where does trash go after it leaves your home?").

##### Supportive 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.
- Discuss advantages and disadvantages of technology in everyday lives (stairs versus escalator or elevator, walking versus driving, solar cooking versus conventional ovens, candles versus electricity, fireplaces versus mechanical heating systems).
- Ask questions during appropriate play activities (e.g., "How does food get to the grocery store?" "How is mail delivered?" "Where does trash go after it leaves your home?").

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

A.8.

#### Teacher Tips

Discuss rules with families, ensuring sensitivity to cultural and ethnic differences.

#### Environmental Considerations

Post rules with words and pictures.

#### C. Social Studies

##### d. *Civic Ideals* and Practices

##### 1. Demonstrates awareness of group rules (*civics*)

Group rules help to create a safe classroom community where children can explore and interact without fear of physical or emotional harm. Four-year-olds have a better understanding of what rules are, but still need concrete examples and gentle adult guidance to follow them. At this age, children enjoy helping to create rules for their community; they are more likely to understand and follow rules when they take part in deciding on those rules.

##### Examples illustrating this standard include:

- asking permission when appropriate (e.g., leaving the room, performing a job)
- listening to others and joining in conversations at appropriate times
- taking a fair share of snack when allowed to self-serve.

##### Supportive Instructional Strategies:

- Provide frequent reminders of rules (e.g., verbal, pictorial, role-play).
- Keep rules simple and easy to remember; continually model appropriate use of rules
- Suggest class rules during a group discussion and help children understand why the rules are important.
- Discuss why rules are important and what would happen if we had no rules (e.g., looking both ways before crossing the street, not running inside, sharing with others).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### V. Cognitive Development and General Knowledge

C.a.2., C.a.3.

#### Teacher Tips

Allowing children to take the lead in *planning* and organizing activities adds to self-esteem and cognitive ability.

#### Environmental Considerations

Include displays for classroom leadership roles and posters and pictures depicting community leaders.

#### C. Social Studies

##### d. *Civic Ideals* and Practices

##### 2. Begins to understand and take on leadership roles

Each child has unique gifts and talents that lend themselves to the development of leadership skills. When appropriate, teachers give opportunities for each child to be recognized as a leader. The opportunity to be a leader helps four-year-olds develop their sense of competence as well as their understanding of social roles (e.g., at school, the teacher has a great amount of decision-making power, while at home, parents typically have most of the decision-making power). When children are given the chance to lead, they see themselves as capable and in control. At this age, they are just beginning to understand the qualities of a leader and need many opportunities to practice their budding leadership *skills*.

##### Examples illustrating this standard include:

- assuming a leadership role as a helper in passing out plates, cups, and spoons for snack
- assisting a friend who is having trouble fastening shoes
- pretending to be the conductor of the train in the *dramatic play center*
- stopping the line to wait for a teacher that has stopped to tie a child's shoe.

##### Supportive Instructional Strategies:

- Discuss classroom responsibilities and assign jobs to each child.
- Use books to highlight various leadership roles.
- Introduce children to community leaders (e.g., police officers, principals, judges) through special visitors and field trips.



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# V. COGNITIVE DEVELOPMENT & GENERAL KNOWLEDGE

## D. Creative Expression Through The Arts



V. COGNITIVE DEVELOPMENT &  
GENERAL KNOWLEDGE  
D. Creative Expression  
Through The Arts

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# OVERVIEW OF CREATIVE EXPRESSION THROUGH THE ARTS STANDARDS

## **D. Creative Expression Through The Arts**

### **a. Visual Arts**

1. Explores visual arts
2. Creates visual arts to communicate an idea
3. Discusses and responds to the feelings caused by an artwork

### **b. Music**

1. Explores music
2. Creates music to communicate an idea
3. Discusses and responds to the feelings caused by music

### **c. Creative Movement and Dance**

1. Explores creative movement and dance
2. Creates creative movement and dance to communicate an idea
3. Discusses and responds to the feelings caused by creative movement and dance

### **d. Dramatic Play and Theatre**

1. Explores dramatic play and theatre
2. Creates dramatic play and theatre to communicate an idea
3. Discusses and responds to the feelings caused by dramatic play and theatre



# CREATIVE EXPRESSION THROUGH THE ARTS

## INTRODUCTION

The fourth component, **Creative Expression Through The Arts**, provides children with opportunities to express ideas and feelings, use words, manipulate tools and media, and solve problems in four areas: **visual arts**, **music**, **creative movement and dance**, and **dramatic play and theatre**. 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.

The first area, **visual arts** is demonstrated when children are able to stay involved in creative visual art activities, that allow them to share their understanding and knowledge through visual art media (e.g., paint, clay, markers on paper, watercolor painting, photography). **Music**, the second area, is demonstrated by recognizing and creating **patterns** through **music**. Singing, chanting, and rhyming enhances vocabulary and **oral language** development. **Creative movement and dance**, the third area, involves children enjoying dancing and exploring the different ways they can move. This is especially effective as they are refining **gross motor skills** and can do more and more each day. The fourth area, **dramatic play and theatre**, focuses on experiences that help children develop fluency of language, movement, originality, elaborations of ideas, vocabulary, imitation, and self-expression.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.1., D.2., D.3.

##### II. Approaches to Learning

C.1.

#### V. Cognitive Development and General Knowledge

A.c.1.c., A.c.4.a., A.c.4.b.

#### Teacher Tips

Children with special needs are children first and can enjoy all forms of the arts.

#### 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.

#### D. Creative Expression Through The Arts

##### a. *Visual Arts*

##### 1. Explores *visual arts*

As their attention span grows, four-year-olds are able to stay involved in creative art activities for longer periods of time. Four-year-olds experiment enthusiastically with art materials and investigate their ideas through drawing, painting, sculpture, and design. They exhibit a sense of joy and excitement as they make and share their artwork with others.

##### Examples illustrating this standard include:

- experimenting with different materials to see what happens (e.g., painting with a dry brush, wet brush, stick, or fingers)
- manipulating clay in different ways (e.g., patting, rolling, dropping, pinching)
- touching different textures
- tracing and creating *patterns*
- making and combining different shapes, marks, forms, and textures
- mixing colors.

##### Supportive Instructional Strategies:

- Introduce different art materials, tools, and supplies on a regular basis (e.g., recyclables, string, straws, wire, clay, rollers, buttons, scissors, cotton swabs, cotton balls, aluminum foil, felt, feathers).
- Ask open-ended questions to stimulate children's imaginations about the use of materials (e.g., "What happens when you mix two colors?", "What else might you paint with?").
- Model how to combine basic shapes, lines, and forms to create pictures (e.g., combining a *triangle* and *square* to make a house, or an *oval* and *triangle* to make a fish)
- Discuss how the use of color can express a mood or feeling in an artwork.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

C.1.

#### III. Social and Emotional Development

A.a.2.

#### IV. Language, Communication, and Emergent Literacy

C.2.a., E.1.a., G.1.a.

#### V. Cognitive Development and General Knowledge

C.a.2., Dd.b.3., D.c.3., D.d.3.

#### Teacher Tips

Children are usually happy when creating art, and it is good for the heart, soul and the body.

#### Environmental Considerations

Provide a variety of materials in the classroom for children to use to create a product to communicate an idea (e.g., paint, brushes, different sized boxes, rollers, collage materials).

#### D. Creative Expression Through The Arts

##### a. *Visual Arts*

##### 2. Creates *visual arts* to communicate an idea

A rich variety of creative art materials and experiences help hold a four-year-old's interest and allows *exploration* and *discovery* using different materials and images to create, present, and reflect upon ideas. Creation is at the heart of their instruction. Children learn to work with various tools, processes, and media. They learn to coordinate their hands and minds in *exploration* of the visual world. They learn to make choices that enhance their communication of ideas. Their natural inquisitiveness is promoted and they learn the value of perseverance.

##### Examples illustrating this standard include:

- building a large structure from different sized boxes, painting it with rollers and brushes, and describing it to the teacher (e.g., castle, clubhouse, grandparents' house)
- creating an artwork to express an emotion (e.g., happy, sad, scared, angry)
- smearing orange paint around and around on a large cookie tray and calling it a pumpkin
- using collage materials to create an idea for a climber they wish was on the playground.

##### Supportive Instructional Strategies:

- Read a story to the children and have them draw a portrait of the main character.
- Play *music* and have students create a two-dimensional artwork that describes what they heard.
- Have children depict their favorite part of a story using a variety of materials provided for them.
- Talk with children about the art-making process (e.g., What did they like best and why? How did they make a *pattern*? A color? What would happen if they had chosen a different material?).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

D.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

A.b.2.

##### IV. Language, Communication, and Emergent Literacy

G.1.a., G.1.b., G.2.a., G.2.b.

##### V. Cognitive Development and General Knowledge

D.b.1., D.b.2., D.c.1., D.c.2.

#### Teacher Tips

Visual art is a wonderful way for children to express their thoughts and feelings.

#### Environmental Considerations

Provide display space to introduce and examine artistic creations and events, including children's creations.

#### D. Creative Expression Through The Arts

##### a. *Visual Arts*

#### 3. Discusses and responds to the feelings caused by an artwork

As four-year-olds gain more experience working in the visual arts, they are able to discuss artworks with friends and teachers. This may include works by famous artists or classmates, or art in the local community. The child becomes better able to express in words how an artwork feels, the design qualities, or type of artwork.

#### Examples illustrating this standard include:

- talking about their work with their classmates
- responding to prompts and questions by the teacher
- talking about another child's art product in a positive manner and asking questions about how they made it
- discussing how working with art materials makes them feel.

#### Supportive Instructional Strategies:

- Ask children questions about what they see in an artwork or picture.
- Show and discuss with children a picture of an object, a model of an object, and the actual object to help them relate pictures and photographs to real places and things.
- Showcase children's artwork in a manner that reinforces the context in which it was created (e.g., if they drew pictures of characters in a book, also display the book).
- Have children write or dictate what is happening in their artwork (e.g., describe the action, mood, image, or idea).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

C.1.

#### V. Cognitive Development and General Knowledge

A.c.1.c.

#### Teacher Tips

*Temperament* and individual differences affect children's levels of participation and response to *musical* activities.

#### Environmental Considerations

Include a variety of *musical* instruments, recordings, and *music* props.

#### D. Creative Expression Through The Arts

##### b. *Music*

##### 1. Explores *music*

*Music* can set the tone for all activities and enrich children's learning experiences. Making and responding to *music* contributes to learning across many domains. Four-year-olds can recognize and create *patterns* through *music*. Singing, chanting, and rhyming enhances vocabulary and *oral language* development. *Music* can be soothing or stimulating and can be used in group experiences as well as independent *explorations*.

##### Examples illustrating this standard include:

- playing various instruments and discovering the different types of sounds that each instrument can make
- using the voice as an instrument
- discovering the different types of sounds that found objects can make
- distinguishing the difference between loud, soft, high-pitched and low-pitched sounds
- making sounds at different rates of speed (tempos) (e.g., fast, slow).

##### Supportive Instructional Strategies:

- Introduce many types of *music* (e.g., jazz, hip hop, folk, classical, reggae) through recordings, instruments, and special visitors; ask children to move to different tempos and styles of *music*.
- Introduce *music* as a way to portray characters within a story, play, or movie. (e.g., assign a different sound to each character).
- Take a nature walk outside the classroom to find possible objects to use as instruments (e.g., scrap wood, heavy sticks, broken branch with leaves, gourds, large seed pods, pebbles, stones).
- Invite local *musicians*, perhaps parents, to share their *music* and instruments with the children.

# V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

## FOUR-YEAR-OLDS

### Related Skills Within The Standards

#### I. Physical Health

C.1., C.2.

#### II. Approaches to Learning

A.1.

#### III. Social and Emotional Development

A.a.2., A.b.3.

#### IV. Language, Communication, and Emergent Literacy

A.1.a., B.1.a.

#### V. Cognitive Development and General Knowledge

D.a.3., D.c.3., D.d.3.

### Teacher Tips

*Music* is an exciting way to promote speech development, provide organization for cognitive and physical development, and provide a learning *environment* for socialization and leisure interactions.

### Environmental Considerations

Include a variety of *musical* instruments, recordings, and *music* props in the classroom.

## D. Creative Expression Through The Arts

### b. *Music*

#### 2. Creates *music* to communicate an idea

After exploring qualities of *musical* instruments (including voice), children are better able to create their own *music* to share an idea, an emotion, or a story. Children may work independently or with classmates to create *music*. They may choose particular instruments or styles of *music* to communicate a particular idea.

#### Examples illustrating this standard include:

- making *musical* sounds with instruments with a classroom visitor who plays a guitar and sings songs
- singing independently, in rhythm, while maintaining a steady tempo, with teacher support and multiple experiences over time
- singing expressively with appropriate meaning and feeling
- singing from memory a varied repertoire of songs representing *rhyme* and styles from diverse *cultures*.

#### Supportive Instructional Strategies:

- Use *music* that requires group singing, movement, and cooperation to help children feel part of the class.
- Set up a *music center* with instruments to create melodies (e.g., keyboard, xylophone, bells) and encourage children to create their own songs.
- Have children replace a word or phrase in a song with something they come up with (e.g., "Row, row, row your boat...." can become "fly, fly, fly your kite...." or "drive, drive, drive your car....").
- Invite a child with a hearing impairment to put a hand on the audio speaker to feel the beat of the *music*.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.1., C.2.

##### II. Approaches to Learning

A.1.

##### III. Social and Emotional Development

A.a.2.

##### V. Cognitive Development and General Knowledge

D.a.1., D.a.2., D.c.1., D.c.2.,  
D.d.1., D.d.2.

#### Teacher Tips

Invite a *musician* in to play a variety of types of *music* on his/her instrument and discuss with the class.

#### Environmental Considerations

Include a variety of *musical* instruments, recordings, and *music* props in the classroom.

#### D. Creative Expression Through The Arts

##### b. *Music*

#### 3. Discusses and responds to the feelings caused by *music*

Through experiences with *music*, children become better able to talk about various elements of *music* (e.g., styles (genres) of *music*, types of instruments, voice). They become familiar with various styles of *music*, including their favorites. Children become more experienced at expressing how particular *music* makes them feel, including *music* by famous artists, themselves, classmates, or others from the local community.

#### Examples illustrating this standard include:

- listening and responding to *music* from another *culture* during a large group activity
- discussing their favorite instrument and why they like it
- comparing and contrasting different instruments and songs
- describing the background songs they hear in a cartoon or movie and how it makes them feel or adds to the story.

#### Supportive Instructional Strategies:

- Encourage discussion about *musical* experience (e.g., animal sounds, sounds in nature, songs they know).
- After watching a short, appropriate movie, discuss with children their favorite character in the story and important *musical* elements (e.g., How did you know, through the *music*, that a character was entering the story? or, How did you know, from listening to the *music*, if the end was going to be good or bad for the characters?).
- Encourage children to talk about and describe the instruments they made from objects found during a nature walk and what types of sound each can make (e.g., soft, loud, rattling, sharp).
- Give children crayons and paper and invite them to draw what they hear as *music* is played.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

#### II. Approaches to Learning

C.1.

#### IV. Language, Communication, and Emergent Literacy

F.4.a., F.4.b.

#### Teacher Tips

Children with special needs can enjoy movement, *dance*, and drama. Material adaptations or extra time for activities may help them participate fully.

#### 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).

#### D. Creative Expression Through The Arts

##### c. *Creative Movement and Dance*

##### 1. Explores *creative movement and dance*

Using their body to express themselves and respond to *music* is satisfying and engaging for four-year-olds. They enjoy dancing and exploring the different ways they can move. This is especially effective as they are refining *gross motor* skills and can do more and more each day.

##### Examples illustrating this standard include:

- imitating animal movements
- galloping, twirling, and performing imaginative movements in response to *music*
- dancing and moving in front of a mirror
- dancing to different kinds of *music* (e.g., jazz, rock, blues, reggae, country, classical, folk)
- exploring and demonstrating different postures.

##### Supportive Instructional Strategies:

- Show children how they can make big movements like arm *circles* or small movements like shoulder shrugs; demonstrate to children that they can move at different levels in space (e.g., low to the ground, up high as if they are reaching for the sky, or in the middle).
- Have children isolate movements to a specific body part (e.g., make *circles* with their wrists, move their heads slowly from side to side, move just their hips) and get creative thinking about other body parts (e.g., opening and closing their mouths, flexing or pointing their feet, or wiggling their fingers).
- Help children listen for the beat of the *music* and count out different movements.
- Have children move to different areas in the room using specific ways to travel (e.g., hop to the door, crawl to the group time rug, skip to the gate).



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.1., C.2.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

E.1.a., F.1.a.

##### V. Cognitive Development and General Knowledge

D.a.2., D.b.2., D.d.2.

#### Teacher Tips

*Creative movement*/dancing are physically, emotionally and socially stimulating for children.

#### 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).

## D. Creative Expression Through The Arts

### c. *Creative Movement and Dance*

#### 2. Creates *creative movement* and *dance* to communicate an idea

*Creative movement* and *dance* can be a terrific way for children to communicate their ideas and feelings. Through experimentation, modeling, and experience, children become skilled at many movements that can be used to create specific *dances*. Teachers should model movements and ideas through actions and by adding vocabulary to maximize each child's experience.

#### Examples illustrating this standard include:

- using scarves, fabric, and ribbons to make up *creative movements* to different paced *music*
- demonstrating and combining basic movements (e.g., walking, running, hopping, jumping, leaping, galloping, sliding, and skipping) with directional movements (e.g., traveling forward, backward, sideward, and diagonally; turning)
- demonstrating movements in straight and curved pathways
- demonstrating accuracy in moving to a *musical* beat and responding to changes in tempo (speed)
- sequencing a *dance phrase* to have a beginning, middle, and end of consecutive movements (e.g., two hops to start, a shoulder shrug in the middle, and one twirl to end).

#### Supportive Instructional Strategies:

- Invite children to imitate the movement of animals, insects, and/or reptiles (e.g., wiggle, slither, stretch, fly, move slowly or move quickly, stretch, crouch, sway, run, hop, jump).
- Show children how to combine different movements to create a sequence or *dance phrase* (e.g., two steps forward, one turn, two hops) or make up movements through improvisation.
- Explain and show that *dance* can communicate an idea or story by having the children create a movement to describe how a character may feel at the beginning, middle, and end of a favorite book.
- Invite children to create movements that depict the growth of a seed into a flower, taking time needed to demonstrate this life cycle (e.g., seed under the soil, is watered, feels sunshine, begins to grow, grows taller, blooms).

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

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

##### IV. Language, Communication, and Emergent Literacy

B.1., D.2., E.1.a.

##### V. Cognitive Development and General Knowledge

D.a.3., D.b.3., D.d.3.

#### Teacher Tips

Have a volunteer come in to the classroom to teach a *dance* lesson (e.g., ballet, modern, hip-hop, jazz, tap).

#### 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).

#### D. Creative Expression Through The Arts

##### c. *Creative Movement* and *Dance*

##### 3. Discusses and responds to the feelings caused by *creative movement* and *dance*

As children gain more experience with *creative movement* and *dance*, they become more skilled at trying different movement and *dance* elements. They can begin to recognize others' dance and *creative movement* skills as well. Teachers should expose children to various movement and dance opportunities in the classroom, as well as through dance opportunities in the local community or online (e.g., going to the ballet, inviting a children's dance troupe to come perform, watching a video of a famous tap dancer). With experience, children can verbally express how a dancer's movements make them feel, how various styles are different, and how certain types of *music* may evoke certain styles of movement.

##### Examples illustrating this standard include:

- *observing* and discussing how dance is similar and different from other forms of human movement like sports or everyday gestures
- actively participating in a discussion about their feelings and reactions to a dance or how they feel when they dance
- presenting their own dances or movements to peers and discussing their meanings
- *observing* and accurately describing and identifying the action or movement (e.g., hop, jump, skip, gallop) and movement elements (e.g., levels, directions).

##### Supportive Instructional Strategies:

- Talk with children about their animal-inspired movements (e.g., How does a monkey move? How does an elephant move? How does an eagle move? How do humans move differently?).
- Ask children to move to different tempos and styles of *music*, then ask them how they feel after they have moved.

## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

A.a.1., A.b.1.

##### IV. Language, Communication, and Emergent Literacy

B.1.a., C.2.a., C.2.b.

##### V. Cognitive Development and General Knowledge

D.a.1., D.b.1., D.c.1.

#### Teacher Tips

*Dramatic play* gives children opportunities to express feelings and learn to solve conflicts.

#### Environmental

##### Considerations

Provide materials in the classroom that will facilitate *dramatic play* (e.g., old clothes, large pieces of fabric, old household items, costumes, puppets).

#### D. Creative Expression Through The Arts

##### d. *Dramatic Play* and Theatre

##### 1. Explores *dramatic play* and theatre

Four-year-olds explore *dramatic play* and theatre, indoors and outdoors, in engaging *environments*. *Dramatic play* and Theatre can include story enactment, imagination journeys, and theatre games. For children beginning to explore, a variety of child-size props (e.g., costumes), puppets, and micro-play toys (e.g., cars, people, and animals from the block area) are needed. The emphasis in *dramatic play* is on process rather than product.

##### Examples illustrating this standard include:

- using different voices (sound effects), movements, facial expressions, and materials to portray characters and story events
- playing with toys in the toy area and acting out the traditional roles according to the toys (e.g., truck driver, police officer, surgeon, farmer, doctor) or using the toys to come up with unique roles
- pretending to be animals or role-playing about friendship, family, or daily activities
- creating costumes for a character in a story or for a person in a specific career
- identifying a story's beginning, middle, and end.

##### Supportive Instructional Strategies:

- Provide creative and spontaneous play opportunities by having simple, inexpensive materials on hand (e.g., old clothes, large pieces of fabric, old household items, a microphone, various sizes of cardboard boxes and recyclables).
- Explain that role-play is pretending to be someone else; model for children how to become a character in a role-play (e.g., voice, facial expressions, props, costumes).
- Introduce different types of puppets (e.g., finger, string, spoon, sock, shadow, paper bag, marionettes) and have the children create their own puppet characters.
- Present different community helpers and professions of interest to four-year-olds. Explore the concepts of work and growing up (jobs or careers) and have them role-play.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

E.1.a., F.1.a.

##### V. Cognitive Development and General Knowledge

D.a.2., D.b.2., D.c.2.

#### Teacher Tips

**Dramatic play** gives children the setting necessary to explore and discover their individuality.

#### Environmental Considerations

Provide materials in the classroom that will facilitate **dramatic play** (e.g., old clothes, large pieces of fabric, old household items, costumes, puppets).

#### D. Creative Expression Through The Arts

##### d. *Dramatic Play* and Theatre

##### 2. Creates **dramatic play** and theatre to communicate an idea

**Dramatic play** and theatre experiences help children develop fluency of language, movement, originality, elaborations of ideas, vocabulary, imitation, and self-expression. Through experience independently and with friends, children become skilled at taking on various roles and enacting a story. Their stories may be replications of books (e.g., *The Three Billy Goats Gruff*), their own experiences (e.g., reenacting a trip on an airplane), or their imagination.

#### Examples illustrating this standard include:

- creating a story that uses reality and/or fantasy
- expressing thoughts and feelings about a family member, friend, or character in a story or **rhyme**
- working with other children to establish play spaces for classroom dramatizations; selecting and safely organizing available materials that suggest scenery, props, lighting, sound, costumes, and makeup
- creating puppets or masks to portray a character or feeling for a puppet show
- demonstrating variation in movement, vocal pitch, tempo, and tone for different characters.

#### Supportive Instructional Strategies:

- Read familiar stories or **rhymes** and have children develop a voice for their favorite character, dramatize a section of the story, or provide children the option to extend the story with a surprise moment or ending.
- Use a story or **rhyme** to create, plan, and produce a puppet show in which children can have individual roles or share roles; document the puppet show (e.g., videotape or photos).
- Talk with children about what makes them feel happy, sad, scared, and angry; ask them to create a puppet show about their feelings.
- Lead children in developing an impromptu story by starting with "Once upon a time..." and passing a talking stick around for each child's turn to contribute to the story.



## V. COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE

### FOUR-YEAR-OLDS

#### Related Skills Within The Standards

##### I. Physical Health

C.2.

##### II. Approaches to Learning

A.1., C.1.

##### III. Social and Emotional Development

B.a.1.

##### IV. Language, Communication, and Emergent Literacy

E.1.a., F.1.a.

##### V. Cognitive Development and General Knowledge

D.a.3., D.b.3., D.c.3.

#### Teacher Tips

Include opportunities for sharing work from a variety of *cultures* and ethnicities.

#### Environmental Considerations

Provide materials in the classroom that will facilitate *dramatic play* (e.g., old clothes, large pieces of fabric, old household items, costumes, puppets).

#### D. Creative Expression Through The Arts

##### d. *Dramatic Play* and Theatre

##### 3. Discusses and responds to the feelings caused by *dramatic play* and theatre

The classroom should provide rich opportunities and time for children's involvement in *dramatic play* and theatre. Through experience, children become skilled at taking on roles personally and with props (e.g., puppets, marionettes, flannel board characters, block area props). Teachers should plan for opportunities outside of the classroom, including the local community and online (e.g., taking a field trip to a local child-appropriate theatre production, inviting a puppeteer to the classroom, viewing another class' rendition of *The Three Little Pigs*). With experience and modeling by the teacher, children can express how a story makes them feel or how various styles of theatre and role-play are different.

#### Examples illustrating this standard include:

- using imagination to describe characters, puppets, and their relationships, circumstances, and *environments*
- expressing feelings about a character, costume, or story
- sharing feelings after participating in *pantomime*, role-playing, and/or *tableaux*
- expressing thoughts and feelings about sound effects
- discussing the reason for selecting a particular movement, gesture, voice, or sound effect.

#### Supportive Instructional Strategies:

- Have children talk about their puppet (e.g., What story would you like your puppet to tell? What does your puppet like to do?) and, after role-playing, ask children what they liked best about creating a puppet and puppet show.
- Discuss with children how different events cause different emotions and responses when doing mime or role-playing; ask open-ended questions (e.g., What was it like to be a mime? What did you like about it? What did you find difficult? Did you find it hard not to talk?).
- After a role-playing activity, ask children what they learned about conflict and about friendship.
- Discuss with children how the process of *tableaux* reveals what happened in the story (e.g., beginning, middle, and end).

# COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE 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.).

**cardinal number** - a number used to express quantity but not order.

**center** - area within the classroom arranged so that children are able to participate in a variety of related learning experiences (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.

**civic ideals** - the rights and responsibilities of citizens of a democracy.

**civics** - the study of rights and duties of citizenship.

**comparative terminology** - 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 that stick.").

**cone** - a solid figure or body having a circular base and tapering to a point.

**content** - information contained in a story or lesson.

**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).

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

**culture** - the customary beliefs, social forms, and material traits of a racial, religious, or social group.

**cylinder** - a solid with circular ends and straight sides.

**dance** - moving in a choreographed way or way that is directed by the genre of **music** (e.g., line dancing, ballet, hip hop).

**dance phrase** - a repeated sequence in a **dance** (e.g., shoulder shrug, two hops, clap), similar to a **pattern unit**.

**discovery** - engaging students in deep learning that promotes exploration, problem solving, creativity, and student engagement.

**diversity** - the inclusion of different people (as people of different races or cultures) in a group or organization.

**dramatic play** - expressive and spontaneous play.

**emerging** - initial stages of a developing skill.

**environment** - the circumstances, objects, or conditions by which one interacts with and is surrounded.

**environmental awareness** - an understanding of the **environment** and surroundings.

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

# COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE GLOSSARY (continued)

**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.

**geographic thinking** - **observing** and interacting with **geography** and making geographic decisions based on those encounters.

**geography** - the study of the Earth and the human and physical phenomena that can be classified into five areas: location, place, human-**environment** interaction, movement, and region.

**gross motor** - abilities using the large muscles of the arms, legs, and torso (e.g., walking, running, jumping, pedaling, throwing, and dancing).

**initiate** - to begin something, taking the first step.

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

**investigating** - observing or inquiring in detail.

**investigation** - systematic examination.

**interpersonal skills** - the ability to get along with others.

**life science** - the study of living organisms

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**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).

**observing** - regarding attentively or watching.

**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).

**oral language** - spoken language.

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

**orientation** - the position 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.

**pantomime** - using gestures and facial expressions to tell a story, or role-play without speaking (e.g., pouting, smiling, or pretending to fly).

**pattern** - a repeating series of units.

**pattern unit** - the portion of a **pattern** that is repeated (e.g., in a red, blue, red, blue, red, blue **pattern**, the **pattern unit** is red, blue).

**physical science** - science of non-living things in the physical world around us.

# COGNITIVE DEVELOPMENT AND GENERAL KNOWLEDGE GLOSSARY (continued)

**planning** - the process of mental preparation and problem-solving in order to accomplish an act (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).

**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** are the same object but in different positions).

**rhombus** - A four-sided shape where all sides have equal length, opposite sides are parallel, opposite acute angles are equal, and opposite obtuse angles are equal.

**rhyme** - a match between the sounds of two or more words or word endings (e.g., spoon, moon).

**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).

**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.

**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).

**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.

**tableaux** - a scene presented on stage.

**trapezoid** - a four-sided shape with one pair of opposite sides parallel.

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

**unit** - what something is measured something by (e.g., centimeter [cm], foot [ft], inch [in], yard [yd]).

**visual arts** - artwork, such as painting, photography, or sculpture.



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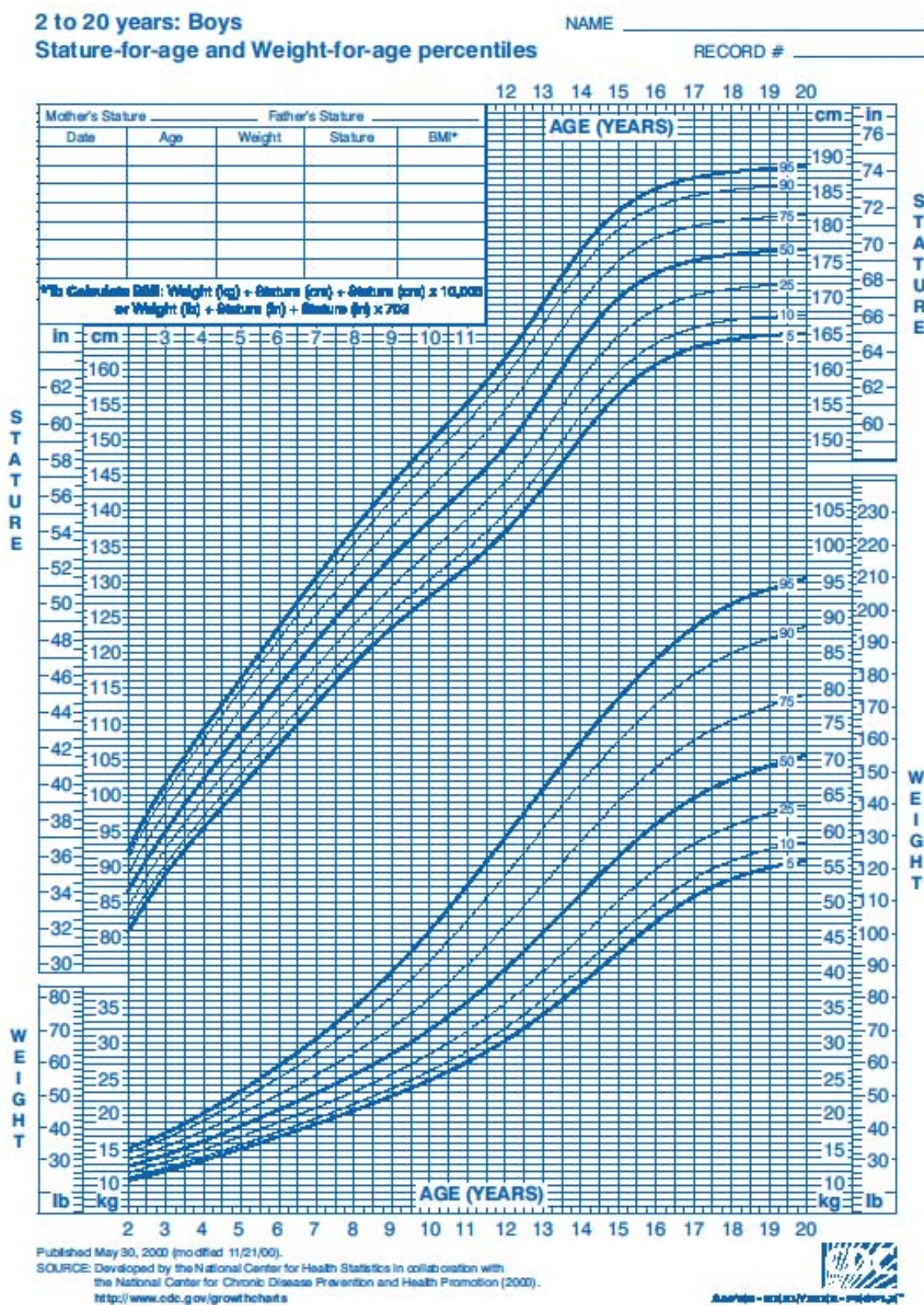
# APPENDICES



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## Appendix A: Centers for Disease Control and Prevention (CDC) Clinical Growth Charts





## Appendix A: Centers for Disease Control and Prevention (CDC) Clinical Growth Charts (continued)

[illegible]

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2003). <http://www.cdc.gov/growthcharts>



**SAFETY • HEALTH • PEOPLE**



[illegible]



## Appendix B: Centers for Disease Control and Prevention (CDC) Body Mass Index Charts (continued)

**2 to 20 years: Girls**

Date	Age	Weight	Stature	BMI*	Comments

\*To Calculate BMI: Weight (kg) ÷ Stature (cm) × Stature (cm) x 10,000  
or Weight (lb.) ÷ Stature (in.) + Stature (in.) x 703

This figure shows two versions of a BMI-for-age percentile chart for girls from age 2 to 20. The top version includes a data entry table with columns for Date, Age, Weight, Stature, BMI\*, and Comments. Below the table are two identical graphs. Each graph plots BMI ( $\text{kg/m}^2$ ) against AGE (YEARS). The left y-axis ranges from 12 to 27, and the right y-axis ranges from 12 to 35. Percentile curves are shown for 5th, 10th, 25th, 50th, 75th, 85th, 90th, and 95th percentiles.



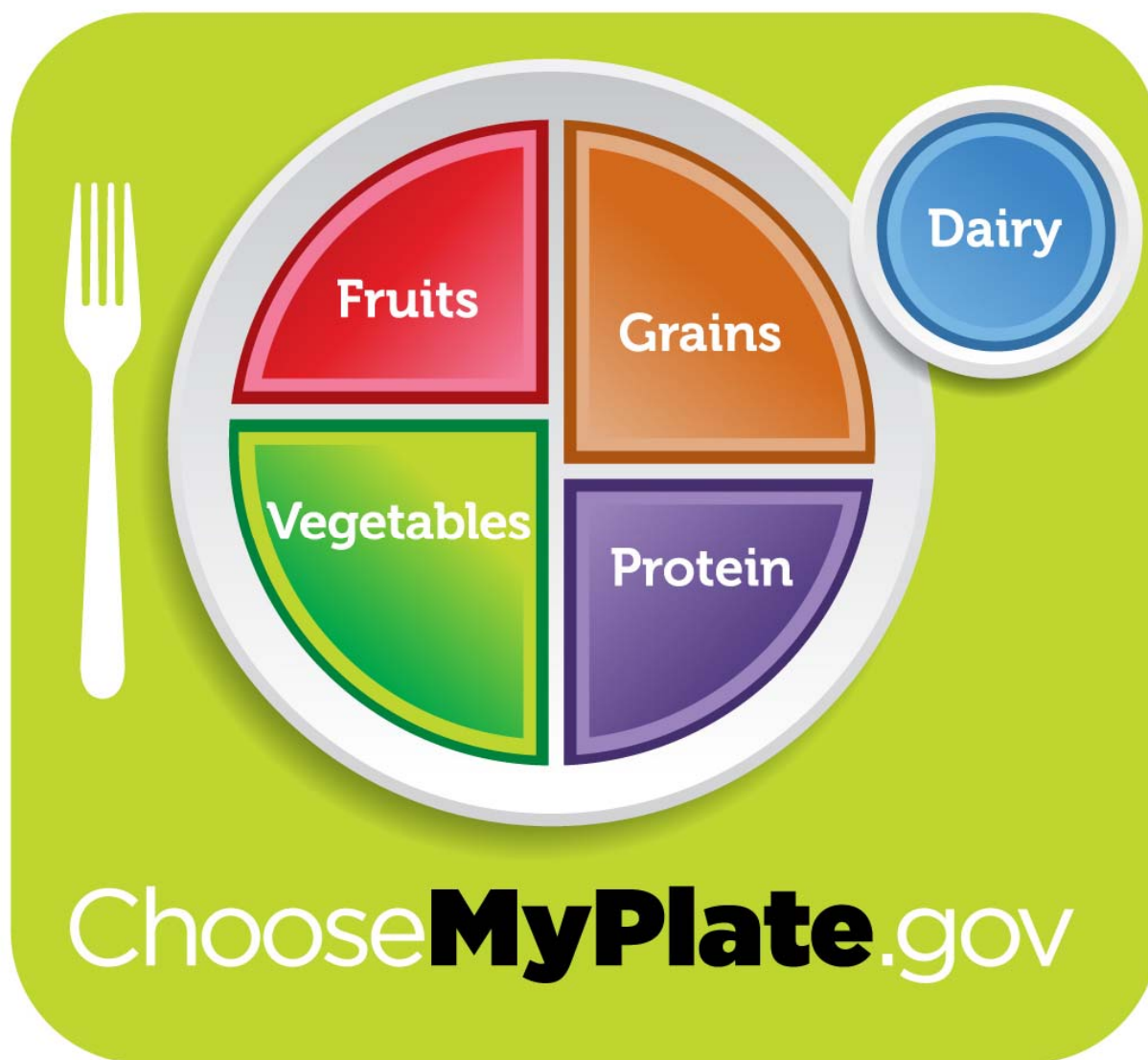
U.S. ENVIRONMENTAL PROTECTION AGENCY





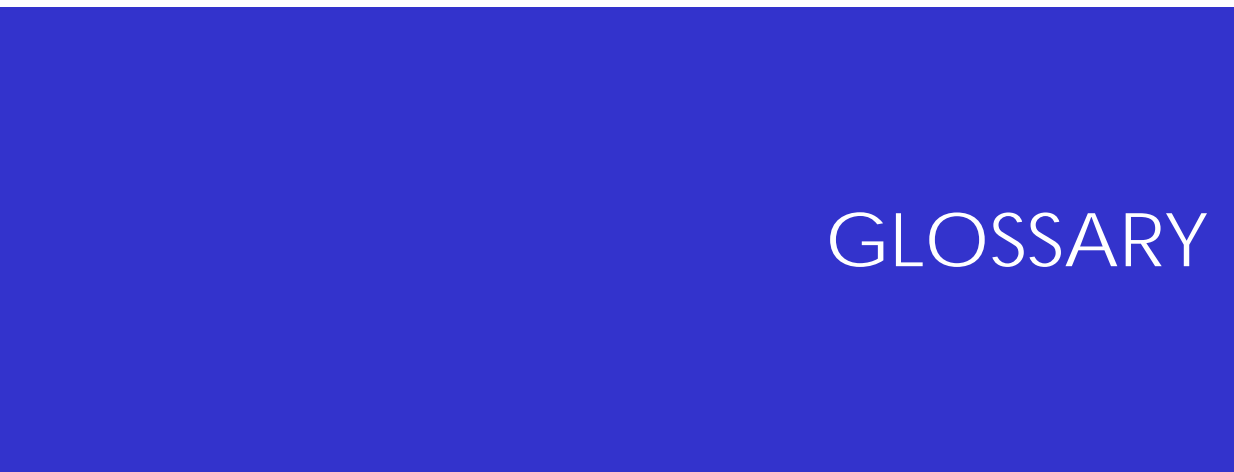


## Appendix D: U.S. Department of Agriculture (USDA) Food Plate



The website features practical information and tips to help Americans build healthier diets. It also features selected messages to help consumers focus on key behaviors. Selected messages include the following:

- Enjoy your food, but eat less.
- Avoid oversized portions.
- Make half your plate fruits and vegetables.
- Switch to fat-free or low-fat (1%) milk.
- Make at least half your grains whole grains.
- Compare sodium in foods like soup, bread, and frozen meals—and choose foods with lower numbers.
- Drink water instead of sugary drinks.



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# GLOSSARY

**academic language** - language used in the classroom setting (e.g., “line leader”, “**center** time”, “circle time”).

**affective** - related to factors such as emotional regulation, child motivation, attitudes, perceptions, and values.

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

**alphabetic knowledge** - the understanding 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.).

**articulation** - the correct pronunciation of one or more sounds within a word (e.g., a child says “ellow” for the word yellow or “ish” for the word fish).

**auditory (hearing) screening** - evaluations that are conducted to determine how well a child can hear.

**autonomy** - independence.

**blend** - to combine sounds rapidly in order to accurately represent a word.

**blends** - combinations of two letter sounds to make one sound (e.g., /bl/ as in “blocks”; /st/ as in “street”).

**bully** - child who repeatedly commits negative acts with a conscious intent to hurt another child.

**bullying** - repeated negative act(s) committed by one or more children with a conscious intent to hurt another child. These negative acts can be verbal (e.g., making threats, name-calling), psychological (e.g., excluding children, spreading rumors), or physical (e.g., hitting, pushing, taking a child's possessions).

**bystander** - anyone, other than the **bully** and victim, who is present during a **bullying** incident.

**cardinal number** - a number used to express quantity but not order.

**center** - area within the classroom arranged so that children are able to participate in a variety of related learning experiences (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.

**civic ideals** - the rights and responsibilities of citizens of a democracy.

**civics** - the study of rights and duties of citizenship.



## GLOSSARY (continued)

**comparative terminology** - 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 that stick.”).

**complex sentence** - a sentence that includes at least one independent clause and at least one dependent clause (a part of a sentence that 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.

**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 aloud to them).

**cone** - a solid figure or body having a circular base and tapering to a point.

**content** - information contained in a story or lesson.

**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).

**creativity** - individuality expressed by creating something new or original (e.g., creating a new representation of a flower).

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

**culture** - the customary beliefs, social forms, and material traits of a racial, religious, or social group.

**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 discovered on the playground).

**cylinder** - a solid with circular ends and straight sides.

**dance** - moving in a choreographed way or way that is directed by the genre of **music** (e.g., line dancing, ballet, hip hop).

**dance phrase** - a repeated sequence in a **dance** (e.g., shoulder shrug, two hops, clap), similar to a **pattern unit**.

**digraph** - two separate sounds joined together to create a new sound (e.g., /sh/ shoes; /ch/ chair).

**disciplinary words** - words used to describe **content** areas (e.g., science, social studies, math, and literacy).

**discovery** - engaging students in deep learning that promotes exploration, problem solving, **creativity**, and student engagement.

**diversity** - the inclusion of different people (as people of different races or cultures) in a group or organization.

# GLOSSARY (continued)

**dramatic play** - expressive and spontaneous play.

**eagerness** - energy and excitement about learning; wanting to learn (e.g., a child desires to participate in an activity).

**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 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).

**emerging** - initial stages of a developing skill.

**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.

**environment** – the circumstances, objects, or conditions by which one interacts with and is surrounded.

**environmental awareness** - an understanding of the **environment** and surroundings.

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

**expansion question** - question asked in order to extend the thought process of the student (e.g., "what do you think will happen next?").

**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).

**fine motor** - abilities using the small muscles of the hands (e.g., grasping toys, picking up or holding food, connecting links, lacing, drawing, crushing paper, cutting with scissors, holding a writing utensil).

**functional language** - vocabulary used to communicate the description of, use of, and/or directions pertaining to an item or task (e.g., same/different).

**geographic thinking** - **observing** and interacting with **geography** and making geographic decisions based on those encounters.

**geography** - the study of the Earth and the human and physical phenomena that can be classified into five areas: location, place, human-**environment** interaction, movement, and region.

## GLOSSARY (continued)

**gross motor** - abilities using the large muscles of the arms, legs, and torso (e.g., walking, running, jumping, pedaling, throwing, and dancing).

**health and 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 foods, participates in games that involve movement, or washes his/her hands before lunch to remove dirt and germs).

**health care providers** - one's main physician and dentist, as well as other specialists who provide annual checkups and needed medical care.

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

**initiate** - to begin something, taking the first step.

**initiation skills** - socially acceptable ways to enter a group that is already engaged, such as mentioning a common interest (e.g., "I like cars too. Can I play race track with you?").

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

**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 (e.g., the upswing when a question is being asked, or the drop that marks the end of a complete sentence or thought).

**investigating** - observing or inquiring in detail.

**investigation** - systematic examination.

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

**life science** - the study of living organisms

**life/adaptive** - age-appropriate **skills** and behaviors necessary for children to move comfortably in a variety of social settings and to function safely and appropriately in daily life.

**literacy** - the ability to read and write.

**manner words** - words used to express appreciation, gratitude, or notice of an error (e.g., please, thank you, excuse me).

**music** - sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony.

**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.

## GLOSSARY (continued)

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

**observing** - regarding attentively or watching.

**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** - first sound(s) before the **rime** (vowel sound to the end of the word) (e.g., In the word dog, the **onset** is /d/ and the **rime** is “og”).

**oral health** - overall health of mouth, free of disease, defect, or pain. This translates to much healthy teeth.

**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).

**organizational language** - vocabulary used to communicate placement of an item and or provides direction towards an item (e.g., in front of, behind, next to, opposite, below).

**orientation** - the position 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.

**pantomime** - using gestures and facial expressions to tell a story, or role-play without speaking (e.g., pouting, smiling, or pretending to fly).

**pattern** - a repeating series of units.

**pattern unit** - the portion of a **pattern** that is repeated (e.g., in a red, blue, red, blue, red, blue **pattern**, the **pattern unit** is 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).

**phoneme** - the smallest unit of speech distinguished by the speakers of a particular language.

**phonological awareness** - the awareness that language is composed of sounds and the understanding of the relationships among these sounds.

**physical science** - science of non-living things in the physical world around us.

**pincer grasp** - the act of holding objects between the thumb and index finger.

**planning** - the process of mental preparation and problem-solving in order to accomplish an act (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).

**read alouds** - the teacher reading to the whole class, building on students' existing skills while introducing different types of literature and new concepts.

**recall question** - question asked of students to prompt them to recount the events of a story or occurrence.



## GLOSSARY (continued)

**receptive language** - the understanding of language that is heard (e.g., a child understands when 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 and critiquing one's own actions or one's own work (e.g., the child shares with the teacher what he/she did during center time).

**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** are the same object but in different positions).

**reporting** - trying to help keep a child or children out of danger because they may get hurt or they are being hurt (e.g., target/victim of a **bully**).

**rhombus** - A four-sided shape where all sides have equal length, opposite sides are parallel, opposite acute angles are equal, and opposite obtuse angles are equal.

**rhyme** - a match between the sounds of two or more words or word endings (e.g., spoon, moon).

**rime** - the vowel and any sounds that come after the vowel in a one-syllable word (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).

**scaffolding** - the provision of sufficient support to promote learning when concepts and skills are being first introduced to students (e.g., modeling, giving clues, asking questions, and providing verbal prompts).

**self-care** - the capacity to take care of personal needs (e.g., drinking from a cup, getting dressed, washing hands, making choices, toileting independently).

**self-regulation** - a deep internal mechanism that enables four-year-olds as well as adults to engage in mindful, intentional, and thoughtful behaviors. It involves children's ability to recognize their own impulses and respond to experiences with an appropriate range of immediate and delayed emotions.

**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.

**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).

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

**syllable** - a unit of spoken language consisting of a single uninterrupted sound formed by a vowel, diphthong, or syllabic consonant alone, or by any of these sounds preceded, followed, or surrounded by one or more consonants.

## GLOSSARY (continued)

***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.

***tableaux*** - a scene presented on stage.

***target*** - the victim or focus of a ***bully***.

***tattling*** - giving information to an adult to try to get another child or children in trouble when they aren't hurting themselves or others.

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

***trapezoid*** - a four-sided shape with one pair of opposite sides parallel.

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

***unit*** - what something is measured something by (e.g., centimeter [cm], foot [ft], inch [in], yard [yd]).

***vision screening*** - evaluation conducted to determine how well a child can see.

***visual arts*** - artwork, such as painting, photography, or sculpture.

***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 (e.g., "Dear" or "To Whom it May Concern"), ending a story with "the end," and similar regularly used practices.

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RESOURCES

RESOURCES



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