



*Grade Level  
Expectations*

Kindergarten – Grade 2



# Table of Contents

Reading .....	7
Reading Glossary .....	19
Writing .....	21
Writing Glossary .....	28
Math .....	29



# Introduction to PSGLEs for Kindergarten-Grade 2

The Alaska Performance Standards/Grade Level Expectations (PSGLEs) are aligned to the Alaska Content Standards. PSGLEs are statements that define what all students should know and be able to do at the end of a given grade level. Each Performance Standard/Grade Level Expectation is meant to further define a content standard. There is a progression of specificity; the content standards represent broad statements, while PSGLEs are more specific.

The PSGLEs for Kindergarten-Grade 2 articulate the skills students need to learn in those grades in order to be able to demonstrate proficiency in grade 3 on the state assessments for reading, writing, and math.

PSGLEs for Kindergarten-Grade 2 were developed as part of a project funded by a U.S. Department of Education General Supervision Enhancement Grant. Part of the purpose of the grant was to develop outcomes and indicators for young children from birth through age five. In the state of Alaska, the grant also addressed the fact that no grade level standards existed for kindergarten and grades 1 and 2. The Alaska Performance Standards/Grade Level Expectations were developed for grades 3 through 10 reading, writing, and mathematics in fulfillment of the No Child Left Behind Act of 2001 (NCLB) requirements.

The PSGLEs are intended to be the basis upon which school districts refine, align, and develop curricula. (PSGLES for grades 3-10 are also the road map for developing assessment items.) The content described by the PSGLEs does not represent the entire curriculum for a grade or course, nor does it represent the final word on the content that is presented. The PSGLEs indicate core content to be mastered by the end of a given grade. Content can be added and enriched as appropriate for a district program, school, or student. It may be necessary to introduce some skills at an earlier grade in order for students to achieve mastery at a given level. Similarly, skills will need to be maintained after mastery has occurred at a given grade level.

The PSGLEs were developed with the following goals in mind:

- to articulate learning in grades kindergarten-grade 2 (reading, writing, mathematics);
- to be appropriate for the developmental or grade level of students;
- to move from the concrete to the abstract;
- to attend to prerequisite skills and understandings; and
- to be specific, but not so specific as to be too small in scope compared with other PSGLEs for a particular content area.

The PSGLEs were developed with an effort to avoid including statements of curricular activities, instructional strategies, or value-laden concepts and understandings.



# Reading Performance Standards (Grade Level Expectations) Kindergarten-Grade Two

Each PSGLE includes a bolded statement called the "stem." Each stem is the same or similar across the grades for a given PSGLE and is meant to communicate the main curriculum and instructional focus of the PSGLE across the grades.

The first row of each table includes a sentence that summarizes the performance standards (the performance standards state what students should know and be able to do at ages 5-7, 8-10, 11-14, and 15-18). The second row includes the complete performance standards for ages 5-7.

PSGLEs repeated with no changes across grade levels are marked with asterisks. This indicates the PSGLE assumes a variety of text and increasing complexity to indicate the growth in the PSGLE.

## The student comprehends literal or inferred meaning from text.

- R1.2** a. Comprehend literal meaning from text.  
b. Use a variety of strategies to support comprehension; including predicting, questioning, rereading, and monitoring own comprehension. E.B.1

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p><b>[K] 1.2.1</b> Answering who, where, and what questions after listening to a sentence, paragraph or story</p> <p><b>[K] 1.2.2</b> Predicting and confirming outcomes when listening to a story</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p><b>[1] 1.2.1</b> Answering who, what, where and when questions after listening to or reading a story</p> <p><b>[1] 1.2.2</b> Generating questions to clarify meaning of the text</p> <p><b>[1] 1.2.3</b> Making and verifying predictions based on information from the story</p> <p><b>[1] 1.2.4</b> Drawing conclusions about stories or information while listening or reading (e.g., comparing and contrasting)</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p><b>[2] 1.2.1</b> Answering questions about information explicitly stated in text.</p> <p><b>[2] 1.2.2</b> Self-monitoring comprehension by making predictions or formulating questions while reading (e.g., why is the wolf dressed in grandmother's clothing, why are mother bears dangerous, what will happen next), or rereading (e.g., for clarification, confirmation, correction)</p> <p><b>[2] 1.2.3</b> Making simple inferences</p> <p><b>[2] 1.2.4</b> Drawing conclusions about stories and/or based on information presented in the text (e.g., cause and effect).</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p><b>[3] 1.2.1</b> Locating information explicitly stated in narrative and informational text to answer literal-comprehension questions</p> <p><b>[3] 1.2.2</b> Self-monitoring comprehension by making predictions or formulating questions while reading (e.g., why is the wolf dressed in grandmother's clothing, why are mother bears dangerous, what will happen next), or rereading (e.g., for clarification, confirmation, correction) (L)</p> <p><b>[3] 1.2.3.</b> Making simple inferences (e.g., predicts logical outcomes)</p> <p><b>[3] 1.2.4</b> Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)</p>

The number or letter in brackets indicates the grade level.

The numbering indicates the performance standard and the Grade Level Expectation number, so PSGLE **[1] 1.2.1** is Performance Standard 1.2, and the first PSGLE for that performance standard for grade 1.

Note: Grade 3 PSGLEs are included in this document to show the progression from kindergarten to grade 3.

## Reading Performance Standards (Grade Level Expectations) Grades K-2

### The student uses strategies to decode or comprehend meaning of words in text.

- R1.1** a. Distinguish, reproduce, and manipulate the sounds in words;  
 b. Use a combination of the following to read and comprehend text: knowledge of phonics, alphabet, and alphabetic principle, e.g., recognition of letter shapes, letter names, letter/sound relationships, initial/final consonants, vowels, letter patterns; pictures and visual cues; sight recognition of high frequency vocabulary words; word structure, e.g., root words, prefixes, suffixes, rhyming words; language structure, e.g., word order, grammar; meaning structure, e.g., prior knowledge and context; text structure, e.g., read left to right. E.B.1

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student uses strategies to decode or comprehend meaning of words in text by</b></p> <p><b>[K] 1.1.1</b> Given spoken words or sounds (phonological awareness):</p> <ul style="list-style-type: none"> <li>• identifying whether words are the same or different;</li> <li>• identifying whether words rhyme or not;</li> <li>• producing words that rhyme;</li> <li>• orally blending syllables or onset-rimes;</li> <li>• orally blending separate phonemes;</li> <li>• identifying the first sound in a 1-syllable word;</li> <li>• identifying different speech sounds;</li> <li>• segmenting individual sounds in words with support</li> </ul> <p><b>[K] 1.1.2</b> Identifying all letters by name and most common sound; orally reading some high frequency sight words</p> <p><b>[K] 1.1.3</b> Naming pictures of common objects; environmental print (e.g., stop, exit), using words to describe location, size, color, and shape; using names and labels of basic objects; identifying and sorting pictures into categories (e.g., vehicles, foods, colors)</p> <p><b>[K] 1.1.4</b> Listening to and using new vocabulary in context</p> <p><b>[K] 1.1.5</b> Demonstrating understanding of concepts of print including</p> <ul style="list-style-type: none"> <li>• holding book right side up;</li> <li>• reading front to back, top to bottom of page, left to right of page, left before right page;</li> <li>• one-to-one word correspondence;</li> <li>• meaning of the concept of first/last and beginning/end</li> </ul>	<p><b>The student uses strategies to decode or comprehend meaning of words in text by</b></p> <p><b>[1] 1.1.1</b> Given spoken words or sounds:</p> <ul style="list-style-type: none"> <li>• identifying initial, middle, and final sound in 1-syllable words;</li> <li>• blending 3-4 phonemes into a whole word;</li> <li>• segmenting 3 and 4 phonemes in 1-syllable words;</li> <li>• distinguishing, reproducing, and manipulating sounds for common letter combinations (i.e., word families, consonant blends, and digraphs)</li> </ul> <p><b>[1] 1.1.2</b> Reading regularly spelled one syllable words using decoding skills, including knowledge of letter-sound relationships (phonics), digraphs, long and short vowel patterns</p> <p><b>[1] 1.1.3</b> Reading high frequency words</p> <p><b>[1] 1.1.4</b> Obtaining information using text features (e.g., titles, illustrations, table of contents, speech bubbles)</p> <p><b>[1] 1.1.5</b> Identifying the meaning of new vocabulary; using new vocabulary in context</p> <p><b>[1] 1.1.6</b> Self-monitoring and self-correcting while reading (e.g., recognizing when there is a mismatch and using other strategies to correct)</p> <p><b>[1] 1.1.7</b> Demonstrating understanding of concepts of print including</p> <ul style="list-style-type: none"> <li>• one-to-one matching;</li> <li>• return sweep when reading;</li> <li>• meaning of ending punctuation;</li> <li>• capital and lower case letters (e.g., sentences and names begin with capitals)</li> </ul>	<p><b>The student uses strategies to decode or comprehend meaning of words in text by</b></p> <p><b>[2] 1.1.1</b> Reading regularly spelled two syllable words using decoding skills, including knowledge of letter-sound relationships (phonics), diphthongs, digraphs, base or root words, and common prefixes and suffixes</p> <p><b>[2] 1.1.2</b> Orally reading high frequency words, compound words, contractions, possessives, and inflectional endings</p> <p><b>[2] 1.1.3</b> Obtaining information using text features including illustrations, captions, and titles</p> <p><b>[2] 1.1.4</b> Identifying the meaning of new vocabulary; using new vocabulary in correct context; making inferences about the meaning of a word based on its use in a sentence</p> <p><b>[2] 1.1.5</b> Self-monitoring and self-correcting while reading (e.g., adjusting reading pace, rereading to check for meaning, rereading a word and checking that the letter sounds match the word read)</p>	<p><b>The student uses strategies to decode or comprehend meaning of words in text by</b></p> <p><b>[3] 1.1.1</b> Reading regularly spelled, multi-syllabic (three syllables) words using decoding skills, including knowledge of letter-sound relationships (phonics), word structure (root or base word, prefixes, suffixes, rhyming words) and language structure (word order, grammar)</p> <p><b>[3] 1.1.2</b> Reading orally high-frequency words and abbreviations of proper nouns such as Dr., Mr., Mrs., Ms. (L)</p> <p><b>[3] 1.1.3</b> Obtaining information using text features including pictures (illustrations for text) and visual cues (e.g., bolded or italicized text, chapter titles)</p> <p><b>[3] 1.1.4</b> Identifying words by using context clues (e.g., “canoe” in a story about fishing)</p> <p><b>[3] 1.1.5</b> Self-monitoring and self-correcting while reading (e.g., sounding words out, adjusting reading pace) (L)</p>

## Reading Performance Standards (Grade Level Expectations) Grades K-2

### The student comprehends literal or inferred meaning from text.

- R1.2** a. Comprehend literal meaning from text.  
b. Use a variety of strategies to support comprehension; including predicting, questioning, rereading, and monitoring own comprehension. E.B.1

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p>[K] 1.2.1 Answering who, where, and what questions after listening to a sentence, paragraph, or story</p> <p>[K] 1.2.2 Predicting and confirming outcomes when listening to a story</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p>[1] 1.2.1 Answering who, what, where, and when questions after listening to or reading a story</p> <p>[1] 1.2.2 Generating questions to clarify meaning of the text</p> <p>[1] 1.2.3 Making and verifying predictions based on information from the story</p> <p>[1] 1.2.4 Drawing conclusions about stories or information while listening or reading (e.g., comparing and contrasting)</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p>[2] 1.2.1 Answering questions about information explicitly stated in text</p> <p>[2] 1.2.2 Self-monitoring comprehension by making predictions or formulating questions while reading (e.g., why is the wolf dressed in grandmother’s clothing, why are mother bears dangerous, what will happen next), or rereading (e.g., for clarification, confirmation, correction)</p> <p>[2] 1.2.3 Making simple inferences</p> <p>[2] 1.2.4 Drawing conclusions about stories and/or based on information presented in the text (e.g., cause and effect)</p>	<p><b>The student comprehends literal or inferred meaning from text by</b></p> <p>[3] 1.2.1 Locating information explicitly stated in narrative and informational text to answer literal-comprehension questions</p> <p>[3] 1.2.2 Self-monitoring comprehension by making predictions or formulating questions while reading (e.g., why is the wolf dressed in grandmother’s clothing, why are mother bears dangerous, what will happen next), or rereading (e.g., for clarification, confirmation, correction) (L)</p> <p>[3] 1.2.3 Making simple inferences (e.g., predicts logical outcomes)</p> <p>[3] 1.2.4 Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student reads text aloud.**

**R1.3** Read texts aloud with expression, demonstrating knowledge of punctuation and other conventions of print. E.B.1

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student reads text aloud by</b></p> <p><b>[K] 1.3.1</b> Participating in choral speaking and reciting short poems, rhymes, songs, or stories with repeated patterns</p>	<p><b>The student reads text aloud by</b></p> <p><b>[1] 1.3.1</b> Reading orally with rhythm, flow, and expression, showing understanding of punctuation (e.g., period, question mark, exclamation point, quotation mark) and other conventions of print (e.g., bold, all capital letters) at a pace similar to own speech</p>	<p><b>The student reads text aloud by</b></p> <p><b>[2] 1.3.1</b> Reading orally with rhythm, flow, and expression, showing understanding of punctuation (e.g., period, comma, question mark, exclamation point, and quotations) and other conventions of print (e.g., size of print and speech bubbles) at a pace similar to own speech</p>	<p><b>The student reads text aloud by</b></p> <p><b>[3] 1.3.1</b> Reading orally with rhythm, flow and expression, showing understanding of punctuation and other conventions of print (<b>L</b>)</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student restates/summarizes information.**

**R1.4** a. Retell or dramatize a story after reading it. b. Restate information after reading a text. E.B.1

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student restates/summarizes information by</b></p> <p>[K] 1.4.1 Retelling or dramatizing a familiar story (not necessarily in sequence) with or without the use of props</p> <p>[K] 1.4.2 Restating information after listening to text</p>	<p><b>The student restates/summarizes information by</b></p> <p>[1] 1.4.1 Retelling or dramatizing a story after reading it</p> <p>[1] 1.4.2 Restating information after listening to text*</p>	<p><b>The student restates/summarizes information by</b></p> <p>[2] 1.4.1 Retelling or dramatizing a story after reading it*</p> <p>[2] 1.4.2 Restating information after reading text*</p>	<p><b>The student restates/summarizes information by</b></p> <p>[3] 1.4.1 Retelling or dramatizing a story after reading it (L)</p> <p>[3] 1.4.2 Restating information after reading a text or identifying accurate restatements</p>

\*Assumes a variety of text and increasing complexity

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student demonstrates an understanding of main idea.**

**R1.5** Identify the main idea of a passage. E.B.1

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates an understanding of main idea by</b></p> <p>[K] 1.5.1 Identifying the most important idea of a text</p>	<p><b>The student demonstrates an understanding of main idea by</b></p> <p>[1] 1.5.1 Identifying main idea of a text</p>	<p><b>The student demonstrates an understanding of main idea by</b></p> <p>[2] 1.5.1 Identifying and discussing main ideas and supporting details</p>	<p><b>The student demonstrates an understanding of main idea by</b></p> <p>[3] 1.5.1 Identifying the main idea or central concept in various types of texts</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student follows written directions.**

**R1.6** Read and follow simple directions to complete a simple task. E.C.2

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student follows oral and written directions by</b></p> <p>[K] <b>1.6.1</b> Following simple two-step oral directions to complete a task</p> <p>[K] <b>1.6.2</b> Following symbol or icon directions to complete a task</p>	<p><b>The student follows oral and written directions by</b></p> <p>[1] <b>1.6.1</b> Following two-step oral directions to complete a task</p> <p>[1] <b>1.6.2</b> Following symbol, icon, or written directions to complete a task</p>	<p><b>The student follows oral and written directions by</b></p> <p>[2] <b>1.6.1</b> Following multi-step oral directions to complete a task</p> <p>[2] <b>1.6.2</b> Following one- to two-step written directions to complete a task</p>	<p><b>The student follows written directions by</b></p> <p>[3] <b>1.6.1</b> Completing a simple (1-2 step) task by following written directions (L)</p> <p>[3] <b>1.6.2</b> Identifying the sequence of steps in simple directions</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student analyzes content and structure of genres.**

**R1.7** Distinguish between common forms of texts (genres): fiction/nonfiction, prose/poetry, short story/drama. E.B.2

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student analyzes content and structure of genres by</b></p> <p>[K] 1.7.1 Listening to and discussing fiction, non-fiction, and poetry</p> <p>[K] 1.7.2 Identifying use of rhyme in text</p>	<p><b>The student analyzes content and structure of genres by</b></p> <p>[1] 1.7.1 Identifying fiction, non-fiction, and poetry</p> <p>[1] 1.7.2 Identifying use of rhyme in text*</p>	<p><b>The student analyzes content and structure of genres by</b></p> <p>[2] 1.7.1 Distinguishing between fiction and non-fiction, poetry and prose</p> <p>[2] 1.7.2 Identifying use of dialogue or rhyme in text</p>	<p><b>The student analyzes content and structure of genres by</b></p> <p>[3] 1.7.1 Distinguishing between fiction /non-fiction, prose /poetry, short story /drama (L)</p> <p>[3] 1.7.2 Identifying use of dialogue or rhyme, in common forms of text</p>

\*Assumes a variety of text and increasing complexity

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student analyzes literary elements and devices.**

**R1.8** Identify and describe basic plot, main characters, and setting (time and place) in fiction. E.B.2

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student analyzes literary elements and devices by</b></p> <p>[K] <b>1.8.1</b> Identifying the setting (where) and important characters of a story</p>	<p><b>The student analyzes literary elements and devices by</b></p> <p>[1] <b>1.8.1</b> Identifying problem and solution, main characters, and setting (where and when) in fiction</p>	<p><b>The student analyzes literary elements and devices by</b></p> <p>[2] <b>1.8.1</b> Identifying problem and solution, main characters, and setting in fiction</p>	<p><b>The student analyzes literary elements and devices by</b></p> <p>[3] <b>1.8.1</b> Identifying or describing problem and solution, main characters, and setting in fiction</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student analyzes content of text to differentiate fact and opinion.**

**R1.9** Express own opinions about texts. E.D.1

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student analyzes content of text to differentiate fact and opinion by</b></p> <p>[K] <b>1.9.1</b> Expressing own opinion about material read/heard</p>	<p><b>The student analyzes content of text to differentiate fact and opinion by</b></p> <p>[1] <b>1.9.1</b> Expressing own opinion about material read/heard*</p>	<p><b>The student analyzes content of text to differentiate fact and opinion by</b></p> <p>[2] <b>1.9.1</b> Expressing own opinion about material read</p>	<p><b>The student analyzes content of text to differentiate fact and opinion by</b></p> <p>[3] <b>1.9.1</b> Expressing own opinion about material read (L)</p>

\*Assumes a variety of text and increasing complexity

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student connects themes.**

**R1.10** Make connections between a text and personal experiences, experiences of others, or other texts, and locate details in the text to illustrate these connections. E.B.3

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student connects themes by</b></p> <p>[K] <b>1.10.1</b> Making relevant connections between text and personal experiences</p>	<p><b>The student connects themes by</b></p> <p>[1] <b>1.10.1</b> Making relevant connections between text and personal experiences and other texts</p>	<p><b>The student connects themes by</b></p> <p>[2] <b>1.10.1</b> Making relevant connections between text and personal experiences, experiences of other, and other texts</p> <p>[2] <b>1.10.2</b> Locating details in text to illustrate relevant connections between personal experiences, experiences of others, and other texts</p>	<p><b>The student connects themes by</b></p> <p>[3] <b>1.10.1</b> Making connections between a text [and personal experiences (e.g., this reminds me of when I gave my favorite toy away), experiences of others (e.g., sister helps in toy drive), L] or other texts (e.g., the March sisters helped others in need)</p> <p>[3] <b>1.10.2</b> Locating details in text to illustrate relevant connections between [personal experience, experience of others, or L] other texts</p>

**Reading Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student makes connections between cultural influences/events.**

**R1.11** Identify basic cultural influences in texts. E.E.1

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student makes connections between cultural influences/events by</b></p> <p><b>[K] 1.11.1</b> Listening to and discussing stories representing various cultures and traditions (e.g., storytelling, read-alouds, songs)</p>	<p><b>The student makes connections between cultural influences/events by</b></p> <p><b>[1] 1.11.1</b> Recognizing that stories originate in various cultures</p>	<p><b>The student makes connections between cultural influences/events by</b></p> <p><b>[2] 1.11.1</b> Recognizing that stories originate in various cultures*</p>	<p><b>The student makes connections between cultural influences/events by</b></p> <p><b>[3] 1.11.1</b> Identifying cultural influences in texts (e.g., dialects, customs, traditions) (L)</p>

\*Assumes a variety of text and increasing complexity

## Glossary

**Conventions of Print**—Punctuation or other devices (e.g., using all caps, bold, or italics to indicate that certain words should be emphasized) to indicate how text should be read (a pause at a comma, a longer pause for ellipsis).

**Conclusion**—A judgment reached after consideration or deliberation.

**Explicit/Implicit**—Explicit information is directly stated. Implicit information requires more inference. Deductions or conclusions are suggested or implied rather than overtly stated.

**Fiction**—Fiction includes a full range of literary genres including realistic and historical fiction, science fiction, fantasy, and folk literature.

**Inference**—The act of making logical conclusions based on evidence or known facts

**Informational/Nonfiction**—These texts include primary sources, personal narratives and autobiographies, schedules and manuals, as well as synthesized information found in textbooks. Informational texts use format, illustrations, and graphics to support understanding of meaning.

**Reference to Text**—Mentioning or alluding to something in the text without directly quoting the text (For example: Romeo's impulsiveness caused him to be banished.).

**Restate**—To state information again in another way.

**Retell**—To relate a story or to tell it again.

**Support**—Assistance, including modeling or prompting, provided by a teacher or other adults.



# Writing Performance Standards (Grade Level Expectations) Kindergarten-Grade Two

Each PSGLE includes a bolded statement called the “stem.” Each stem is the same or similar across the grades for a given PSGLE and is meant to communicate the main curriculum and instructional focus of the PSGLE across the grades.

The first row of each table includes a sentence that summarizes the performance standards (the performance standards state what students should know and be able to do at ages 5-7, 8-10, 11-14, and 15-18). The second row includes the complete performance standards for ages 5-7.

Note: Grade 3 PSGLEs are included in this draft document to show the progression from kindergarten to grade 3.

<b>The student writes about a topic.</b>			
<b>W1.1</b> a. Write complete sentences with a subject and a predicate. E.A.1 b. Write a paragraph with a topic sentence and supporting details. E.A.2 c. Write short stories or compositions with a beginning, middle, and end. E.A. 4			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<b>The student writes about a topic by</b>  <b>[K] 1.1.1</b> Writing to express personal ideas using drawings, symbols, letters, or words  <b>[K] 1.1.2</b> Dictating or writing words, phrases, or sentences related to a single topic	<b>The student writes about a topic by</b>  <b>[1] 1.1.1</b> Writing a complete sentence with a subject and a predicate  <b>[1] 1.1.2</b> Writing about a single topic using drawings and a minimum of three complete sentences  <b>[1] 1.1.3</b> Identifying and writing the beginning, middle, and end in a piece of writing	<b>The student writes about a topic by</b>  <b>[2] 1.1.1</b> Writing complete sentences with a subject and a predicate  <b>[2] 1.1.2</b> Writing and organizing thoughts into a topic sentence and two supporting sentences  <b>[2] 1.1.3</b> Writing a story or composition with a beginning, middle, and end  <b>[2] 1.1.4</b> Identifying paragraphs in a piece of writing	<b>The student writes about a topic by</b>  <b>[3] 1.1.1</b> Writing complete sentences with a subject and a predicate  <b>[3] 1.1.2</b> Writing a paragraph on a single topic with two or more supporting details  <b>[3] 1.1.3</b> Writing a story or composition with a beginning, middle, and end ( <b>L</b> )

The number or letter in brackets indicates the grade level.

The numbering indicates the performance standard and the Grade Level Expectation number, so PSGLE **[2] 1.1.1** is Performance Standard 1.1, and the first PSGLE for that performance standard for grade 2.

**Writing Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student writes about a topic.**

- W1.1** a. Write complete sentences with a subject and a predicate. E.A.1  
 b. Write a paragraph with a topic sentence and supporting details. E.A.2  
 c. Write short stories or compositions with a beginning, middle, and end. E.A. 4

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student writes about a topic by</b></p> <p>[K] 1.1.1 Writing to express personal ideas using drawings, symbols, letters, or words</p> <p>[K] 1.1.2 Dictating or writing words, phrases, or sentences related to a single topic</p>	<p><b>The student writes about a topic by</b></p> <p>[1] 1.1.1 Writing a complete sentence with a subject and a predicate</p> <p>[1] 1.1.2 Writing about a single topic using drawings and a minimum of three complete sentences</p> <p>[1] 1.1.3 Identifying and writing the beginning, middle, and end in a piece of writing</p>	<p><b>The student writes about a topic by</b></p> <p>[2] 1.1.1 Writing complete sentences with a subject and a predicate</p> <p>[2] 1.1.2 Writing and organizing thoughts into a topic sentence and two supporting sentences</p> <p>[2] 1.1.3 Writing a story or composition with a beginning, middle, and end</p> <p>[2] 1.1.4 Identifying paragraphs in a piece of writing</p>	<p><b>The student writes about a topic by</b></p> <p>[3] 1.1.1 Writing complete sentences with a subject and a predicate</p> <p>[3] 1.1.2 Writing a paragraph on a single topic with two or more supporting details</p> <p>[3] 1.1.3 Writing a story or composition with a beginning, middle, and end (L)</p>

**Writing Performance Standards  
(Grade Level Expectations) Grades K-2**

**Student writes for a variety of purposes and audiences.**

**W1.2** Write for a specific audience, including self, other children, parents, and other adults. E.A.4

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student writes for a variety of purposes and audiences by</b></p> <p>[K] 1.2.1 Writing to express ideas for self and others (e.g., using drawings, symbols, letters, words, sentences)</p>	<p><b>The student writes for a variety of purposes and audiences by</b></p> <p>[1] 1.2.1 Writing thoughts or ideas to communicate with specific audiences (e.g., cards, letters, notes, lists)</p> <p>[1] 1.2.2 Writing a variety of responses to text (e.g., response logs, journals)</p>	<p><b>The student writes for a variety of purposes and audiences by</b></p> <p>[2] 1.2.1 Producing a variety of written forms for specific audiences (e.g., stories, reports, letters, journal entries)</p> <p>[2] 1.2.2 Using expressive language when responding to literature or producing text (e.g., journals, pictures supported by text or poetry)</p>	<p><b>The student writes for a variety of purposes and audiences by</b></p> <p>[3] 1.2.1 Choosing the appropriate organizational structure to match a purpose and audience (e.g., letters and notes, recounts, stories, and poems) (L)</p> <p>[3] 1.2.2 Using expressive language when responding to literature or producing text (e.g., journals, pictures supported by text or poetry) (L)</p>

## Writing Performance Standards (Grade Level Expectations) Grades K-2

### The student writes and edits using conventions of Standard English.

- W1.3** a. Use a variety of simple sentence structures, and basic rules of punctuation and capitalization in written work. E.A.2  
b. Proofread writing for legibility, spelling, capitalization, and punctuation when producing final drafts. E.A.5

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student writes and edits using conventions of Standard English by</b></p> <p><b>[K] 1.3.1</b> Writing first name with an initial capital and lowercase letters</p> <p><b>[K] 1.3.2</b> Writing and correcting formation of upper and lowercase letters</p> <p><b>[K] 1.3.3</b> Demonstrating an understanding of the correspondence between writing and spoken words (e.g., dictation, reading back written work, shared writing)</p> <p><b>[K] 1.3.4</b> Using correct spatial orientation of words on a page (i.e., left to right; top to bottom)</p> <p><b>[K] 1.3.5</b> Correcting mistakes in end punctuation and capitalization with support (e.g., shared and interactive writing)</p> <p><b>[K] 1.3.6</b> Approximating legible handwriting (i.e., correct spacing, letter formation, and pencil grip)</p>	<p><b>The student writes and edits using conventions of Standard English by</b></p> <p><b>[1] 1.3.1</b> Writing first name and last name with initial capitals and lowercase letters</p> <p><b>[1] 1.3.2</b> Writing a variety of simple sentences using capitalization and end punctuation (i.e., statement, question, exclamation)</p> <p><b>[1] 1.3.3</b> Correcting mistakes in spelling with support (e.g., grade-appropriate, high-frequency words)</p> <p><b>[1] 1.3.4</b> Identifying punctuation in written work (e.g., periods, question marks, exclamation marks, commas, quotation marks)</p> <p><b>[1] 1.3.5</b> Correcting mistakes in punctuation at the end of sentences and capitalization (i.e., beginning of sentences and proper nouns) with support</p> <p><b>[1] 1.3.6</b> Producing legible handwriting with correct spacing, letter formation, and pencil grip</p>	<p><b>The student writes and edits using conventions of Standard English by</b></p> <p><b>[2] 1.3.1</b> Writing a variety of complete, simple sentences (i.e., statement, question, exclamation)</p> <p><b>[2] 1.3.2</b> Identifying and/or correcting mistakes in spelling (e.g., grade-appropriate, high-frequency words)</p> <p><b>[2] 1.3.3</b> Using punctuation in written work (e.g., periods, question marks, exclamation marks, commas, quotation marks)</p> <p><b>[2] 1.3.4</b> Identifying and/or correcting mistakes in punctuation at the end of sentences and capitalization (i.e., beginning of sentences and proper nouns)</p> <p><b>[2] 1.3.5</b> Rewriting handwritten work to improve legibility, if necessary, when producing final drafts</p>	<p><b>The student writes and edits using conventions of Standard English by</b></p> <p><b>[3] 1.3.1</b> Writing a variety of complete, simple sentences (i.e., statement, question, exclamation)</p> <p><b>[3] 1.3.2</b> Identifying and/or correcting mistakes in spelling (e.g., grade-appropriate, high-frequency words) (<b>L</b>)</p> <p><b>[3] 1.3.3</b> Identifying and/or correcting mistakes in punctuation at the end of sentences and capitalization (i.e., beginning of sentences and proper nouns)</p> <p><b>[3] 1.3.4</b> Rewriting handwritten work to improve legibility, if necessary, when producing final drafts (<b>L</b>)</p>

**Writing Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student revises writing.**

**W1.4** a. Revise writing for detail and clarity. E.A.5  
b. Provide appropriate feedback to peers about written work. E.A.8

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student revises writing by</b></p> <p><b>[K] 1.4.1</b> Verbally sharing clarifying or added details about pictures and writing with support</p> <p><b>[K] 1.4.2</b> Sharing own writing (e.g., stories, pictures, ideas) and responding appropriately to feedback from others (e.g., “Thank you,” “I like that part, too.”)</p>	<p><b>The student revises writing by</b></p> <p><b>[1] 1.4.1</b> Working with peers or teacher to rearrange and/or add supporting details to improve clarity</p> <p><b>[1] 1.4.2</b> Giving and/or receiving ideas and suggestions about writing and responding appropriately</p>	<p><b>The student revises writing by</b></p> <p><b>[2] 1.4.1</b> Rearranging and/or adding supporting details to improve clarity</p> <p><b>[2] 1.4.2</b> Giving/receiving appropriate feedback about written work</p>	<p><b>The student revises writing by</b></p> <p><b>[3] 1.4.1</b> Rearranging and/or adding supporting details to improve clarity</p> <p><b>[3] 1.4.2</b> Giving/receiving appropriate feedback about written work (L)</p>

**Writing Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student documents sources.**

**W1.5** List titles and authors of books and other materials when used as references in written work. E.D.3

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student documents sources by</b></p> <p>[K] 1.5.1 Identifying sources of oral and written information (e.g., people, movies, books, etc.)</p>	<p><b>The student documents sources by</b></p> <p>[1] 1.5.1 Identifying sources of oral and written information (e.g., people, movies, books, maps, glossary, computer, etc.)</p>	<p><b>The student documents sources by</b></p> <p>[2] 1.5.1 Listing sources or authors and titles of books and other materials when used as references in written work with support</p>	<p><b>The student documents sources by</b></p> <p>[3] 1.5.1 Listing sources or authors and titles of books and other materials when used as references in written work (L)</p>

**Writing Performance Standards  
(Grade Level Expectations) Grades K-2**

**The student uses resources.**

<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
No Grade Level Expectations at this grade level.	No Grade Level Expectations at this grade level.	No Grade Level Expectations at this grade level.	No Grade Level Expectations at this grade level.

## Glossary

**APA**—American Psychological Association Style Manual

**Audience**—Those who read or hear what is written. Many qualities of writing must be appropriate to the audience: voice and tone, language, etc.

**Coherence**—The quality achieved when all the ideas are clearly arranged and connected. The arrangement of ideas, within and among paragraphs, should be organized in such a way that the reader can easily move from one point to another. When all ideas are arranged and connected, a piece of writing has coherence.

**Complex Sentences**—Complex sentences have an independent clause and a dependent clause.

**Conclusion**—The conclusion gives the reader closure; it sums up the essay's points or provides a final viewpoint about the topic.

**Controlling Idea**—This is the main idea/focus that runs throughout the paper.

**Elements of Fiction**--Character, setting, plot, point of view, theme, and various kinds of symbolism and language are the structures and techniques used to create fiction.

**Expository Writing**—Expository writing is meant to inform the reader.

**Expressive Language**—Those areas of language in which the communicator is conveying, rather than receiving, observations, thoughts, and/or feelings.

**Focus**—The specific idea(s) within the topic that the writer is addressing. (For example, if the topic is “winter,” the focus might be: Winter provides many recreational opportunities in Alaska.)

**Format vs. Form**—Form refers to different types of writing (narrative, informational, etc.); format refers to the physical arrangement or presentation of information, such as the specific arrangement of publisher, author, and title when citing sources.

**Functional Writing**—Functional writing communicates and interprets information in a way that makes it useful for a reader.

**Genre**—A category of literary work, which refers to both form (e.g., poetry, drama, novel) and content (science fiction, tragedy).

**Hook/Lead**—An interesting or “catchy” way to begin a piece of writing, intended to motivate the reader to continue. Typically a hook/lead includes such things as: startling statistic, anecdote/scenario, moving from generalization to specific, or quotation/dialogue.

**Images**—Charts, graphs, pictures, etc.

**Informational Writing**—Informational writing conveys meaning or information. Informational writing uses format, illustrations, and graphics to support understanding of meaning.

**Literary Devices**—Techniques used in writing (particularly expressive writing) to create images (e.g., similes, metaphors, alliteration, assonance, personification, onomatopoeia).

**MLA**—Modern Language Association Style Manual

**Multimedia**—The combined use of media, such as video clips, music, lighting, CD-ROMs, and the Internet.

**Narrative Writing**—Writing that tells a story.

**Organizational Structure**—The internal structure of a piece of writing. Organizational structure can be based on comparison-contrast, chronology, point-by-point analysis, or many other patterns. When the organization is strong, the piece begins meaningfully and events proceed logically; information is given at the right times, transitions form strong connections, and the conclusion creates a sense of resolution.

**Plot**—The pattern of events in a narrative or drama.

**Problem and Solution**—The problem is the conflict in a story and the solution is the resolution.

**Procedural Writing**—Procedural writing explains how to complete tasks by providing specific directions and information.

**Recount**—A recount is a personal account of something that happened with an orientation to *who*, *where*, *when*, *what*, *why*. Events are given in time order.

**Support**—Assistance, including modeling or prompting, provided by a teacher or other adults

# Math Performance Standards (Grade Level Expectations) Kindergarten-Grade 2

Each PSGLE includes a bolded statement called the "stem." Each stem is the same or similar across the grades for a given PSGLE and is meant to communicate the main curriculum and instructional focus of the PSGLE across the grades.

The first row of each table includes a heading that refers to the content standard, and the second row includes a heading that refers to the performance standard. (The content standard is a broad statement of what students should know; the performance standards state what students should know and be able to do at ages 5-7, 8-10, 11-14, and 15-18.) The second box includes the complete performance standards for ages 5-7.

The coding indicates the content strand and the PSGLE number, so PSGLE [2] MEA-1 is content strand Measurement, and the first PSGLE for that content strand for grade 2.

## Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement

**Measurement Performance Standards that apply to grades K-3:** **M2.1.1** Compare and order objects by various measurable attributes including calendar, temperature, length, weight, capacity, area, and volume. **M2.1.2** Compare objects to standard and non-standard units to identify objects that are greater than, less than, and equal to, a given unit. **M2.1.3** Choose a unit of measure, estimate the length or weight of objects and then measure to check for reasonableness. **M2.1.4** Tell time to the nearest half hour, distinguishing between morning, afternoon, and evening. **M2.1.5** Identify coins, their value, and the value of given sets of coins.

### Measurable Attributes

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[K] MEA-1</b> making comparisons between objects using concepts of big/little, long/short, large/small, more/less, same (M2.1.1)</p> <p><b>[K] MEA-2</b> identifying coins by name: penny, nickel, dime and quarter (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[1] MEA-1</b> measuring and/or comparing objects using standard and nonstandard units (M2.1.2)</p> <p><b>[1] MEA-2</b> identifying money by its value (e.g., penny, nickel, dime, quarter, dollar) (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[2] MEA-1</b> measuring to the nearest inch or foot (M2.1.3)</p> <p><b>[2] MEA-2</b> comparing and ordering objects by length, weight, area, time, temperature (M2.1.1)</p> <p><b>[2] MEA-3</b> comparing objects to standard and nonstandard units to identify objects that are greater than, less than, and equal to a given unit (M2.1.2)</p> <p><b>[2] MEA-4</b> identifying coins, their value, or the value of a set of coins up to one dollar (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[3] MEA-1</b> [estimating length to the nearest inch or foot L] (M2.1.3)</p> <p><b>[3] MEA-2</b> comparing and ordering objects according to measurable attribute (calendar, length, [temperature, weight, area, or volume L]) (M2.1.1)</p> <p><b>[3] MEA-3</b> identifying or describing objects that are greater than, less than, or equal to a unit of measure (standard or non-standard) (M2.1.2)</p> <p><b>[3] MEA-4</b> selecting an appropriate unit of English, metric, or non-standard measurement to estimate the length, time, weight, or temperature (M2.1.3)</p> <p><b>[3] MEA-5</b> identifying coins, their value, or the value of a set of coins (M2.1.5)</p>

The number or letter in brackets indicates the grade level.

The coding at the end of each PSGLE indicates the performance standard the PSGLE is aligned to.

Note: Grade 3 PSGLEs are included in this draft document to show the progression from kindergarten to grade 3.

## Math Performance Standards (Grade Level Expectations) Grades K-2

### Content Standard A: Mathematical facts, concepts, principles, and theories

#### Numeration: Understand and use numeration

**Numeration Performance Standards that apply to grades K-3:** **M1.1.1** Read, write, order, count, and model one-to-one correspondence with whole numbers to 100. **M1.1.2** Use, model, and identify place value positions of 1's, 10's, and 100's. **M1.1.3** Model and explain the processes of addition and subtraction, describing the relationship between the operations. **M1.1.4** Select and use various representations of ordinal and cardinal numbers. **M1.1.5** Identify, model, and label simple fractions, describing and defining them as equal parts of a whole, a region, or a set. **M1.1.6** Identify, describe, and extend patterns inherent in the number system. Skip count by 2's, 5's, and 10's. Add and subtract by 10. Identify even and odd numbers. **M1.1.7** Demonstrate the commutative and identity properties of addition.

### Understanding Numbers

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates conceptual understanding</b></p> <ul style="list-style-type: none"> <li>• <b>of whole numbers to 20 by</b></li> <li>[K] N-1 demonstrating 1-1 correspondence (M1.1.1)</li> <li>[K] N-2 recognizing and counting whole numbers from 0-20 (M1.1.1)</li> <li>[K] N-3 writing and ordering whole numbers from 0-20 (M1.1.1)</li> <li>[K] N-4 counting whole numbers backwards from 10 to 0 (M1.1.1)</li> <li>[K] N-5 identifying ordinal position, first to the tenth (M1.1.4)</li> <li>• <b>of simple fractions</b></li> <li>[K] N-6 dividing an even numbered set of concrete objects (up to 20) into halves (M1.1.5)</li> <li>[K] N-7 identifying halves (M1.1.5)</li> <li>[K] N-8 identifying full, half full, and empty containers (M1.1.5)</li> </ul>	<p><b>The student demonstrates conceptual understanding</b></p> <ul style="list-style-type: none"> <li>• <b>of whole numbers to one hundred by</b></li> <li>[1] N-1 reading, writing, ordering/counting and modeling correspondence of whole numbers</li> <li>[1] N-2 comparing whole numbers using the words greater than, less than or equal to</li> <li>[1] N-3 identifying ordinal position, first to the twentieth (M1.1.4)</li> <li>• <b>of simple fractions</b></li> <li>[1] N-4 dividing an even numbered set of concrete objects (up to 50) into halves (M1.1.5)</li> <li>[1] N-5 dividing geometric shapes into equal halves, fourths, and thirds (M1.1.5)</li> </ul>	<p><b>The student demonstrates conceptual understanding</b></p> <ul style="list-style-type: none"> <li>• <b>of whole numbers to one thousand by</b></li> <li>[2] N-1 reading, writing, ordering/counting and modeling correspondence of whole numbers (M1.1.1)</li> <li>[2] N-2 modeling and identifying place value positions: ones, tens, and hundreds (M1.1.2)</li> <li>• <b>of simple fractions</b></li> <li>[2] N-3 identifying fractions as equal parts of a whole, a region, or a set (M1.1.5)</li> <li>[2] N-4 reading and writing numerals for simple fractions (M1.1.5)</li> </ul>	<p><b>The student demonstrates conceptual understanding</b></p> <ul style="list-style-type: none"> <li>• <b>of whole numbers to one thousand by</b></li> <li>[3] N-1 reading, writing, ordering, or [counting L] (M1.1.1)</li> <li>[3] N-2 modeling (base ten blocks) or identifying place value positions to thousands (M1.1.2)</li> <li>[3] N-3 using appropriate representations of ordinal or cardinal numbers (M1.1.4)</li> <li>• <b>of simple fractions with denominators 2, 3, 4 or 10 by</b></li> <li>[3] N-4 identifying, describing with explanations, or illustrating equal parts of a whole, a region, or a set (using models) (M1.1.5)</li> <li>[3] N-5 identifying, describing with explanations, or illustrating equivalent representation of fractions (using models) (M1.1.5)</li> </ul>

## Math Performance Standards (Grade Level Expectations) Grades K-2

<b>Understanding Meaning of Operations</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates conceptual understanding of mathematical operations by</b></p> <p><b>[K] N-9</b> recognizing (+), (-), and (=) signs (M1.1.3)</p> <p><b>[K] N-10</b> using objects or pictures to model addition and subtraction of whole numbers (M1.1.3)</p> <p><b>[K] N-11</b> using number lines or objects related to real situations (M1.1.3)</p>	<p><b>The student demonstrates conceptual understanding of mathematical operations by</b></p> <p><b>[1] N-6</b> using objects, pictures, and problem situations to model addition and subtraction of whole numbers (M1.1.3)</p> <p><b>[1] N-7</b> identifying groups of objects as repeated addition or equal shares (M1.1.3)</p>	<p><b>The student demonstrates conceptual understanding of mathematical operations by</b></p> <p><b>[2] N-5</b> describing or illustrating the processes of addition and subtraction of whole numbers and their relationships (M1.1.3)</p>	<p><b>The student demonstrates conceptual understanding of mathematical operations by</b></p> <p><b>[3] N-6</b> [using models, explanations, number lines, or real-life situations L] describing or illustrating the processes of addition and subtraction of whole numbers and their relationships (M1.1.3)</p>

<b>Number Theory</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates conceptual understanding of number theory by</b></p> <p><b>[K] N-12</b> demonstrating skip counting by 2's, 5's, and 10's with support (M1.1.6)</p>	<p><b>The student demonstrates conceptual understanding of number theory by</b></p> <p><b>[1] N-8</b> skip counting by 2's to 20 and 5's and 10's to 100 (M1.1.6)</p> <p><b>[1] N-9</b> identifying odd and even numbers up to 20 (M1.1.6)</p> <p><b>[1] N-10</b> identifying fact families (M1.1.3)</p>	<p><b>The student demonstrates conceptual understanding of number theory by</b></p> <p><b>[2] N-6</b> modeling or explaining the commutative and identity properties of addition (M1.1.7)</p> <p><b>[2] N-7</b> identifying or using patterns in the number system (skip count by 2's, 5's, or 10's; add or subtract by 10; identify even or odd numbers) (M1.1.6)</p> <p><b>[2] N-8</b> modeling fact families (M1.1.3)</p>	<p><b>The student demonstrates conceptual understanding of number theory by</b></p> <p><b>[3] N-7</b> [describing or illustrating identity property of addition L] (M1.1.7)</p> <p><b>[3] N-8</b> [modeling (with manipulatives) and explaining commutative property of addition L] (M1.1.7)</p> <p><b>[3] N-9</b> identifying or using patterns in the number system (skip count by 2's, 5's, or 10's; add or subtract by 10; even or odd numbers) (M1.1.6)</p>

## Math Performance Standards (Grade Level Expectations) Grades K-2

**Content Standard A: Mathematical facts, concepts, principles, and theories**

**Measurement: Select and use systems, units, and tools of measurement**

**Measurement Performance Standards that apply to grades K-3:** **M2.1.1** Compare and order objects by various measurable attributes including calendar, temperature, length, weight, capacity, area, and volume. **M2.1.2** Compare objects to standard and non-standard units to identify objects that are greater than, less than, and equal to, a given unit. **M2.1.3** Choose a unit of measure, estimate the length or weight of objects and then measure to check for reasonableness. **M2.1.4** Tell time to the nearest half hour, distinguishing between morning, afternoon, and evening. **M2.1.5** Identify coins, their value, and the value of given sets of coins.

### Measurable Attributes

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[K] MEA-1</b> making comparisons between objects using concepts of big/little, long/short, large/small, more/less, same (M2.1.1)</p> <p><b>[K] MEA-2</b> identifying coins by name: penny, nickel, dime, and quarter (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[1] MEA-1</b> measuring and/or comparing objects using standard and nonstandard units (M2.1.2)</p> <p><b>[1] MEA-2</b> identifying money by its value (e.g., penny, nickel, dime, quarter, dollar) (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[2] MEA-1</b> measuring to the nearest inch or foot (M2.1.3)</p> <p><b>[2] MEA-2</b> comparing and ordering objects by length, weight, area, time, temperature (M2.1.1)</p> <p><b>[2] MEA-3</b> comparing objects to standard and nonstandard units to identify objects that are greater than, less than, and equal to a given unit (M2.1.2)</p> <p><b>[2] MEA-4</b> identifying coins, their value, or the value of a set of coins up to one dollar (M2.1.5)</p>	<p><b>The student demonstrates understanding of measurable attributes by</b></p> <p><b>[3] MEA-1</b> [estimating length to the nearest inch or foot L] (M2.1.3)</p> <p><b>[3] MEA-2</b> comparing and ordering objects according to measurable attribute (calendar, length, [temperature, weight, area, or volume L]) (M2.1.1)</p> <p><b>[3] MEA-3</b> identifying or describing objects that are greater than, less than, or equal to a unit of measure (standard or non-standard) (M2.1.2)</p> <p><b>[3] MEA-4</b> selecting an appropriate unit of English, metric, or non-standard measurement to estimate the length, time, weight, or temperature (M2.1.3)</p> <p><b>[3] MEA-5</b> identifying coins, their value, or the value of a set of coins (M2.1.5)</p>

## Math Performance Standards (Grade Level Expectations) Grades K-2

<b>Measurement Techniques</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates ability to use measurement techniques by</b></p> <p>[K] <b>MEA-3</b> identifying instruments used to measure length, time, and temperature (M2.1.3)</p> <p>[K] <b>MEA-4</b> naming in sequence the days of the week (M2.1.1)</p> <p>[K] <b>MEA-5</b> telling time to the hour using analog and digital clocks (M2.1.4)</p>	<p><b>The student demonstrates ability to use measurement techniques by</b></p> <p>[1] <b>MEA-3</b> drawing a line segment to the nearest inch (M2.1.3)</p> <p>[1] <b>MEA-4</b> telling time to the nearest half hour using analog and digital clocks (M2.1.4)</p> <p>[1] <b>MEA-5</b> comparing concepts such as: before/after, shorter/longer (M2.1.1)</p> <p>[1] <b>MEA-6</b> reading a calendar (distinguishing yesterday, today, and tomorrow) (M2.1.1)</p> <p>[1] <b>MEA-7</b> recognizing money symbols (\$, ¢) (M2.1.5)</p> <p>[1] <b>MEA-8</b> identifying equal values of a coin up to a dollar (5 pennies = 1 nickel, 5 nickels = 1 quarter) (M2.1.5)</p>	<p><b>The student demonstrates ability to use measurement techniques by</b></p> <p>[2] <b>MEA-5</b> selecting and using appropriate tools of measurement (M2.1.3)</p> <p>[2] <b>MEA-6</b> drawing a line segment to the nearest half inch (M2.1.3)</p> <p>[2] <b>MEA-7</b> telling time to the nearest ¼ hour using analog and digital clocks (M2.1.4)</p> <p>[2] <b>MEA-8</b> ordering the months of the year (M2.1.1)</p> <p>[2] <b>MEA-9</b> writing the date using words and numbers (day, month, year) (M2.1.1)</p> <p>[2] <b>MEA-10</b> counting change (coins) up to a dollar (M2.1.5)</p> <p>[2] <b>MEA-11</b> recognizing money symbols including a decimal point (\$, ¢, .) (M2.1.5)</p> <p>[2] <b>MEA-12</b> identifying equal values of coins up to a dollar (M2.1.5)</p>	<p><b>The student demonstrates ability to use measurement techniques using pictorial representations [or manipulatives L] in real-world contexts by</b></p> <p>[3] <b>MEA-6</b> measuring length to the nearest half-inch (M2.1.3)</p> <p>[3] <b>MEA-7</b> telling time to the nearest ¼ hour using an analog clock or [distinguishing morning, afternoon, or evening L] (M2.1.4)</p> <p>[3] <b>MEA-8</b> determining elapsed time using a calendar (M2.2.5)</p> <p>[3] <b>MEA-9</b> [counting back change from \$1.00 L] (M2.2.6)</p>

## Math Performance Standards (Grade Level Expectations) Grades K-2

**Content Standard A:** Mathematical facts, concepts, principles, and theories.

**Estimation and Computation:** Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools

**Estimation and Computation Performance Standards that apply to grades K-3:** **M3.1.1** Make reasonable estimates of “how many” and “how much”; estimate the results of simple addition and subtraction problems. **M3.1.2** Recall and use basic addition and subtraction facts orally and with paper and pencil without a calculator. **M3.1.3** Add and subtract whole numbers to 100 using a variety of models and algorithms. **M3.1.4** Model multiplication as repeated addition and grouping objects; model division as “sharing equally” and grouping objects.

### Estimation

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</b></p> <p><b>[K] E&amp;C-1</b> comparing the number of objects in different sets using more, less, same</p> <p><b>[K] E&amp;C-2</b> estimating the number of objects in a given set as more or less than 10 (M3.1.1)</p>	<p><b>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</b></p> <p><b>[1] E&amp;C-1</b> estimating “how many” and “how much” in a given set up to 20</p> <p><b>[1] E&amp;C-2</b> identifying whether estimation or counting is appropriate with support (M3.1.1)</p>	<p><b>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</b></p> <p><b>[2] E&amp;C-1</b> estimating “how many” and “how much” in a given set up to 30</p> <p><b>[2] E&amp;C-2</b> estimating the results of simple addition and subtraction problems up to <u>100</u> (M3.1.1)</p> <p><b>[2] E&amp;C-3</b> identifying whether estimation or counting is appropriate (M3.1.1)</p>	<p><b>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</b></p> <p><b>[3] E&amp;C-1</b> finding “how many” or “how much” to 50 (M3.1.1)</p> <p><b>[3] E&amp;C-2</b> estimating the results of simple addition and subtraction problems up to <u>1,000</u> (M3.1.1)</p>

### Computation

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student accurately solves problems (including real-world situations) involving</b></p> <p><b>[K] E&amp;C-3</b> adding and subtracting whole numbers up to ten using manipulatives (M3.1.3)</p>	<p><b>The student accurately solves problems (including real-world situations) involving</b></p> <p><b>[1] E&amp;C-3</b> recalling addition and subtraction facts 0-10 (M3.1.2)</p> <p><b>[1] E&amp;C-4</b> recalling doubles to 20 (M3.1.2)</p>	<p><b>The student accurately solves problems (including real-world situations) involving</b></p> <p><b>[2] E&amp;C-4</b> recalling addition and subtraction facts to 20 (M3.1.2)</p> <p><b>[2] E&amp;C-5</b> solving two-digit addition and subtraction problems using a variety of models and algorithms (M3.1.3)</p> <p><b>[2] E&amp;C-6</b> using repeated addition with objects to model multiplication (M3.1.4)</p> <p><b>[2] E&amp;C-7</b> using equal shares with objects to model division (M3.1.4)</p>	<p><b>The student accurately solves problems (including real-world situations) involving</b></p> <p><b>[3] E&amp;C-3</b> [recalling basic addition and subtraction facts, sums to 20, and corresponding subtraction facts efficiently L] (M3.1.2)</p> <p><b>[3] E&amp;C-4</b> adding or subtracting two-digit whole numbers (M3.1.3)</p> <p><b>[3] E&amp;C-5</b> using repeated addition to model multiplication with whole numbers with products to 25 (M3.1.4)</p> <p><b>[3] E&amp;C-6</b> using grouping or “sharing equally” to model division with whole numbers to 25 (M3.1.4)</p>

## Math Performance Standards (Grade Level Expectations) Grades K-2

### Content Standard A: Mathematical facts, concepts, principles, and theories

#### Functions and Relationships: Represent, analyze, and use patterns, relations, and functions

**Functions and Relationships Performance Standards that apply to grades K-3:** **M4.1.1** Recognize, describe, create, and extend repeating and increasing patterns with a variety of materials including symbols, objects, and manipulatives. **M4.1.2** Generate and solve simple functions by identifying and applying addition and subtraction patterns. **M4.1.3** Use a calculator to find and extend patterns in the number system. **M4.1.4** Complete open space sentences with missing numbers; use appropriate vocabulary including greater than, less than, and equal to; and use the correct symbols.

#### Describing Patterns and Functions

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates conceptual understanding of functions, patterns, or sequences by</b></p> <p>[K] <b>F&amp;R-1</b> recognizing patterns found in common objects, sounds, and movements (M4.1.1)</p> <p>[K] <b>F&amp;R-2</b> identifying, sorting, and classifying objects by attribute and identifying objects that do not belong to a particular group (M4.1.1)</p> <p>[K] <b>F&amp;R-3</b> recognizing, identifying, and continuing simple patterns of color, shape, or size (M4.1.1)</p>	<p><b>The student demonstrates conceptual understanding of functions, patterns, or sequences by</b></p> <p>[1] <b>F&amp;R-1</b> identifying, naming (e.g., aabb, abab), and continuing a variety of patterns (M4.1.1)</p> <p>[1] <b>F&amp;R-2</b> creating patterns involving number, shape, size, rhythm, or color (M4.1.1)</p>	<p><b>The student demonstrates conceptual understanding of functions, patterns, or sequences by</b></p> <p>[2] <b>F&amp;R-1</b> identifying and continuing patterns, including numbers (M4.1.1)</p> <p>[2] <b>F&amp;R-2</b> describing a rule or relation that determines and continues a sequence or pattern (M4.1.1)</p>	<p><b>The student demonstrates conceptual understanding of functions by</b></p> <p>[3] <b>F&amp;R-1</b> identifying a missing element in a pattern up to the next three terms (identifying a number using addition or subtraction or objects); or explaining how missing elements could be found (M4.1.1)</p> <p><b>F&amp;R-2</b> [expressing a generalization of a pattern using words L] (M4.1.1 &amp; M4.1.2)</p> <p>[3] <b>F&amp;R-3</b> [using manipulatives, including a calculator, as tools when describing, extending, or representing patterns L] (M4.1.1 &amp; M4.1.3)</p>

#### Modeling and Solving Equations and Inequalities

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates algebraic thinking by</b></p> <p>[K] <b>F&amp;R-4</b> adding or subtracting whole numbers to 10 using manipulatives to solve story problems (M4.1.4)</p> <p>[K] <b>F&amp;R-5</b> showing more, less, or equal to using objects (M4.1.4)</p>	<p><b>The student demonstrates algebraic thinking by</b></p> <p>[1] <b>F&amp;R-3</b> adding and subtracting whole numbers to 20 using manipulatives to solve story problems (M4.1.4)</p> <p>[1] <b>F&amp;R-4</b> creating and solving problems using words, symbols, and drawings (M4.1.4)</p> <p>[1] <b>F&amp;R-5</b> using the terms equal to, more than, and less than for numbers up to 20 (M4.1.4)</p>	<p><b>The student demonstrates algebraic thinking by</b></p> <p>[2] <b>F&amp;R-3</b> solving a problem with an unknown (e.g., <math>7 + ? = 10</math>) (M4.1.4)</p> <p>[2] <b>F&amp;R-4</b> using the terms equal to, greater than, and less than for numbers up to 100 (M4.1.4)</p>	<p><b>The student demonstrates algebraic thinking by</b></p> <p>[3] <b>F&amp;R-4</b> using an open number sentence (addition or subtraction) to solve for an unknown represented by a box or circle (e.g., <math>5 + \square = 16</math>, <math>-7 = 4</math>, <math>5 + 2 = \square</math>) (M4.1.4)</p> <p>[3] <b>F&amp;R-5</b> using appropriate vocabulary or symbols for greater than, less than, or equal to (M4.1.4)</p>

## Math Performance Standards (Grade Level Expectations) Grades K-2

**Content Standard A: Mathematical facts, concepts, principles, and theories.**

**Geometry: Construct, transform, and analyze geometric figures.**

**Geometry Performance Standards that apply to grades K-3:** **M5.1.1** Identify, sort, describe, model, and compare circles, triangles, and rectangles including squares regardless of orientation. **M5.1.2** Identify, sort, describe, model, and compare solid figures including cubes, cylinders, and spheres. **M5.1.3** Identify and create examples of line symmetry; compare and describe given circles, triangles, and rectangles as larger, smaller, or congruent. **M5.1.4** Demonstrate conservation of area using drawings or manipulatives. **M5.1.5** Describe and identify geometric transformations including slides, flips, and turns. **M5.1.6** Use comparative directional and positional words: above, below, inside, outside, on, in, right and left, horizontal, vertical, and middle. **M5.1.7** Draw and build familiar shapes.

### Geometric Relationships

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates an understanding of geometric relationships by</b></p> <p>[K] <b>G-1</b> sorting and classifying shapes according to similar attributes (M5.1.1)</p> <p>[K] <b>G-2</b> describing objects using three attributes such as size, color, and shape (M5.1.1)</p> <p>[K] <b>G-3</b> identifying triangle, circle, rectangle, and square (M5.1.1)</p>	<p><b>The student demonstrates an understanding of geometric relationships by</b></p> <p>[1] <b>G-1</b> identifying the attributes of 2-dimensional shapes (e.g., a triangle has three sides) (M5.1.1)</p> <p>[1] <b>G-2</b> identifying and classifying 2 dimensional shapes through visual observations and properties (e.g., which of these shapes is a triangle) (M5.1.1)</p> <p>[1] <b>G-3</b> relating real-world examples (e.g., a door is shaped like a rectangle) to the ideas and concepts of geometry (M5.1.2)</p>	<p><b>The student demonstrates an understanding of geometric relationships by</b></p> <p>[2] <b>G-1</b> describing attributes of a triangle, circle, square, and rectangle (M5.1.1)</p> <p>[2] <b>G-2</b> identifying and classifying 3-dimensional shapes (e.g., cone, sphere and cylinder) (M5.1.1)</p> <p>[2] <b>G-3</b> relating real-world examples to the ideas and concepts of geometry* (M5.1.2)</p> <p>[2] <b>G-4</b> constructing, comparing, classifying, and describing the relationship among geometric figures (M5.1.2)</p>	<p><b>The student demonstrates an understanding of geometric relationships by</b></p> <p>[3] <b>G-1</b> using the number or length of sides to identify, describe, [model L], or compare triangles or rectangles (including squares) (M5.1.1)</p> <p>[3] <b>G-2</b> using the attributes and properties of plane figures to [model L], identify, compare, or describe plane figures (circles, rectangles, squares, and triangles)[and solid figures (cubes, cylinders, or spheres) L] (M5.1.1 &amp; M5.1.2)</p>

### Similarity, Congruence, Symmetry, and Transformation of Shapes

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</b></p> <p>[K] <b>G-4</b> comparing geometric shapes (M5.1.3)</p>	<p><b>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</b></p> <p>[1] <b>G-4</b> comparing shapes in the real world (M5.1.3)</p>	<p><b>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</b></p> <p>[2] <b>G-5</b> creating simple shapes using concrete materials/manipulatives (M5.1.3)</p> <p>[2] <b>G-6</b> identifying or drawing lines of symmetry for simple shapes (M5.1.3)</p>	<p><b>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</b></p> <p>[3] <b>G-3</b> identifying, creating, or drawing lines of symmetry for real-world objects (e.g., block letters, flags, insects) (M5.1.3)</p> <p>[3] <b>G-4</b> comparing or describing shapes (circles, triangles, or rectangles) as “larger than,” “smaller than,” or “congruent to,” a given shape (M5.1.3)</p> <p>[3] <b>G-5</b> illustrating or identifying the results of transformations (slides) of polygons (M5.1.5)</p>

\*Assumes an increasing level of mathematical skill applications

## Math Performance Standards (Grade Level Expectations) Grades K-2

<b>Perimeter, Area, Volume, and Surface Area</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student solves problems using perimeter or area by</b></p> <p>Not addressed at this grade level.</p>	<p><b>The student solves problems using perimeter or area by</b></p> <p>Not addressed at this grade level.</p>	<p><b>The student solves problems using perimeter or area by</b></p> <p>[2] <b>G-7</b> explaining the difference between perimeter and area (M5.1.4)</p> <p>[2] <b>G-8</b> determining perimeter and area of rectangular shapes using grid paper and/or manipulatives (M5.1.4)</p>	<p><b>The student solves problems using perimeter or area by</b></p> <p>[3] <b>G-6</b> estimating or determining area or perimeter of rectangular or square shapes on grids (M5.1.4)</p>

<b>Position and Direction</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates understanding of position and direction by</b></p> <p>[K] <b>G-5</b> identifying positions of objects that are above, below, before, after, next to, in the middle of, in front of, behind... (M5.1.6)</p>	<p><b>The student demonstrates understanding of position and direction by</b></p> <p>[1] <b>G-5</b> modeling directional and positional concepts: before, after, between, next to, around, above, below, in the middle of... (M5.1.6)</p>	<p><b>The student demonstrates understanding of position and direction by</b></p> <p>[2] <b>G-9</b> describing relative locations of objects using directional terms (inside, outside, right, left) (M5.1.6)</p> <p>[2] <b>G-10</b> creating a simple map to show location of objects (M5.1.6)</p>	<p><b>The student demonstrates understanding of position and direction by</b></p> <p>[3] <b>G-7</b> [using directional terms (inside, outside, right, left, horizontal, vertical) to describe relative location of objects in a picture L] (M5.1.6)</p>

<b>Construction</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates a conceptual understanding of geometric drawings or constructions by</b></p> <p>[K] <b>G-6</b> drawing, copying, or describing triangles, squares, rectangles and circles (M5.1.7)</p>	<p><b>The student demonstrates a conceptual understanding of geometric drawings or constructions by</b></p> <p>[1] <b>G-6</b> drawing, copying, or describing a variety of shapes (M5.1.7)</p> <p>[1] <b>G-7</b> identifying geometric shapes in real-world objects (M5.1.7)</p>	<p><b>The student demonstrates a conceptual understanding of geometric drawings or constructions by</b></p> <p>[2] <b>G-11</b> drawing, copying, or describing a variety of shapes* (M5.1.7)</p>	<p><b>The student demonstrates a conceptual understanding of geometric drawings or constructions by</b></p> <p>[3] <b>G-8</b> [drawing real-world objects that consist of geometric shapes (squares, rectangles, triangles, or circles) L] (M5.1.7)</p>

\*Assumes an increasing level of mathematical skill applications

## Math Performance Standards (Grade Level Expectations) Grades K-2

### Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions

**Statistics and Probability Performance Standards that apply to grades K-3:** **M6.1.1** Collect, record, organize, display, and explain the classification of data. **M6.1.2** Describe data from a variety of visual displays including tallies, tables, pictographs, bar graphs, and Venn diagrams. **M6.1.3** Use the terms “maximum” and “minimum” when working with a data set. **M6.1.4** Find and record the possibilities of simple probability experiments; explain differences between chance and certainty, giving examples. **M6.1.5** Conduct a survey and tally the results.

#### Data Display

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates an ability to classify and organize data by</b></p> <p>[K] <b>S&amp;P-1</b> constructing real graphs using concrete objects or pictographs with support (M6.1.1)</p> <p>[K] <b>S&amp;P-2</b> collecting and recording data with support (M6.1.1)</p>	<p><b>The student demonstrates an ability to classify and organize data by</b></p> <p>[1] <b>S&amp;P-1</b> constructing and using real graphs, pictographs, and bar graphs (M6.1.1)</p> <p>[1] <b>S&amp;P-2</b> collecting and recording data (M6.1.1)</p> <p>[1] <b>S&amp;P-3</b> interpreting data with support (M6.1.1)</p>	<p><b>The student demonstrates an ability to classify and organize data by</b></p> <p>[2] <b>S&amp;P-1</b> constructing a variety of graphs from realistic situations (M6.1.1)</p> <p>[2] <b>S&amp;P-2</b> collecting, recording, interpreting, and representing data in a variety of ways (M6.1.1)</p>	<p><b>The student demonstrates an ability to classify and organize data by</b></p> <p>[3] <b>S&amp;P-1</b> [designing an investigation and collecting, recording L], organizing, displaying, or explaining the classification of data in real-world problems (e.g., literature, self, or family), using bar graphs, and [Venn diagrams L] (M6.1.1, M6.1.2, &amp; M6.1.5)</p>

#### Analysis and Central Tendency

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</b></p> <p>[K] <b>S&amp;P-3</b> describing information from real graphs or pictographs (M6.1.2)</p>	<p><b>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</b></p> <p>[1] <b>S&amp;P-4</b> describing information from simple charts/graphs (M6.1.2)</p>	<p><b>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</b></p> <p>[2] <b>S&amp;P-3</b> describing data from a variety of graphs (e.g., newspapers, magazines, texts, computers, and other sources) (M6.1.2)</p>	<p><b>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, or justifying conclusions) by</b></p> <p>[3] <b>S&amp;P-2</b> using information from a variety of displays (tallies, tables, pictographs, bar graphs, or [Venn diagrams L] (M6.1.2)</p> <p>[3] <b>S&amp;P-3</b> using the terms “maximum” or “minimum” (M6.1.3)</p>

**Math Performance Standards  
(Grade Level Expectations) Grades K-2**

<b>Probability</b>			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates a conceptual understanding of probability and counting techniques by</b></p> <p>[K] <b>S&amp;P-4</b> making simple predictions using events or repeated observations (M6.1.4)</p>	<p><b>The student demonstrates a conceptual understanding of probability and counting techniques by</b></p> <p>[1] <b>S&amp;P-5</b> predicting, interpreting, and comparing data using events or repeated observations (M6.1.4)</p>	<p><b>The student demonstrates a conceptual understanding of probability and counting techniques by</b></p> <p>[2] <b>S&amp;P-4</b> predicting, interpreting, and comparing data using events or repeated observations* (M6.1.4)</p> <p>[2] <b>S&amp;P-5</b> recognizing the difference between chance and certainty (M6.1.4)</p>	<p><b>The student demonstrates a conceptual understanding of probability by</b></p> <p>[3] <b>S&amp;P-4</b> [explaining the differences between chance and certainty or recognizing events that may be certain or chance events L] (M6.1.4)</p> <p>[3] <b>S&amp;P-5</b> [Finding and recording L] and making predictions about the likelihood of outcomes of a simple probability experiment (e.g., spinner, tossing a coin) (M6.1.4)</p>

\*Assumes an increasing level of mathematical skill applications

## Math Performance Standards (Grade Level Expectations) Grades K-2

### Content Standards B, C, D, and E: Process skills and abilities

Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections

**Problem-Solving Performance Standards that apply to grades K-3:** **M7.1.1** Formulate problems from practical and mathematical activities. **M7.1.2** Develop and apply strategies including guess and check, modeling and acting out, drawings, and extending patterns to solve a variety of problems. **M7.1.3** Predict an answer before solving a problem and compare results to check for reasonableness.

**Problem Solving:** Understand and be able to select and use a variety of problem-solving strategies

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student demonstrates an ability to problem solve by</b></p> <p>[K] <b>PS-1</b> solving simple problems using concrete objects (M7.1.2)</p>	<p><b>The student demonstrates an ability to problem solve by</b></p> <p>[1] <b>PS-1</b> creating and solving simple problems using a variety of strategies (M7.1.1 &amp; M7.1.2)</p>	<p><b>The student demonstrates an ability to problem solve by</b></p> <p>[2] <b>PS-1</b> creating and solving a variety of problems using appropriate strategies (M7.1.1 &amp; M7.1.2)</p> <p>[2] <b>PS-2</b> choosing appropriate operations to solve a given problem (M7.1.2)</p>	<p><b>The student demonstrates an ability to problem solve by</b></p> <p>[3] <b>PS-1</b> selecting and applying an appropriate strategy (e.g., guess and check; draw a picture; make a model, extend a pattern) to solve a variety of problems (M7.1.2)</p>

**Communication Performance Standards that apply to grades K-3:** **M8.1.1** Translate problems from everyday language into math language and symbols. **M8.1.2** Use manipulatives, models, pictures, and language to represent and communicate mathematical ideas. **M8.1.3** Use everyday language to explain thinking about problem solving strategies and solutions to problems.

**Communication:** Form and use appropriate methods to define and explain mathematical relationships

Kindergarten	Grade 1	Grade 2	Grade 3
<p><b>The student communicates his or her mathematical thinking by</b></p> <p>[K] <b>PS-2</b> telling how objects were used to solve simple problems (M8.1.2)</p>	<p><b>The student communicates his or her mathematical thinking by</b></p> <p>[1] <b>PS-2</b> translating problems from everyday language into math language and symbols (+, -, =) (M8.1.1)</p> <p>[1] <b>PS-3</b> using everyday language to explain thinking about problem solving strategies and solutions to problems (M8.1.3)</p>	<p><b>The student communicates his or her mathematical thinking by</b></p> <p>[2] <b>PS-3</b> translating problems from everyday language into math language and symbols (+, -, =, &lt;, &gt;) (M8.1.1)</p> <p>[2] <b>PS-4</b> using everyday language to explain thinking about problem solving strategies and solutions to problems * (M8.1.3)</p> <p>[2] <b>PS-5</b> using manipulatives, models, pictures, and language to represent and communicate mathematical ideas (M8.1.2)</p>	<p><b>The student communicates his or her mathematical thinking by</b></p> <p>[3] <b>PS-2</b> representing mathematical problems using manipulatives, models, pictures, and/or everyday language; or using everyday language to explain thinking about the problem-solving strategies and solutions to problems (M8.1.1, M8.1.2, &amp; M8.1.3)</p>

\*Assumes an increasing level of mathematical skill applications

**Math Performance Standards  
(Grade Level Expectations) Grades K-2**

**Reasoning Performance Standards that apply to grades K-3:** **M9.1.1** Draw conclusions about mathematical problems. **M9.1.2** Find examples that support or refute mathematical statements. **M9.1.3** Explain why a prediction, estimation, or solution is reasonable.

<b>Reasoning:</b> Use logic and reason to solve mathematical problems			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student demonstrates an ability to use logic and reason by</b></p> <p>[K] <b>PS-3</b> explaining what makes sense (M9.1.3)</p> <p>[K] <b>PS-4</b> drawing pictures that support simple mathematical statements (M9.1.2)</p>	<p><b>The student demonstrates an ability to use logic and reason by</b></p> <p>[1] <b>PS-4</b> explaining why a prediction or solution is reasonable (M9.1.3)</p> <p>[1] <b>PS-5</b> drawing pictures that support mathematical statements (M9.1.2)</p>	<p><b>The student demonstrates an ability to use logic and reason by</b></p> <p>[2] <b>PS-6</b> explaining why a prediction, estimation, or solution is reasonable (M9.1.3)</p> <p>[2] <b>PS-7</b> drawing pictures that support or refute mathematical statements (M9.1.2)</p>	<p><b>The student demonstrates an ability to use logic and reason by</b></p> <p>[3] <b>PS-3</b> drawing conclusions about mathematical problems; or finding examples that support or refute mathematical statements (M9.1.1 &amp; M9.1.2)</p> <p>[3] <b>PS-4</b> explaining whether or not a prediction, estimation, or solution is reasonable (M9.1.3)</p>

**Connections Performance Standards that apply to grades K-3:** **M10.1.1** Apply mathematical skills and processes to literature. **M10.1.2** Apply mathematical skills and processes to situations with self and family.

<b>Connections:</b> Apply mathematical concepts and processes to situations within and outside of school.			
<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>
<p><b>The student understands and applies mathematical skills and processes across the content strands by</b></p> <p>[K] <b>PS-5</b> using real world context (i.e., self, friends, and family) (M10.1.2)</p>	<p><b>The student understands and applies mathematical skills and processes across the content strands by</b></p> <p>[1] <b>PS-6</b> using real world context (i.e., self, friends, and family)* (M10.1.2)</p>	<p><b>The student understands and applies mathematical skills and processes across the content strands by</b></p> <p>[2] <b>PS-8</b> using real world context (e.g., self, friends, and family)* (M10.1.2)</p>	<p><b>The student understands and applies mathematical skills and processes across the content strands by</b></p> <p>[3] <b>PS-5</b> using real-world contexts such as literature, self, and family (M10.1.1. &amp; M10.1.2)</p>

\*Assumes an increasing level of mathematical skill applications