



The Work Sampling System®

The Work Sampling System is an instructional assessment that is used in preschool through third grade. Its purpose is to document and assess children's skills, knowledge, behavior, and accomplishments across a wide variety of curriculum areas on multiple occasions in order to enhance teaching and learning.

The Work Sampling System consists of three complementary elements:

- 1) Developmental Guidelines
- 2) Developmental Checklists
- 3) Summary Reports

The Work Sampling System calls for ongoing assessment that is summarized three times per year. By reflecting classroom goals and objectives, it helps teachers monitor children's continuous progress and places children's work within a broad developmental perspective. Through documenting and evaluating individual performance of classroom-based tasks, Work Sampling strengthens student motivation, assists teachers in instructional decision making, and serves as an effective means for reporting children's progress to families, educators, and the community.

Kindergarten Developmental Guidelines

5th Edition

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The Work Sampling System®



PsychCorp is an imprint of Pearson Clinical Assessment.

Pearson Executive Office 5601 Green Valley Drive Bloomington, MN 55437

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Development of The Work Sampling System was supported in part by a grant from the John D. and Catherine T. MacArthur Foundation. The opinions expressed are solely those of the authors.

Printed in the United States of America.

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For orders and inquiries:
800.627.7271
www.PearsonClinical.com

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Introduction

This volume presents the Work Sampling System Developmental Guidelines for Kindergarten in an edition designed for classroom use. For general reference use, the complete text of this edition, along with the Guidelines for five other grade levels, is included in the *Work Sampling System Omnibus Guidelines* (Preschool through Third Grade).

The Work Sampling System's Developmental Guidelines are designed to enhance the process of observation and to ensure the reliability and consistency of teachers' observations. The Guidelines incorporate research, expert advice, and state and national standards, including Common Core. All resources used in the formulation of the Guidelines are listed in the *Teacher's Manual*.

How to Read the Guidelines

The Guidelines present each specific skill, behavior, or academic accomplishment in the form of a one-sentence *performance indicator*. Each indicator is followed by a *rationale* and several specific *examples*. The rationale provides a context that explains the meaning and importance of the indicator and briefly outlines reasonable, end-of-the-year expectations for children of different ages. The examples show several ways children might demonstrate the skill, knowledge, or accomplishment represented by the indicator. These are intended to give teachers a concrete picture of the many different ways children might show their skill or ability in relation to the indicator. Examples are *not* attributes or behaviors that need to be checked off as necessary in order to demonstrate proficiency. Since different teachers may interpret the same indicator in different ways, the Guidelines promote consistency of interpretation and evaluation across children, teachers, and schools.

Although the examples provided for each indicator suggest a variety of ways that children show their skills and knowledge, they do not exhaust all the ways children demonstrate what they know and can do. The students in any particular classroom may show their knowledge in other ways, reflecting their unique backgrounds, interests, and classroom opportunities. We expect that our examples will serve as a catalyst to help teachers think of the range of situations in which children demonstrate specific skills and knowledge, and to understand and evaluate their students' performance within the context of their classrooms. Other examples that are more consistent with an individual teacher's curriculum approach can be added.

In the Guidelines, we have attempted to provide illustrations that are relevant to teachers who work with diverse groups of children. Examples that relate specifically to the development of children with special needs are included to suggest how teachers might assess children with disabilities who are included in regular classrooms. Rather than providing examples related to specific cultural or linguistic groups, we have tried to use inclusive or general language to accommodate children from various cultural, linguistic, economic, and social backgrounds. However, we have included performance indicators for English Language Learners to help measure an ELL's level of English language acquisition. These indicators are located within the Language and Literacy domain.

Developmental Checklist

To facilitate use of these Guidelines in classroom assessment, the Work Sampling System includes a companion Developmental Checklist, which lists the performance indicators and provides space to rate each child's performance three times during the school year. (A sample copy of the Checklist is bound in the center pages of this volume.)

I Personal and Social Development

Emotional and social competence are central to this domain. Teachers learn about children’s sense of responsibility to themselves and others, and how they feel about themselves and view themselves as learners—their emotional development—through ongoing observation, conversations with children, and information from family members. Teachers acquire information about children’s social competence and approaches to learning by interacting with them, observing their interactions with other adults and peers, and reflecting on how they make decisions and solve academic and social problems.

A Self-Concept

1 Demonstrates self-confidence.

Self-awareness and positive self-image emerge through interactions with others and through affirmative experiences. Confident 5-year-olds approach new tasks and situations enthusiastically, recognize and express emotions appropriately, and share information about themselves with others. They display a positive sense of self by:

- rushing into the classroom on Monday to tell their teacher and friends about visiting the science museum over the weekend;
- acknowledging sadness about the loss of a pet;
- observing other children’s group play activities before quietly beginning to participate;
- providing a simple explanation about their disabilities to able-bodied children;
- suggesting roles for themselves in dramatic play or the block corner;
- moving comfortably between social and solitary activities.

2 Shows initiative and self-direction.

Independence in thinking and action enables children to take responsibility for themselves. Most 5-year-olds can make choices among familiar activities, participate in new experiences, and are willing to take some risks. Children who choose familiar activities repeatedly and are hesitant to venture into new areas need help from adults in order to expand their independence. Some examples of initiative and independence are:

- finding materials for projects (e.g., glue to add their name card to a bar graph);
- selecting a new activity during choice time, such as trying the science area or using a new computer game for the first time;
- assuming classroom chores without being asked (e.g., sweeping sand from the floor, helping to clean up spilled juice);

- choosing to work on a social studies project because the activity interests them, rather than because friends are doing it;
- originating projects and working on them without extensive direction from the teacher.

B Self-Control

1 Follows classroom rules and routines.

Children who are successful within a group know and accept the rules established for that particular group. Five-year-olds are learning this skill and can be quite stubborn with their peers, insisting on adherence to the rules. They are comfortable when they know the routines and can plan their activities around the daily schedule. Ways that children show this ability include:

- moving their name tags to the “In” column to show their attendance at school;
- bringing a book with a torn page over to the book repair box;

I Personal and Social Development

- knowing that only three people can use a tablet at one time and writing their name on the waiting list to reserve a spot;
- following classroom expectations with the help of verbal or visual cues;
- using materials and equipment without breaking or destroying them;
- reminding other children of a rule they are not following.

2 Manages transitions and adapts to changes in routine.

Adapting to and accepting changes in routine is an important skill if children are to function comfortably in school. Five-year-olds are anxious to establish order in their lives and prefer consistent routines. However, because change is also a part of growth, children need to acquire flexibility in order to deal with change. Five-year-olds are beginning to adjust to changes and, with adult support, are beginning to learn that different situations call for different behaviors. Children show this flexibility by:

- going from home to school without anxiety;
- moving smoothly from one routine to another (e.g., from activity period to cleanup, or from story time to getting ready to go home);
- remembering to whisper when visiting the library;
- going to music class and following the music teacher's rules about where to sit;
- greeting visitors who come into the classroom and then continuing with their work;
- anticipating the afternoon assembly with pleasure, even though it means they will miss recess.

C Approaches to Learning

1 Shows eagerness and curiosity as a learner.

Five-year-olds are curious, active learners, excited about their environment and the wide variety of materials available to them in school. They enjoy using realistic props in dramatic play and experimenting with different artistic media. They are fascinated by audiovisual media and by technology. They can become very insistent when they have strong ideas about what they want to do. Examples include:

- showing interest in and asking questions about new apps, stories, and events related by other children;
- using play and a variety of different media to process new ideas and represent knowledge;
- demonstrating the meaning of “sinking” and “floating” by acting out how the rubber duck floats and the paper clip sinks;
- asking how the caterpillar can live in the cocoon with no food or water;
- using an open-ended drawing app on a tablet to sketch plans or a project;

2 Sustains attention to a task, persisting even after encountering difficulty.

Five-year-olds can attend to open-ended tasks they have chosen for reasonably long periods of time (20 to 30 minutes). However, it is more difficult for them to concentrate on tasks they have not selected or activities that require skills beyond their current abilities. When engaged in challenging tasks, they may need encouragement to continue. They are beginning to understand that making mistakes is an important part of learning and acquiring new skills. Some examples include:

- watching the new class gerbil eat and play on the wheel in the cage for most of choice time;
- making several attempts at solving a problem (e.g., trying different ways to attach tape when building a 3-D collage);
- continuing work on an illustrated book, creating pictures with some words over a series of days;
- attempting to fit all the blocks into the storage shelves, trying several different arrangements before asking for help;

- running out of time to finish a drawing and, with teacher guidance, deciding to finish it after outdoor play.

3 Approaches tasks with flexibility and inventiveness.

Five-year-olds are learning how to approach tasks and problems creatively and to attempt more than one way to solve a problem. Trial and error nurtures and encourages their creativity. Some children are reluctant to try new approaches because an unsuccessful outcome may be difficult to accept. After children have tried repeatedly to solve problems, it is important for them to know when and where to get help before they become too frustrated to persist at the task. Examples include:

- asking for and accepting suggestions for alternate ways to build a tall tower that will remain standing;
- using the light given off by a tablet screen to illuminate a book during nap time when the room is dark;
- using table blocks and small vehicles and figures to explain to a friend how they get to school;
- communicating frustration in an acceptable way after failing to accomplish a task;
- using sign language to ask for assistance when an approach to a task is not successful;
- using resources to spell words needed to write a sign.

D Interaction With Others

1 Interacts easily with familiar peers.

Knowing how to relate positively to peers and how to make friends is essential to children’s sense of competence. Five-year-old children can play cooperatively with one or more children, listen to peers and understand their feelings, and solve problems cooperatively. They are learning about what friendship means. They have preferences about who they want to play with and are sometimes tentative about interacting with peers they do not know very well. Examples include:

- playing cooperatively with a group of children during recess;
- following suggestions given by a friend about how to proceed in their play (e.g., deciding to build a fire station with the large hollow blocks in response to a friend’s suggestion);
- playing a game in split-screen mode, for two or more players (e.g., a racing game or a side-scrolling adventure);
- asking a friend politely to borrow the scissors and saying, “Thank you” when returning them;
- initiating an interaction with a child who is new to the class;
- giving assistance to a peer who is trying to tie his shoes.

2 Interacts easily with familiar adults.

When teachers build strong relationships with children, they set the stage for children’s openness to learning and academic success. Young children often have more experience talking and interacting with adults than with their peers. Five-year-olds who feel at ease with adults will show affection, respond to questions, initiate conversations, and follow directions given by familiar adults. Examples include:

- greeting the teacher or other adults when arriving in the morning;
- expressing curiosity about a new adult in the classroom by asking questions about who he is or why he is there;
- relating events and anecdotes to the teacher with ease and comfort;
- conversing with adults even if their speech is difficult for others to understand;
- following directions given by a parent volunteer about when to get off the bus during a field trip;
- interacting easily with other adults in the school, such as the custodian, the lunch room monitor, or the crossing guard.

3 Participates in the group life of the class.

Five-year-olds show a sense of community by contributing ideas, taking responsibility for events in the classroom, sharing

I Personal and Social Development

knowledge of classroom routines and procedures, and following rules in group games and activities. They can usually follow group expectations, especially if they have had previous school experience. Five-year-olds show their understanding of group life by:

- being part of the audience as well as an active participant in group events;
- pitching in to clean up the block area, even though they didn't work there today;
- following the rules for simple card games ("Go Fish" or "Concentration") and guessing games ("I Spy");
- hunting through toy containers to find the lost marker caps;
- offering to show a new classmate where they hang up coats;
- suggesting that the group votes to decide on the name of the class pet.

4 Identifies feelings and shows empathy for others.

Learning to recognize your own feelings and those of others is an important life skill. At age 5, children can identify many of their own feelings. They can recognize the emotions of others from their actions and facial expressions. Children can express care and understanding for others' feelings in a variety of situations. Examples include:

- asking a few children to come and admire their huge block structure;

- telling a friend that they are upset and need help finding a lost toy;
- showing a new student around the room and telling her or him about center activities, rules and routines;
- sharing a friend's excitement about going to a baseball game;
- showing concern for a friend who has been excluded from a game;
- carrying something for a child who is using crutches.

5 Uses simple strategies to resolve conflicts.

An initial step in conflict resolution is recognizing when there is a conflict and getting help to solve it. Communicating and using varied strategies to resolve conflicts (e.g., "fair trades" or taking turns by mutual agreement) are emerging skills for 5-year-olds. They still need adult support and modeling to use words to solve problems, suggest possible solutions, and participate in compromise. Children show they are learning these skills by:

- asking for help when a second child wants to use the same blocks;
- using a tablet as a timer to help mediate turn-related disputes;
- asking the teacher to set the timer so each person will know how long he or she can use the computer;

- negotiating with another child to divide the markers and determine how many each will use;
- settling a dispute with another child through negotiation, addressing their own rights as well as accommodating the other child's needs (e.g., "I'll use the paste for these two pieces of paper and then give it to you.");
- using words suggested by an adult to settle conflicts.

II Language and Literacy

The language and literacy skills needed to understand and convey meaning are presented in four components: Listening, Speaking, Reading, and Writing. Students acquire proficiency in this domain through experience with language, print, and informational text and literature in a variety of contexts. Over time, students learn to construct meaning, make connections to their own lives, and gradually begin to analyze and interpret what they hear, observe, and read. They begin to communicate effectively orally and in writing for different audiences and varying purposes.

Language and Literacy for English Language Learners (ELLs) consists of three functional areas: Listening, Phonological Awareness, and Speaking. Depending on the grade level, these areas contain performance indicators such as Gains Meaning by Listening, Follows Directions, Develops Awareness of the Sounds of English, Speaks in Social Situations, and Communicates for a Variety of Purposes, Using Expanded Vocabulary. As with all other performance indicators, there are three ratings, although grade-level expectations of mastery for ELLs are not given since children can come to school at different ages with varying levels of English language acquisition.

A Listening

1 Gains meaning by listening.

Five-year-olds can listen for meaning in different situations such as one-on-one conversations with children or adults, small and large group activities, story times, and when using e-books and other media. They demonstrate their attentiveness through body language, eye contact, and active participation. They show their understanding by asking and answering questions, making comments relevant to the topic, and reacting appropriately to what is heard. Examples include:

- using information from a story about transportation to create a city in the block area;
- asking a question to clarify their understanding of a video about bears;

- showing understanding during a group discussion by leaning forward, frowning, or smiling;
- recognizing the intent behind the words of peers (e.g., accepting an apology given for causing an accident);
- listening to two versions of a folktale and pointing out subtle differences between the two;
- confirming understanding by asking and answering concrete (e.g., who, what, where) and abstract (e.g., how, when, why) questions about key details and requesting clarification if something is not understood.

2 Follows directions that involve a series of actions.

Five-year-olds can follow three- and four-step directions immediately after they hear them, but sometimes forget instructions over time or become distracted

before they can complete a longer series of actions. Increasingly, they are able to follow directions outside of normal classroom routines. Examples include:

- understanding teacher directions given to the class without asking the teacher to repeat them;
- following a set of instructions without reminders (e.g., going out to recess without forgetting any steps in the routine);
- following directions to leave the classroom earlier than other children to deliver a message to the school office and then meeting the class at the door to the playground;
- following a multistep sequence of directions at the start of a tablet-based game (e.g., swipe up to jump or tilt the screen left or right to jump) in order to earn points;

- remembering instructions given earlier (e.g., going to the circle area after snack today rather than to the quiet reading area as usual);
- relating a set of instructions to a classmate.

B Speaking

1 Speaks clearly and conveys ideas effectively.

By the end of kindergarten, children can express their ideas coherently in group discussions and in one-on-one conversations. They use question words effectively to gain information. Kindergartners can use many rules of standard English including using regular plurals, tenses, and the most commonly occurring prepositions correctly. Their sentences become longer and more complex as their knowledge becomes richer and more detailed. Examples include:

- asking “How?” and “Why?” questions in sentence form rather than by using only a word or two;
- initiating conversations with peers about what they did over the weekend;
- participating in conversations around the snack table or on the playground and speaking loudly enough to be heard by the group;
- relaying a message from the teacher to the school nurse;

- describing in detail familiar people, places, things, and events;
- recording a story about their weekend and playing it for their peers.

2 Uses rules for conversation and discussion.

Five-year-olds participate in collaborative conversations by initiating them, taking turns in group discussions, and making comments related to topics being discussed. They can ask and answer questions about a topic and continue a conversation through multiple exchanges. Examples include:

- using question words to get more information about a topic (e.g., who, what, where, when, and how);
- waiting for their turn in a group before talking about their favorite movie;
- contributing their experience about taking a train during a class discussion about transportation;
- initiating a conversation with a visitor to the classroom;
- asking questions about an event reported by another child;
- adjusting or muting the volume on a device so that others can hear, or so that it doesn't interrupt others.

3 Uses expanded vocabulary and language for a variety of purposes.

During kindergarten, children's vocabularies expand rapidly from conversations with others and listening to books read aloud. They can learn new meanings for familiar words and distinguish shades of meaning. To figure out the meaning of an unfamiliar word, they can use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less), as well as context clues. They apply new vocabulary as they use language for many purposes, such as giving directions, explaining events, expressing preferences, asking questions, and describing objects. Examples include:

- telling a joke to a friend or making up new jokes (e.g., “Knock Knock” joke);
- identifying synonyms and antonyms of familiar words (e.g., happy/glad, happy/sad);
- distinguishing shades of meaning among verbs (e.g., acting out the meaning of build, construct, create, design or hit, pound, strike);
- explaining the steps to a board game;
- guessing the meaning of an unfamiliar word based on context clues;
- discovering new words from the popup labels inside an e-book and using them appropriately later in a conversation.

4 Begins to present knowledge and ideas.

Kindergartners can depict their knowledge about events, objects, or people by drawing simple pictures accompanied by some letters and words. They are beginning to be able to present verbally, using two or three sentences to share their knowledge about concrete events or objects. If they are very engaged or interested in a topic or idea, they can elaborate further. However, 5-year-olds are less able to formulate their own ideas and differentiate them from other people’s ideas. Examples include:

- displaying photographs of two types of sharks, pointing out how they look different, then describing what they eat;
- recalling a trip to the lake and what they liked there, speaking loudly enough to be heard by everyone in the class;
- describing their new baby brother or sister;
- showing their new electronic game and explaining how to play it;
- explaining to the class what happened when the family car stalled and could not be started again.

C Reading

1 Shows some understanding of concepts of print.

Kindergarten children are beginning to understand how print works. They know that print

conveys meaning, spoken language can be written down and read, and that a particular word is always written using the same specific sequence of letters. They recognize all upper- and lowercase letters, and are beginning to recognize some words. They begin to recognize how print is organized, understanding that words are written from left to right and from the top of the page to the bottom with spaces between words. Examples include:

- naming the letters of the alphabet regardless of case or sequence;
- beginning to “read” a favorite book using pictures as clues and gradually recognizing words that are repeated in the text;
- distinguishing letters from numerals on a QWERTY keyboard;
- sweeping a finger from left to right across print on a page as they “read” a favorite story from memory;
- writing a caption of a few words separated by spaces going from left to right and top to bottom under a drawing of a truck.

2 Demonstrates phonological awareness.

Kindergartners can hear the smallest units of sound within words (phonemes) and focus on these sounds separate from the meaning of the word. They can recognize and produce rhyming

words, discriminate syllables, and by the end of the year can identify phonemes within single syllable words. Specifically they can identify beginning sounds, ending sounds, and medial vowel sounds. They can blend spoken sounds (e.g., /s/ /i/ /t/ makes sit) and segment (e.g., cup is made up of /c/ /u/ /p/) spoken words, as well as blend and segment onsets and rimes in single syllable words. Examples include:

- creating two sentences with final words that rhyme after listening to a rhyming book;
- segmenting “cat,” saying that “cat” has three sounds: /c/ /a/ /t/);
- naming the word left when you take away the /b/ from “bat;”
- noting that the word “bulldozer” is made up of three syllables, “bull,” “doz,” and “er;”
- isolating and pronouncing the initial sounds, medial vowels, and final sounds in three-phoneme words (e.g., there are three sounds in the word “truck:” /tr/ /u/ /ck/);
- recognizing how words change if a sound is added or removed (e.g., if you add the /j/ sound to the word “chain,” you get the word “change”).

3 Begins to use phonics and word analysis skills to decode.

By the end of kindergarten, 5-year-olds begin to understand the systematic relationship between letters and sounds. They know the alphabetic prin-

ciple: letters represent sounds and a group of letters represents a sequence of sounds that combine to form a word. They can produce the most common sound for each consonant and the long and short sounds for the five major vowels. They begin to sound out words, using the letter–sound correspondences they know and also have a small sight vocabulary. Examples include:

- sounding out simple words as they write in journals or make captions for pictures;
- playing games that match letters and their most common sounds;
- reading common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does);
- writing simple sentences using three- and four-sound words that they have learned to decode along with site words;
- looking closely at words in a book and announcing that they know “cap” and “cat” are different words because the letters at the end make different sounds;
- writing a short sentence using invented spelling.

4 Shows understanding of the structure of text.

Through repeated exposure to literature and informational text, kindergartners can be expected to understand that authors write apps and books, illustrators draw pictures, and books convey infor-

mation or stories. They know how to handle books and can find the front cover, back cover, and title page. Five-year-olds listen attentively to stories and develop preferences for books by certain authors or about topics of special interest. They recognize different types of text (e.g., stories, poems, information books, grocery lists, signs, labels). Examples include:

- using books to find out about road-building machinery or to locate the name of a particular dinosaur;
- asking a question about an unknown word in a familiar book, with teacher prompting;
- sharing in circle time that they just read another book by Eric Carle and explaining his role as the author and illustrator;
- predicting what a book might be about after looking at the front cover;
- pointing to where the teacher should begin reading;
- listening to a story on a tablet and following along, swiping the pages at the correct time.

5 Recounts key ideas and details from text.

As kindergartners listen to or read literature and informational text, they demonstrate their comprehension of main ideas and details in a variety of ways. They can discuss and retell stories. With teacher assistance, they can convey the order of events, include details, and describe more story elements (e.g., characters, setting,

plot). They can ask and answer questions about main ideas and key details in text. Five-year-olds can describe how two characters relate to each other in a story and how two pieces of information are connected when reading informational text, when they have teacher support. Examples include:

- predicting what will happen to characters in a story based on the characters’ actions;
- using an app to retell a story by dragging and dropping events in sequential order indicating the beginning, middle, and end;
- listening to stories or nonfiction books without illustrations and creating original illustrations to enhance the story;
- describing details from a story after it was just read;
- predicting what will happen to characters in a story based on the characters’ actions thus far.

6 Begins to analyze and integrate knowledge and ideas from text.

Kindergartners are just beginning to analyze text that is read to them. After they become familiar with a text, they begin to relate their own experiences to what they have read, and begin to compare and contrast the activities and experiences of characters. With teacher prompting and support, they begin to make other connections. They can link different parts of a text (e.g., individuals, events, ideas, informa-

tion) and link illustrations to the messages being conveyed. When reading informational text and prompted by the teacher, they begin to analyze the similarities and differences between two texts on the same topic, and are just beginning to be able to identify the reasons an author gives to support points made. Examples include:

- discussing two books on weather and determining that they liked the one best that had more and colorful illustrations;
- comparing and contrasting information presented in a fictional story (e.g., “The Very Hungry Caterpillar”) with a nonfiction book about butterflies;
- describing how Goldilocks and the bears were the same and different;
- drawing a new picture of a turtle after studying pictures in books and on the Internet;
- connecting events in a story to an event in their own lives.

7 Begins to read for varied purposes.

Kindergartners are excited by their beginning reading skills and enjoy demonstrating them whenever they can. They notice print in their environment and often try to read it. They read for information and pleasure. Examples include:

- reading the Morning Message each day as they arrive at school;

- asking the teacher to help them find a book they can read about police officers;
- choosing a favorite storybook with some words they can decode and reading it;
- attempting to read signs and labels in the environment;
- examining a magazine about cars and asking questions about particular illustrations;
- finding a book or app about frogs and reading about tadpoles with adult help.

D Writing

1 Begins to use writing strategies to convey ideas.

Five-year-olds understand that words represent things, ideas, and events, and that letters make up words. They can focus on an idea for a story and make a simple plan for expressing it. They combine drawing, dictating, and writing to convey their opinions, describe events, and explain ideas. Examples include:

- dictating a story to the teacher about the class trip to the farm;
- building a city with small blocks and using pretend people to act out stories in the city;
- dictating the sequence of a story and asking the teacher to write it down;
- creating an original work of nonfiction using pictures and words from a list of accumulated facts about a topic;

- contributing to or creating stories from a starter (e.g., “Once upon a time, there was a....”);
- drawing and writing on a touch screen while verbally describing what is happening on the screen.

2 Uses letter-like shapes, symbols, letters, and words to convey meaning.

Kindergartners begin writing by forming words with the letters from their names, copying words, approaching others for help to spell words, sounding out words using letter–sound associations, and using invented or temporary spelling. By the end of kindergarten, children can print many upper- and lowercase letters and know the conventional spelling for some words. They also understand that sentences start with a capital letter, ‘I’ is always capitalized and sentences end with some form of punctuation. Examples include:

- writing their names on their artwork;
- using a QWERTY keyboard and computer to experiment with letters and simple words;
- drawing a picture of a computer in their journal and using invented spelling to write “I LK CMPTRS;”
- using invented spelling to form words with initial and final consonants;
- writing a simple sentence using known site words, letter–sound rules, and invented spelling;

- using upper- and lowercase letters but not always using the correct case.

3 Understands purposes for writing.

Children begin to understand the power of written words when they see that messages (e.g., “Please Leave Standing” on a sign in front of a block structure) have an impact. Over time, they recognize that there are different types of writing (e.g., stories, signs, letters, lists) with different purposes. Children’s understanding of writing as a symbolic form of communication that conveys messages motivates them to write on their own. Examples include:

- copying words to convey messages (e.g., “Stop,” “Go”);
- making lists of “Things I like to do” or favorite songs;
- copying a note to take home;
- writing explanatory text (e.g., information about guinea pigs and why they make good pets), using a combination of drawing, dictating, and writing;
- writing or dictating a short, simple poem with rhyme and repetition, with adult support;
- responding to their favorite story by drawing and writing about it.

4 Begins to use feedback to add detail to writing.

Kindergartners are excited by writing and can write words and

short sentences by the end of the school year. However, they need support and guidance from the teacher to make revisions in their drawing or writing. They can add some detail to simple sentences, but it is difficult for them to start over and revise the actual writing of a sentence. They can revise pictures by adding details to an already drawn picture. Alone or with peers, they can use a variety of digital tools to produce their writing. Examples include:

- retelling a story the teacher has read by using a few words, invented spellings, and drawings of the story, then sharing their story with peers;
- adding details to a picture of a story based on comments by the teacher;
- writing a few words or sentences about a story first on unlined paper and then copying it onto lined paper to make it more like conventional writing;
- adding details to a picture of a character from a story after a conversation with the teacher or a peer;
- responding to suggestions from peers to add details to strengthened writing, with teacher guidance and support.

5 Begins to gather and use information for research purposes.

Kindergartners are beginning to gather information on a topic in

small groups with the guidance and support of the teacher. They can use pictures for their informational value and begin to use computers or tablets to gather information from the Internet with help from teachers. They can suggest ways to gather information from different kinds of books and pictures. Examples include:

- representing information gained through observation, experience, or research by drawing, painting, constructing or writing;
- conducting simple research about weather by looking at several books provided by the teacher and representing what they find out;
- predicting what they might learn about a topic from their research, investigation, and observation and after completing the research, reflecting on whether or not their predictions were accurate;
- studying a topic at school (e.g., botany, weather, water) and asking parents or teachers for more information;
- cutting and pasting royalty-free images of butterflies (with adult support and guidance) from online photo galleries, then checking one other source to make sure that the butterfly has been correctly identified.

Language and Literacy for English Language Learners

A Listening for English Language Learners

1 Gains meaning by listening.

Not Yet

At the very earliest stage, preschool and kindergarten children learning English are generally quiet and initially unresponsive to routine classroom activities and conversations (e.g., greetings or putting materials away), but may observe other children and copy their behaviors. They may not consistently attend to listening activities. They respond to oral encouragement only with frequent coaxing and modeling. They may or may not respond orally to questions with a prompted answer (e.g., the teacher says, “What is your name? Say, ‘Maria.’” The student responds, “Maria”).

In Process

Preschool and kindergarten children in the process of learning English begin to show understanding of simple language and express themselves in limited ways. To demonstrate comprehension, children may select or point to pictures or objects from oral descriptions, (e.g., “Where is the red truck?”) or respond to listening activities by placing objects in the correct place (“Put the book on the shelf”). After

listening to a story, they may be able to put pictures of the story in the correct order. They begin to respond to yes/no questions and other simple questions with one word answers, but sometimes respond to questions in their native language. As their understanding and expressiveness increases, they begin to participate in singing activities.

Proficient

Children who have experience learning in a language-rich environment demonstrate their understanding of English in a variety of ways. They can understand most school conversations and most grade-level vocabulary, and respond to verbal directions immediately without needing additional gestural cues or modeling (e.g., “Carlos, please return the homework papers to everyone”). In large groups, they follow discussions and respond voluntarily to questions. They appreciate stories read to the class and show comprehension of stories by identifying main ideas and supporting details, drawing pictures that illustrate a story, and retelling stories in short sentences.

2 Follows directions.

Not Yet

As young children begin to learn English, they show no understanding of entirely verbal teacher directions. They will complete tasks only if a teacher intervenes, models, and encourages them. They remain quiet and make no attempt to respond orally or through actions. They sometimes model the behavior of other children after observing them.

In Process

With more experience in school, English language learners begin to follow directions under certain circumstances. At times, they show a desire to participate by responding immediately to directions; other times they watch others for clarification about what to do. As their confidence increases, they may ask for repetition of directions (e.g., “Teacher, please say again.”) or complete one or two steps of a multistep direction. Taking additional time to understand directions before being expected to respond, hearing a story again, and listening to a description for the second time all help English language learners follow directions successfully.

Proficient

English language learners proficient at following directions can understand, respond, and restate directions. After being given a set of directions, children can explain the directions to a classmate, although sometimes they use their native language to do so. They can listen to instructions for making a product and then restate the directions for themselves and others (e.g., “First, we collect the pieces. Then we put them in order. Then we glue them together.”). At this point, they can easily complete classroom tasks given only verbal directions.

B Phonological Awareness for English Language Learners

1 Develops awareness of the sounds of English.

Not Yet

Initially, children learning English may have difficulty distinguishing the sounds of English. They may confuse sounds in English and may substitute one sound for another, frequently one from their native language. For example, they may substitute /b/ for /p/ and say ‘ben’ instead of ‘pen.’ When repeating words that they hear, they commonly omit the final sounds. If children are given a word and asked to choose the picture that matches the word, they may select an incorrect picture or seem confused (e.g., when

asked to point to the cat, they may choose ‘cap’). When given choices of words that rhyme, children may guess, or select words that do not rhyme or not respond at all.

In Process

As English language learners begin to hear and recognize the sounds of English, they make progress in many areas. They may enjoy songs and try to sing along, but substitute incorrect words or sounds for unknown lyrics (e.g., may sing “Ole Macdona had a farm. . .”). Most of the time, they can identify rhyming words. They begin to distinguish some sounds such as /t/ and /d/, but others such as /l/ or /r/ may be more challenging. When given a task involving sounds, they often respond with a nonsense word (e.g., when asked for a word beginning with the /p/ sound, they might respond with ‘pob’). When given a word and asked to select the corresponding picture, they may select the picture without regard to sound carrying meaning (e.g., given the word ‘giraffes,’ they may choose a picture of one giraffe, ignoring the final ‘s’ sound).

Proficient

At this level, English language learners can recognize and manipulate sounds in a variety of different situations. They can identify the number of syllables in words by clapping them out and select rhyming words from

an oral list. They can create new words from a given word by replacing the first sound with a different one (e.g., replace the /b/ in ball with a /t/ to make tall). They can identify the sound three words have in common (e.g., sun, salt, seen), and find things in the environment that begin with the same sound (e.g., cup, coat, cubby).

C Speaking for English Language Learners

1 Speaks in social situations.

Not Yet

Children new to English initially speak in their native language as well as when conversing with others of the same language background. They can be quiet and unresponsive when the teacher asks them to repeat a new word or inconsistently attempt to say new words.

In Process

As children spend more time in English language environments, their first sentences are often formulaic speech, words used frequently in the classroom and in social situations such as, “Good morning,” “Hi,” or “How are you?” With more experience, they use known phrases in appropriate situations (e.g., saying “thank you” when given something or “goodbye” when leaving). Children sometimes use a variety of language “chunks,” unanalyzed phrases or sentences (e.g., “Gimme that,” “I go,” or

“What’s that?”).

At this stage, children may speak to their peers in comprehensible language but not respond to the teacher. When they do respond to questions, they usually use one or two words. They may combine languages, often in one sentence when they substitute a word from their native language into an English phrase or sentence (e.g., “I live in una casa.”).

Proficient

Children are considered proficient when they greet others, ask for help, respond voluntarily to questions, willingly participate in whole- and small-group discussions, and understand and participate in conversations with classmates. At this level, they can use language to demonstrate comprehension (e.g., they can retell stories in short sentences that may not be grammatically correct, but that demonstrate an accurate understanding of the main events and key details of the story).

The Work Sampling System

III Mathematical Thinking

This domain's focus is on children's approaches to mathematical thinking and problem solving. Emphasis is on how students acquire and use strategies to perceive, understand, and solve mathematical problems. Mathematics is about patterns and relationships and about seeking multiple solutions to problems. The content of mathematics (concepts and procedures) is stressed in this domain, but the larger context of understanding and appreciating (knowing and doing) how mathematical processes can be used is also of great importance.

A Processes and Practices

1 Makes sense of problems and uses simple strategies to solve them.

Solving real-life problems helps children make connections between the math they are learning at school and other parts of their lives. Kindergartners can make sense of problems by acting them out, drawing pictures, and using counters to represent objects. With guidance, they learn some simple strategies to solve problems and persevere until they find an answer that "makes sense" to them. Examples include:

- saying, "Hey, there's only three gerbils in the cage but I know there are five;"
- building a house with blocks, using a photo as a model;
- solving a problem by guessing and checking (e.g., figuring out how many apples are needed for snack if each child is served half an apple);
- solving a variety of joining and separating problems;

- asking questions to clarify problems (e.g., "Will the new rabbit cage be big enough for all the baby bunnies?").

2 Reasons quantitatively and begins to use tools.

With experience and support, kindergartners reason quantitatively with numbers to 10. They can respond to "How many?" questions and when presented with a story problem, they can reason and apply the operations to solve it. As they use objects as tools and explore technology (e.g., e-tools, digital math stories, graphic tools), they can develop fluency with number combinations and a conceptual understanding of number quantities. Examples of their quantitative reasoning include:

- using a ruler to measure two lengths and explain which is longer;
- grouping Unifix® cubes in sets of 10 to count "How many?" quickly;
- experimenting with counters to solve missing addend problems;

- using connecting cubes to show that putting two odd numbers together always makes an even sum;
- using fingers to add two and two together and answer, "Shantelle had two apples. Her friend gave her two more. How many does she have now;"
- telling a story about farm animals, counting them as they put each animal in the barn, and saying how many animals are now all together.

3 Uses words and representations to describe mathematical ideas.

Five-year-olds represent their thinking by using objects, fingers, drawings, their body, and symbols. With guidance, they can use precise vocabulary to communicate mathematical ideas. They can also model their ideas using manipulatives and mathematical symbols. Their representations help children retain information and allow them to reflect on their problem-solving strategies. Examples include:

- drawing a picture of a LEGO® structure they made so they can rebuild it the next day;
- recording answers to problems using numerals and pictures;
- using mathematical terms like “more,” “the same as,” “fewer than,” “hexagon,” “sphere,” “heavier than,” and “longer than;”
- explaining a sorting rule for a group of objects by saying, “These are the big triangles;”
- using apps to construct items out of geometric shapes (e.g., tangram puzzles) by dragging and dropping the shapes onto a template.

4 Identifies patterns and makes generalizations.

Kindergartners look for, identify, and extend shape and number patterns. When given opportunities to explain their thinking, they begin to use repeated reasoning as they describe how patterns work. As they notice repeated groupings of 10, they begin to understand and explain the structure of the base ten system. Examples include:

- using letters and numbers to describe an existing pattern (e.g., an A-B-A pattern is the same as a 1-2-1 pattern);
- identifying the counting pattern in 20s, 30s, 40s, 50s, 60s, 70s;
- generalizing the counting pattern that occurs after 100 based on patterns they noticed from 1 to 100;

- using apps to make patterns using a hundreds chart;
- finding the missing numerals on the hundreds chart;
- listening to a growing pattern story (e.g., “Snores On” or “Mrs. McTats and Her Houseful of Cats”), showing how many animals there are on each page and predicting how many will be on the next page.

B Number

1 Counts with understanding.

Kindergarten children can accurately count a set of 10 to 20 objects using one-to-one correspondence and recognize and correct errors. If they can identify the counting pattern, they can count verbally to 100. With experience, they can count backwards from 10 to 1 verbally or when removing objects from a group. Kindergartners are just learning that the next number in the counting sequence is one more than the number just named. Examples include:

- continuing counting objects to 10 after a friend stopped at 6;
- explaining that there are 17 people at the circle today, after counting them aloud with their classmates;
- associating the correct numeral with sets of up to 10 objects;
- correcting Silly Sam, the class puppet, when he leaves out 16 as he counts to 20;

- counting in different languages by showing children how to toggle between languages when using language choice option apps.

2 Shows understanding of number and quantity and begins to understand relationships between quantities.

Kindergartners can represent quantities with objects and use numerals to label them. As they compare sets by matching or ordering numerals, they show their understanding of the relationship between quantities. They can compare two sets with up to 10 objects and use vocabulary like “more,” “less,” “equal,” or “the same number as.” Five-year-olds can verbally label most arrangements of six to 10, especially when they are organized by using ten-frames, tally marks, dice, or domino representations. Some 5-year-olds can make realistic estimations about small quantities. Examples include:

- knowing that 5 is closer to 1 than it is to 20;
- starting with a set of 25 objects and experimenting with different ways to create smaller sets;
- making different models with blocks or other manipulatives of quantities to 20;
- looking at pairs of sets and identifying whether each set has the same or different numbers of items;

- modeling numbers to 30 on ten-frames (e.g., showing 16 as 1 ten and 6 ones).

3 Begins to estimate quantity.

Because of their understanding of number quantity, kindergartners can begin to estimate quantity with reasonable accuracy. In other words, they can give a range of answers as an estimate and the actual answer will be within that range. Examples of how 5-year-olds do this include:

- estimating if there are more than 30 objects in a bag and checking their estimate by counting out the objects on three ten-frames;
- explaining, “My estimate of 28 is good because it’s six away from the real answer to how many bears are in the jar;”
- using estimation vocabulary meaningfully to describe quantities (e.g., about, almost, between ___ and ___, more than, and fewer than);
- explaining their estimate that there are more than 30 people in the kindergarten class at one time;
- explaining why an estimate would not be reasonable (e.g., “There are about 100 pet gerbils in the kindergarten class next door.”);
- using apps that estimate quantities at a glance and then move to a harder level.

C Operations and Algebraic Thinking

1 Understands and applies addition and subtraction to problems.

Five-year-olds understand addition as putting together and adding to and subtraction as taking apart and taking from. They can model and solve joining, separating, and part-part-whole problems using addition and subtraction with sets of objects. With guidance, they can begin to write number equations illustrating the process. Kindergartners begin to understand words like “total,” “all together,” “left,” and a variety of meanings for “more.” Examples of their understanding include:

- adding on to five objects to make seven without needing to count from one;
- modeling $3 + 3$, counting all objects, and then recognizing an equation that models the action: $3 + 3 = 6$;
- identifying the missing part in a problem and explaining the solution (e.g., “The sign said there were seven zebras in the zoo enclosure. Tony only saw four. How many were hiding?”);
- using simple strategies for answering quantitative questions (e.g., fingers to show adding or counting on);

- answering questions by counting all the objects in a combining problem and counting the objects that are left in a set after some are taken away;
- investigating strategies for creating different quantities (e.g., using red and blue cubes to find that seven can be made with two red cubes and five blue cubes or three blue cubes and four red cubes, etc.).

2 Demonstrates basic number combination and computational fluency.

Children demonstrate two types of mathematical fluency. Kindergartners demonstrate basic number combination fluency by quickly and accurately recalling sums and differences to five. They demonstrate computational fluency by using flexible methods to accurately add and subtract numbers to 10. Examples include:

- creating many different combinations of five objects quickly (e.g., $1 + 4$, $3 + 2$, $2 + 3$, etc.);
- looking at the table and seeing three napkins and immediately grabbing two more because there are five places for children to sit;
- memorizing all addition and subtraction combinations up to five and repeating them quickly and accurately;

- using the relationship between addition and subtraction to explain that equations can be used to solve problems (e.g., $2 + 7 = 9$ so $9 - 7 = 2$);
- figuring out quickly that 6 blocks are needed to make a 10-block stack in order to make two sides of the block building the same;
- matching numbers in apps that use units of currency.

3 Begins to understand the base ten system (place value).

Five-year-olds can decompose the numbers 11 to 19 into sets of tens and ones. In addition, they can compose teen numbers using 1 ten and some ones. Their understanding of tens and ones is foundational to an understanding of place value. Examples include:

- using Unifix cubes to make 1 ten-rod and 4 single cubes to represent 14;
- creating a representation for 19 using 2 ten-frames, completely filling 1 ten-frame and placing 9 in another ten-frame;
- writing the numeral 17 to answer a “How many?” problem after seeing a place value model of 1 ten and 7 ones;
- explaining that 15 cubes is the same as 1 ten-rod of cubes and 5 individual cubes;

- changing counters on 2 ten-frames with 6 on one and 8 on the other, to make 10 on one and 4 on the other, to illustrate the number 14;
- representing numbers and number relationships on a number grid.

D Measurement

1 Orders, compares, and describes objects by size, length, capacity, and weight.

Kindergartners can describe and directly compare measurable attributes of objects. They use descriptive vocabulary to describe how tall, wide, or long objects are (lengths); to describe how much something covers (areas); how much something holds (volume or capacity); or how heavy something is (weight). These direct comparisons of length, volume, and weight form the foundation for more complex measuring activities. Examples include:

- arranging six or seven rods from shortest to longest;
- making a display of several stones, arranged from the lightest to the heaviest;
- using a string or paper strip to compare the lengths of two objects;
- noticing that the outside door is heavier than the classroom door;

- comparing the volume of two boxes by filling both with cubes and then directly comparing the rods formed by each set of cubes;
- counting how many orange pattern blocks cover two different rectangles to see which rectangle takes up the most space.

2 Begins to understand measuring processes and tools.

Five-year-olds show interest in the tools and instruments used by adults, although they are just beginning to explore conventional measurement tools. They begin to estimate and measure using nonstandard and standard units. With guidance, they use such units as a foot, hand span, paper clip, or block to measure objects. They can use paper strips or string to measure how far an object travels. Examples include:

- using a balance scale when comparing the weights of objects;
- asking for a yardstick so they can see if their block building is taller than the yardstick;
- using a length of string to compare the heights of two plants;
- guessing whether or not a container is big enough to hold all the marbles;
- measuring the length of a table with Unifix cubes;
- estimating that a bird’s nest weighs the same as five counters.

E Data Analysis

1 Begins to collect, classify, and represent data.

Collecting data, graphing, and interpreting results provide meaningful opportunities to count and make comparisons. Initially, 5-year-olds are more interested in specific instances of data and lists (“Terry lives in a house and I live in an apartment.”) than in classifying data into categories (10 children live in apartments, 8 live in houses, and 4 live in mobile homes). With teacher guidance, they can pose questions, collect data, and organize their observations using concrete objects, pictures, graphs, and lists. Examples include:

- setting up a chart in the block area to record who chooses to use blocks each day;
- looking at the graph that shows different ways children get to school and counting seven children who take the bus and six who are walkers;
- listing the different types of food given to the hamster and discussing how much he ate;
- predicting that seven children will buy lunch tomorrow after looking at the graph showing which children brought or bought lunch last week;
- using apps that build sets using virtual unit blocks.

F Geometry

1 Shows understanding of and uses direction, location, and position words.

Children learn positional vocabulary as they develop spatial awareness and recognition of symmetry and balance. Through discovery, experimentation, and experience, children form beginning understandings of direction (which way?), distance (how far?), and location (where?). Examples include:

- placing an object inside and outside, behind and in front, under and above, beside and on a box, and describing its changing locations;
- commenting that an object is nearer to me and farther from you;
- identifying who is sitting beside the teacher and who is sitting in front of her;
- giving directions to a partner in the block area to place the curved block on top of the long rectangle block;
- using direction, location, and position words spontaneously as they participate in play activities;
- moving and positioning shapes into place in order to clear a screen or move up a level on a computer-based game.

2 Recognizes and describes some attributes of shapes.

When kindergartners use unit blocks, table blocks, pattern blocks, shape sorters, peg boards, and geoboards, they gain a concrete understanding of shape and form. They can identify, describe, label, and create a variety of common 2-D shapes and solids (e.g., circle, square, triangle, rectangle, cube, sphere, cylinder) and begin to describe their attributes (e.g., corners, curves, edges). Examples include:

- noticing that some pattern blocks have six sides and are yellow and some blocks have three sides and are red;
- creating (e.g., drawing, folding, cutting) models of circles, squares, rectangles, and triangles with varied materials (e.g., crayons, a geoboard, folding paper);
- describing characteristics of shapes (e.g., a triangle has three straight sides);
- understanding that two triangles, even if they are oriented differently in space, are still triangles;
- recognizing that equilateral triangles, triangles with sides of different lengths, triangles with oblique angles, and triangles with right angles are all triangles;
- using a “magic paintbrush” effect within an app by using their finger to reveal hidden objects by rubbing away a layer.

3 Composes and decomposes shapes.

Kindergartners can compose a 3-D shape using three or more 3-D blocks. They can compose simple shapes to form larger shapes. Five-year-olds can fill puzzles that suggest the placement of each shape. They can rotate and flip shapes intentionally to fit in the puzzles. Examples include:

- analyzing a puzzle piece carefully before placing it correctly in a shape puzzle or picture;
- flipping or rotating a piece to fit within an outline of a 2-D shape puzzle;
- using 3-D tangram shapes and putting them together to make a large 3-D rectangular prism;
- helping a peer with the placement of a puzzle piece by suggesting that they “move it” with words or gestures;
- joining two triangular magnetic tiles to fit a rectangular space;
- building a 3-D structure with cylinders and prisms to match a 2-D picture of a rocket launcher as seen on a computer program.

IV Scientific Thinking

The central areas of scientific investigation—inquiry skills and practices; physical, life, and earth sciences—are addressed in this domain. Also emphasized are the processes of scientific investigation because process skills are embedded in and fundamental to all scientific inquiry, instruction, and content. The focus in this domain is on how children actively investigate through observing, recording, describing, questioning, forming explanations, and ultimately drawing conclusions.

A Inquiry Skills and Practices

1 Identifies questions and problems and suggests solutions during investigations.

Kindergartners' daily experiences frequently prompt them to express "How?" and "Why?" questions or identify problems that lend themselves to further exploration and investigation. For example, they may inspect a bird's nest carefully and wonder aloud about how it was constructed or work with wheeled vehicles, slopes, and differently shaped objects trying to figure out how they move. Kindergartners may also ask questions about phenomena they have observed over a longer period of time like growth in plants, the effects of pollution on the immediate environment, or seasonal changes. Examples include:

- recording the questions and problems they identify for ongoing investigation and follow-up;
- asking, "How much sun does the plant need to grow;"

- asking, "How do colors change when they're mixed;"
- sharing ideas for investigating how the class can figure out the hamster's favorite food, or how to make enough space for a collection of pinecones;
- experimenting with a voice recognition feature, like Google Voice Search™ or Siri® (Apple's "intelligent" reference assistant);
- watching a live video of a bird's nest and then asking what it used to make the nest.

2 Carries out simple investigations and collects and records data.

Kindergartners are very intrigued with tools that extend the power of their senses like hand lenses, balance scales, rulers, and tablets. They enjoy the challenge of sorting and organizing objects, making comparisons, looking for patterns in nature, finding similarities and differences, and are becoming more precise in collecting and reporting data from their observations. Examples include:

- using all appropriate senses intentionally when examining a shell, saying, "I wonder if it has a smell;"
- participating in a multistep investigation (e.g., how shadows change throughout the day or what types of birds will visit the hanging feeders versus the ground feeders);
- collecting and recording data using chalk and measuring tape to outline and measure shadows;
- using checklists, simple graphs, and Venn diagrams for organizing and displaying data from an investigation of their study of shadows;
- checking indoor and outdoor temperatures with a thermometer;
- using an iPad® to count or tally data.

3 Formulates ideas, solutions, and explanations based on evidence from their own experiences and observations and those of others.

Kindergartners' ideas about the world and how it works become increasingly sophisticated and

complex as they gain more experience, and collect more evidence, on which to base them. Their ideas, conclusions, explanations, and predictions reflect an emerging ability to think scientifically that will continue to develop throughout their elementary years and beyond even if these ideas are not “scientifically correct” (e.g., concluding that hats, coats, and sweaters generate heat). Examples include:

- identifying and describing the evidence that supports their “claims” by noting, “Worms are baby snakes; they’re smaller and slither around like snakes;”
- listening and responding to the ideas, observations, and reasoning of their peers by making comments or asking questions;
- telling classmates that some birds have very thick feathers and that’s why they don’t need to fly south in the winter;
- changing previously held ideas to include new evidence;
- revising their initial prediction that a sponge will sink because it is bigger than a floating plastic boat, saying, “It isn’t size. The other sponge sank and it is smaller than the plastic boat.”

4 Communicates science information and ideas in a variety of ways and engages in argument from evidence.

Kindergartners communicate their scientific observations, experiences, and ideas by talking about and recording them in different ways, including writing. They can support their claims with evidence and respond to questions about their ideas. Kindergartners may use books and other resources (e.g., Internet sites) in their investigations that extend and enrich their own observations (e.g., sites that stream video from webcams in a squirrel’s nest or bird’s nest or apps that embed video content from sites like YouTube™). Examples include:

- providing evidence for their claim that heavier balls knock over heavier objects by describing their own investigation and observations;
- answering questions about which balls and other objects they used in an experiment;
- recording data from investigations on a science activity sheet or in a science notebook, and using this information during science discussions;
- using basic science and engineering terms like “observe,” “investigate,” “experiment,” and “predict;”

- experimenting with face-morphing software to try out different digital effects, in person or on a friend (see Photo Booth® by Apple);
- looking at different sizes of sea shells and stating what size animal might have lived inside.

B Physical Science

1 Observes, describes, and compares properties of matter and how they change.

Kindergartners use an increasing variety of objects and materials in their play and science explorations. For example, they may use items with different properties to make representations of their block structures including toothpicks, straws, and/or clay. They can observe and describe an increasing number of properties of objects and materials including size, length, width, shape, weight, color, and composition, and know that the properties of some materials can be changed (e.g., that water can turn to ice and back to water). Kindergartners use technology and engineering as they employ tools to change the properties of an object or material (e.g., egg beaters, whisks, hammers, and appliances) and to measure and describe objects (e.g., hand lenses, balance scales, rulers, and thermometers). Examples include:

- describing the differences between ice and water;

- exploring absorption as they try a variety of different materials (e.g., paper towel, piece of cotton cloth, netting, wax paper) in shallow dishes of water to see which absorbs more water;
- using a mixer or eggbeater and observing what happens when eggs are beaten;
- differentiating between the properties of an object (e.g., a wooden block is red, square, and small) and the properties of the material it is made out of (e.g., wood is brown, hard, and comes from trees);
- grouping objects according to the material they are made out of (e.g., a chair, a table, a branch, and a block are made of wood); their uses (e.g., a chair and table are for eating and a block is for playing); or whether they are human-made or naturally occurring (e.g., the chair, table, and block are human-made and a twig is naturally occurring).

2 Observes, investigates, and describes force, motion, and stability.

Kindergartners begin to learn about force, motion, and stability by studying what is around them. Their understanding begins with noting how their bodies move over, under, around, and through obstacles. They respond to challenges to the stability of their structures as they build (e.g., trying to remove single blocks without the structure falling down).

As they plan, design, and build structures for specific purposes, address their own building challenges, and identify and describe tools and machines made and used by humans for specific purposes, they demonstrate their beginning understanding of engineering and technology. Examples include:

- investigating different actions that can change the motion of an object (e.g., by making obstacle courses for marbles and balls);
- making predictions about how their structures will move in response to a force (e.g., a ball or fan);
- building airplanes and parachutes using different materials and designs, and testing them to see which one works best;
- using simple remote-controlled vehicles that roll or fly; becoming comfortable with the fine motor skills required to operate machines with remote controls;
- watching how objects of different masses are blown by the wind and then commenting about the fastest and slowest.

3 Investigates, observes, and describes the properties of light, heat, and sound.

Kindergartners enjoy making things, especially when they can use their creations for further exploration. Kindergartners are connected to technology and engineering when they design and make objects for investigat-

ing light and sound like shadow puppets, shadow boxes, tin can telephones, and musical instruments, and when they record sounds. Examples include:

- investigating light using a light source and mirrors;
- categorizing objects and materials as those that allow all, some, or no light to pass through;
- making predictions about the sounds they might hear in different familiar locations, and investigating, identifying, and recording them;
- creating and making challenging sound patterns using their own bodies, objects, sound canisters, or musical instruments (e.g., stomp, stomp, clap, click, clap; stomp, stomp, clap, click, clap);
- investigating sound and vibration by making and using musical instruments like kazoos from cardboard rolls, wax paper, and rubber bands;
- observing, describing, and recording the effects of heat on different liquids and solids in cooking activities.

C Life Science

1 Observes, describes, and compares the characteristics of living things and how they grow, change, and survive.

Kindergartners begin to describe the characteristics of living things that distinguish them from non-living things as they investigate the characteristics of plants and

animals, common to their local area, including themselves. They use tools to enhance their observations (e.g., hand lenses, binoculars, web-based resources) and collect and record data (e.g., science notebooks, drawing and writing utensils, recording devices). Examples include:

- noting relationships between the body parts an insect has (e.g., “Does it have legs?” “Wings?” “How many?”) and how it moves (e.g., “Does it crawl, hop, and/or fly?”);
- drawing a picture of a plant they observed, and identifying and labeling the roots, stem, and leaves, and generating ideas about the function of each part;
- describing how animals, including humans, use their senses to explore the world and get their needs met;
- classifying leaves collected on a nature walk by shape, and explaining that similar leaves came from the same kind of tree;
- observing, describing, and recording growth and development of plants and animals over time (e.g., bean plants, butterflies, snails);
- taking digital photos (or video) of plants, animals, or insects.

2 Investigates how living things depend on and interact with the environment.

Five-year-olds can describe the needs of some living things and how those needs are met in the environment. Kindergartners are increasingly able to observe animals in the outdoor environment, including animals such as birds and squirrels that require the observer to stay quiet and hidden. They use technology and engineering as they assemble temporary animal homes and bird feeders, compare human-made structures and structures made by other animals, and use web-based resources to extend their observations. Examples include:

- distinguishing between needs and wants of living things (e.g., they themselves need food and shelter, but want books and TV);
- using evidence from their explorations to describe some characteristics unique to living things (e.g., living things eat, grow, and change);
- investigating a small area outdoors and making inferences about how the living things they observe meet their needs for food, water, and shelter;
- planning and implementing simple experiments to find out the needs of different plants by varying the amount of sun and water they receive, recording growth over time, and drawing conclusions based on evidence;

- capturing sounds and images on a tablet over time, to show the effects of light, water and nutrients on living things.

3 Explores variation and diversity of living things.

Kindergartners’ understanding of variation and diversity begins with their understanding of themselves. They are members of a family that shares many characteristics, but they can also describe ways in which they are unique. Children will benefit from having teachers with an awareness and appreciation of the different types of families their students come from as they explore variation (similarities and differences among living things of the same type) and diversity (similarities and differences among living things of different types). Five-year-olds can extend their observations of variation and diversity using a variety of forms of information technology. Examples include:

- creating and sharing a book about their families, using drawings to illustrate ways that the members of their family are similar and different;
- identifying the offspring of animals they have observed, noting similarities and differences between offspring and their parents, and beginning to learn vocabulary to name them (e.g., “colt” rather than “baby horse”);

- investigating and comparing the numbers and types of living things they find in two different spaces (e.g., in the grass and on the pavement);
- comparing and contrasting two plants of the same type and two plants of different types, and how the plants of the same type differ from one another and how plants of different types are similar;
- comparing characteristics in animals of the same type and generating ideas about how these differences help the animal survive in its environment (e.g., “Why is it good that ducks have big webbed feet and robins have little feet?”).

D Earth Science

1 Observes and describes phenomena related to the sun, moon, and stars.

Kindergartners are fascinated by the ideas of space and space travel, and they may enjoy integrating space exploration into their play by pretending to build spaceships and be astronauts. It is important to remember how much they also benefit from making and recording their own direct observations of the sky. Their observations can be enhanced by using binoculars, telescopes, and other tools of space exploration. Examples include:

- observing and describing the relative position of the sun at different times during the day (e.g., up high in the sky, down low in the sky, on one side or the other), and noticing how its position appears to change as the day progresses;
- using a simple telescope to observe the sky and telling another child about what they see;
- identifying and describing, in words and pictures, the differences between day and night, and typical daytime and evening activities;
- watching the sky on a windy day and wondering aloud what makes the clouds move in the sky;
- describing and drawing the different shapes the moon appears to be on different nights; listening to and discussing stories about the moon, stars, and nighttime phenomena.

2 Observes and describes the environment and demonstrates beginning understanding of conservation of resources.

Five-year-olds can describe the properties of rocks, soil, air, and water, the use of these resources, and the importance of conserving them. They use tools to collect and observe (e.g., trowels, hand lenses) these natural resources and use materials for representing their observations and making simple maps. Examples include:

- making a rock display and classifying rocks according to surface variations like the presence of streaks and/or sparkles;
- comparing plants that live and grow in sandy areas to those that grow in other types of soil;
- exploring a local water resource like a pond or stream, and observing and describing the living things that live in and around it;
- noticing threads in the bird’s nest the teacher brought in and asking, “Where did the bird get that?”
- discussing how people use water for drinking, cooking, bathing, and swimming to meet their needs and wants;
- generating ideas to reuse objects such as using cardboard boxes as blocks.

3 Begins to observe and describe weather and seasonal changes and looks for patterns.

Kindergartners are increasingly able to make connections and identify relationships and patterns. Studying the sky over time and recording weather over time (and across different seasons, as applicable) provides 5-year-olds with opportunities to observe and identify nature’s patterns. Examples include:

- making and using tools for measuring weather phenomena (e.g., containers for measuring rainfall and wind socks for estimating wind speed and direction);

IV Scientific Thinking

- observing, describing, and recording daily weather including wind speed and direction, air temperature, precipitation, and the sky and sun's appearance;
- identifying and describing seasonal variations in weather;
- choosing appropriate clothing for the weather (e.g., putting on boots for recess because there is still snow on the playground);
- making predictions based on previously observed weather phenomena (e.g., predicting the sound of thunder after lightning was observed);
- telling the class what the weather was for the previous week by looking at a weekly weather chart.

V Social Studies

This domain includes a broad array of theoretical ideas from anthropology, sociology, history, political science, geography, economics, and psychology. In early childhood, these themes are explored through play, personal interactions, literacy activities, projects, data collection and analysis, and report presentation beginning with the study of self, family, and community. In the primary grades, content areas are broadened to include local and state history, economics, political science, and geography. The exploration of social issues and their underlying theoretical constructs permit young children an opportunity to use meaningful content that helps prepare them as life-long learners.

A People, Past and Present

1 Identifies similarities and differences in people’s characteristics, habits, and living patterns.

Five-year-olds understand who they are by comparing themselves with others. At first, these comparisons focus on physical characteristics and preferences, but soon extend to recognizing similarities and differences within families or cultural groups. They can describe family roles and identify some ways that others’ families differ from or are the same as their own. As they engage in conversations, dramatic play interactions, and comparisons of items they bring to school from home, they begin to see how cultures share similarities and differences. Examples include:

- describing physical similarities and differences (e.g., everyone has hair, but everyone’s hair is not the same color, texture, or length);

- making comparisons between the family structures as they look at several different family photos on display in the classroom (e.g., “There is no daddy in this picture; there are three children in this one but only one in mine.”);
- listening to the language bilingual children speak at home and learning some words to use as they interact with them;
- tasting a snack that a classmate from another culture brings to school and asking if the food is eaten all the time or only on special occasions;
- studying a display of pictures of children’s faces (having received parental permission) taken using a tablet, each printed and placed side-by-side on a bulletin board along with each child’s family history.

2 Demonstrates beginning awareness of community, city, state, and country.

In kindergarten, children begin to see themselves within a larger context. Their growing world includes not just their families and neighborhoods, but extends to state and country. They recognize symbols of their own country and begin to develop an understanding of national holidays. They express their growing knowledge by:

- identifying an American flag while riding the bus to the apple orchard;
- explaining to a classmate why we celebrate George Washington’s birthday;
- developing an awareness of some characteristics of their own region and, after seeing a snowstorm on television, commenting, “We never have snow where we live;”
- describing the White House as the place where the President lives;

- recognizing national figures who have changed our country (e.g., Rosa Parks, Abraham Lincoln);
- making a flag collection by searching for each country online and then taking a digital photo of the flag.

3 Shows beginning understanding of past and present.

Kindergartners learn about chronological time by reflecting on their own and family members' history. They are beginning to understand that people in the past lived differently than people do today. Five-year-olds can use vocabulary related to chronology ("past," "present," "future," "before," "after," "yesterday," "today," "tomorrow"). Examples include:

- drawing and writing in a journal about a memory from preschool;
- explaining that people long ago used horses to travel because they didn't have cars;
- recounting the story of Harriet Tubman, indicating awareness of the past by beginning, "A long time ago...;"
- making a timeline of their first five years of life by sequencing photos of themselves;
- bringing family heirlooms to share with classmates (e.g., a tortilla press or prayer rug);
- telling a personal anecdote about the past in response to hearing a story read aloud.

B Human Interdependence

1 Begins to understand how people rely on others to meet their needs.

Five-year-olds are learning to distinguish between wants and needs and are beginning to realize that making one choice means that you may not be able to do something else (e.g., deciding to take a turn with an app means you will not have time to build with blocks). Personal experience with making trades leads to a beginning awareness of money as a means to purchase goods and services. As their social world expands, children this age begin to understand that all people need food, shelter, and clothing. Examples include:

- wondering aloud about how food gets to the grocery store;
- commenting that the class gerbil needs to eat every day just like people do;
- trading two pretzels for a friend's two crackers at snack time;
- realizing that when they made the choice to stay at the art area to finish their collage, they gave up their chance to play a "Lotto" game;
- role-playing a customer buying shoes in the classroom "shoe store," including looking at shoes, trying them on, making a decision, and exchanging money for the shoes;

- sharing a toy because they sympathize with another who wants it.

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

Five-year-olds have a beginning understanding of why people have jobs, can identify different types of jobs, and describe some of the tools used to perform those jobs. Examples include:

- taking on the role of a salesperson or mail carrier, involving others in this play, and asking questions about the way these jobs are performed and what tools each uses;
- pretending to be a police officer, discussing why police officers are necessary, and exploring their many roles;
- contributing to a mural about the people in the school and the jobs they do;
- pretending to be their own parent going to work and acting out what they do at their job;
- expressing through the arts (e.g., dramatic play, music, painting, blocks) the role of a community worker, including descriptions of the tools needed to do the job;
- choosing a job, and interviewing a person who has that job, using a mobile device to capture the video.

3 Shows awareness of how technology affects everyday life.

Five-year-olds are aware of the technology that is so much a part of the world around them (e.g., TVs, tablets, telephones, vehicles, video games, DVD players, smart phones, microwave ovens, and laptops). They can discuss ways in which technology helps people accomplish specific tasks and, with teacher guidance, consider what it must have been like to live without technology in an earlier time. Examples include:

- visiting a bread factory and, upon returning to the classroom, recreating the machines they observed using LEGO blocks and unit blocks;
- using a tablet to read a story or play a math or reading game;
- preparing a digital slide show of a family celebration from a set of stored digital images;
- using a digital camera to take pictures or a video of a class trip;
- using tablets and computers for writing stories;
- using a search engine to find facts, videos, or images.

C Citizenship and Government

1 Demonstrates awareness of the reasons for rules.

Kindergartners’ understanding of the reasons for rules comes about as they discuss problems in the classroom and school and partici-

pate in making reasonable rules that directly involve them. They demonstrate their understanding of rules by showing such positive citizenship behaviors as sharing, taking turns, following rules, and taking responsibility for classroom jobs. Examples include:

- explaining classroom rules to a new classmate;
- discussing the rules and expectations for going to an all-school assembly;
- contributing to a discussion about why rules are needed and what would happen if no one followed the rules;
- listening to a traffic safety children’s book, and then comparing the signs and symbols in the book with those in their community and explaining the reasons for crossing guards and police officers;
- exploring various family rules (“What are some rules in each family?” “How many families have rules that are like rules in other families?”).

2 Shows beginning understanding of what it means to be a leader.

By age 5, children show beginning understanding of leadership in their classrooms and schools. They can understand the important roles that the teacher and principal play in making things run in an orderly way. Five-year-olds can participate in assigning leadership roles for various class activities. Their understanding of

leadership expands as they identify the leaders in their community (e.g., the police chief, the mayor) and the functions they perform. Examples include:

- listening to a story about fire fighters and describing the roles of team members, including the captain and the chief;
- talking with peers about the job of a person “in charge;”
- taking responsibility for classroom jobs such as line leader, plant waterer, or name tag collector;
- initiating a discussion about how to solve a classroom resource issue, such as not enough purple markers to illustrate the class story about grapes;
- making a book about the things done by a particular leader in the school or the community.

D People and Where They Live

1 Expresses beginning geographic thinking.

For 5-year-olds, geographic thinking begins with deepening their understanding of the concept of location. They can move their bodies in specific directions, describe the relative locations of objects, and talk about location using appropriate vocabulary such as “near,” “far,” “over,” “under,” and “next to.” Learning that real places can be represented symbolically occurs as children make schematic drawings and maps of real places. Examples include:

- making a map of a familiar street on chart paper, or using software on a tablet and positioning homes and stores in the proper order;
- following a picture map to the treasure the teacher has hidden on the playground;
- playing a game in which they move from place to place according to specific directions;
- talking about how long it took to drive to a grandparent's house in another state;
- locating objects in the room by drawing a map of the classroom that shows the windows, tables, and centers;
- using Google Maps™ or Google Earth™ to investigate the neighborhoods of school and home, and identifying buildings, streets, and other geographical features.

2 Shows beginning awareness of the ways the environment affects how people live.

Five-year-olds are developing an awareness of their local environment. They can describe some physical characteristics (e.g., bodies of water, mountains, weather) and some of the human characteristics of their communities (e.g., types of shelter, clothing, food, jobs). With repeated exposure to different places, they begin to notice the physical and human characteristics of other places. Examples include:

- commenting that the child in the story about Alaska needed a very warm winter coat;
- painting pictures of what they see out of the classroom window;
- making a timeline of changes in their community (e.g., trees blooming, green grass, leaves falling, snow on the ground);
- comparing two stories set in two different places and drawing the land features of the place they like best and describing their reasons;
- graphing the mean weekly temperature over the school year and noticing a pattern;
- describing their favorite season and then drawing a picture showing why it is their favorite using an iPad.

3 Begins to recognize ways people affect their environment.

With teacher guidance and support, 5-year-olds recognize how people can take care of or damage the world around them. Examples include:

- recycling lunch containers and other paper products used during the day, and discussing what happens when these waste products are thrown in the trash bins;
- commenting that the litter in the river will be bad for the fish;
- reminding a classmate to make sure the faucet is turned off so that they don't waste water;

- drawing a picture of the dangers of forest fires after a discussion during fire prevention week;
- getting a sponge to clean off the art table after drawing with markers because it's important to keep the classroom clean;
- finding videos and other online resources that illustrate what happens at a recycling plant.

VI The Arts

This domain focuses on children's engagement with the arts (dance, dramatics, music, and visual arts), both actively and receptively. Two ideas are emphasized: how children use the arts to express, represent, and integrate their experiences; and how children develop an understanding and appreciation for the arts. Opportunities to use a variety of materials, guidance in the use of those materials, and communication with adults and peers about process and product enable children to demonstrate what they know, expand their thinking, and make connections among the arts, culture, history, and other domains.

A Expression and Representation

1 Participates in group music experiences.

Five-year-olds are able to master simple instruments (e.g., rhythm sticks, tambourines, drums). They are interested in the sounds that more complicated instruments make and in how they are played (e.g., a piano or guitar). They enjoy singing, making up silly and rhyming verses, imitating rhythmic patterns, learning finger plays, and using music to tell stories and express feelings. Often, they will make up songs to accompany other activities (e.g., when playing on the swings or putting on their clothes to go outside). Examples of music participation include:

- singing songs from different cultures;
- exploring musical instruments in the classroom and using common objects to produce a variety of sounds;

- composing their own songs and singing as they perform classroom routines, wait in line, or use the swings;
- using musical instruments to create a mood to go along with a puppet show or a creative dance;
- using a microphone as a prop to sing along with a musical background rhythm;
- hitting a tambourine on their leg during music time.

2 Participates in creative movement, dance, and drama.

Five-year-olds are very active and need opportunities to move and stretch their bodies. They are in constant motion, wiggling, changing positions, and sitting in a variety of ways. They can harness this energy into creative and descriptive expressions of feelings and experiences through movement, dance, and drama. Examples include:

- participating in a group movement experience and suggesting ways to move and animals to imitate;

- planning or joining with others in the dramatization of a book or the retelling of a class event;
- pantomiming the actions of a leaf falling, a ball bouncing, or a bird flying;
- dramatizing a story they created or creating a drama about something they studied or visited (e.g., a circus or a trip to the zoo);
- creating a movement that responds to the beat of a song or interpreting the mood conveyed by a classical composition;
- dancing to music by hopping up and down in response to the rhythm.

3 Uses a variety of art materials to explore and express ideas and emotions.

Through extensive exploration with art materials, 5-year-olds become confident using a variety of media, and enhance their sense of mastery and creativity. Although they are primarily interested in the creative process, they are beginning to become more critical of the prod-

ucts they create. In addition to being able to express their feelings and ideas verbally, they can also express them through their artwork. Examples of exploration and expression with art materials include:

- trying a variety of expressive media (e.g., markers, brush and finger painting, printing, collage, Play-Doh®, clay);
- making a book with their own pictures to illustrate a story they dictated;
- constructing a sculpture from wood pieces, fabric, and foil;
- using mirrors and photographs to study faces and create self-portraits or drawings of family and friends;
- using models or photographs for nature studies of insects, birds, etc., to try to make their own careful representations;
- using apps that include step-by-step drawing tutorials.

B Understanding and Appreciation

1 Responds to artistic creations or events.

Many children express their interest in the arts as observers rather than producers. Five-year-olds are able to appreciate the artistic creations of others, the skill of a dancer, or someone's ability to play a musical instrument. They are excited when a picture or sculpture reminds them of people, objects, or events in their own lives. Some ways

that children express this appreciation include:

- listening to music during choice time, indicating involvement by body language and facial expression;
- commenting to a friend, "I like how you used so many colors to make your picture look stormy;"
- identifying the painting they liked best in the art museum and telling why;
- listening with attention and pleasure to an artist (e.g., a poet, writer, musician, or magician);
- recognizing and identifying favorite book illustrators and their techniques (e.g., Leo Lionni's torn paper, Romare Bearden's collages) and appreciating the skill, humor, or beauty of the drawings;
- expressing pleasure with a classmates' performance by signing, "I liked it."

VII Physical Development, Health, and Safety

The emphasis in this domain is on physical development, health, and safety as integral parts of a child's well being and educational growth. The functional components address gross motor skills, fine motor skills, and personal health, nutrition, and safety. In gross motor, the focus is on a child's ability to move in ways that demonstrate control, balance, and coordination. Fine motor skills include strength, coordination, and eye–hand skills. These skills are important in building the foundation upon which self-care skills, handwriting, and artistic expression mature. The third component addresses a child's growing ability to understand his/her personal health, including self-care, nutrition, and physical safety.

A Gross Motor Development

1 Moves with balance and control.

Five-year-olds are very active, seeming to be in constant motion. They can move with greater control and speed. They can run smoothly, hop many times on each foot, and climb up and down stairs using alternating feet. During table activities, they can easily change from sitting to standing and often prefer to stand. Some ways that children show their growing balance and control include:

- moving through an obstacle course forward and sideways using a variety of movements with ease;
- stopping and starting movements in response to a signal;
- maintaining balance while bending, twisting, or stretching;
- walking up or down stairs while holding an object in one or both hands;

- carrying a glass of water or juice across the room without spilling it;
- moving confidently around the room, in the halls, and when going up and down stairs.

2 Coordinates increasingly complex movement patterns to perform tasks.

Five-year-olds combine separate skills to accomplish new feats and meet new challenges. They are eager to experiment with how their bodies move. Ways they coordinate increasingly complex movements include:

- bouncing a ball and catching it;
- kicking a stationary ball using a smooth running step;
- sweeping with a broom and using a dust pan;
- skipping smoothly, alternating feet;
- walking, galloping, jumping, and running in rhythm to simple tunes and music patterns;
- walking with a walker throughout the classroom with ease.

B Fine Motor Development

1 Uses increased strength and control to perform tasks.

Five-year-olds are becoming adept at using the small muscles of their hands and fingers to accomplish more difficult tasks. Over time, their hand strength and control improves, although they may complain that their hands become tired. Since some children are more skillful than others, it is important to look for growth rather than specific accomplishments at this age of transition. Examples of growing strength and control include:

- using a stapler to join several pages;
- using a paper punch without help;
- making complex forms and designs stretching rubber bands across geoboards;
- removing and replacing lids and caps of containers;
- tearing a piece of tape off a roll of tape without letting the tape get stuck to itself.

2 Uses eye–hand coordination to perform tasks effectively.

Five-year-olds are continuing to improve their eye–hand coordination and accomplishing tasks with greater precision. They enjoy playing with manipulatives and blocks, and sometimes work with a finished product in mind. Five-year-olds demonstrate eye–hand coordination by:

- putting together 18- to 25-piece puzzles using picture and shape clues;
- dressing in a variety of costumes in the dramatic play area (buttoning shirts, zipping jackets);
- cutting fabric into shapes to use for collage;
- using tape, stapler, and glue to create 3-D objects, such as a house or an airplane;
- using scissors to cut simple shapes and pictures, only occasionally straying off the line;
- constructing planned projects out of LEGO blocks, Bristle Blocks®, table blocks, and Tinker Toys®.

3 Uses writing and drawing tools with some control.

At age 5, children’s increased strength and coordination allow them to use a variety of writing, drawing, and art tools with greater control. As their pencil grasp becomes established, they can use drawing and writing tools to create letters, words, symbols, and other representations. At this age, children demonstrate their

control of writing tools by:

- drawing pictures, designs, and letters with pencils, pens, crayons, or markers;
- forming letters and practicing writing their names and other words in a journal;
- writing their first names legibly without help;
- using a pencil with their preferred hand while holding the paper in position with the other hand;
- painting with different sized brushes to create shapes, designs, and figures;
- drawing a picture using a stylus and a tablet.

C Self-Care, Health, and Safety**1 Performs self-care tasks independently.**

Kindergartners are quite competent about taking care of their physical needs and often volunteer to help classmates who are struggling with buttons and laces. They take pride in their skills and will often practice zipping jackets and tying bows just for the pleasure of doing it. They demonstrate self-care competence by:

- keeping track of their personal belongings;
- cleaning up art projects or other messy activities with some skill;
- putting on their outdoor clothing with little assistance;
- remembering to wash their hands before eating;

- adding ideas to the chart of healthy food choices (e.g., an apple, nuts, celery);
- discussing the roles of dentists, doctors, and nurses in keeping people healthy.

2 Shows beginning understanding of and follows safety rules.

Five-year-olds are interested in safety issues, especially when these relate to their own experiences. Although they still need reminders to follow safety rules, they are beginning to understand the rationale for these rules. Examples include:

- telling a friend not to run in front of the school bus;
- remembering to put on their seat belts when in a vehicle;
- discussing safety rules when on a class trip (e.g., waiting behind a leader before crossing a street);
- describing why fire drills are important;
- discussing traffic safety rules as they engage in dramatic play or build roads and cities out of blocks;
- identifying situations in which feelings of fear arise.