California's COMMON CORE

Content Standards
Second Grade

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Content Standards for ELA and Mathematics Second Grade

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The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's gradespecific standards and retain or further develop skills and understandings mastered in preceding grades.

LITERATURE

Key Ideas and Details

1st

- 1. Ask and answer questions about key details in a text.
- Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- 3. Describe characters, settings, and major events in a story, using key details.

2_{ND}

- Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- Describe how characters in a story respond to major events and challenges.

3_{RD}

- Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
- 3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
- Anchor R.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
- Anchor R.2 Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

 Anchor R.3 Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

Craft and Structure

- Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
- Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
- 6. Identify who is telling the story at various points in a text.

- Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
- Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
- 5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
- Distinguish their own point of view from that of the narrator or those of the characters.
- Anchor R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- Anchor R.5 Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
- Anchor R.6 Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

1ST

- 7. Use illustrations and details in a story to describe its characters, setting, or events.
- 8. (Not applicable to literature)
- 9. Compare and contrast the adventures and experiences of characters in stories.

2ND

- Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- 8. (Not applicable to literature)
- Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

3_{RD}

- Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
- 8. (Not applicable to literature)
- Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).
- Anchor R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.¹
- Anchor R.8 Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
- Anchor R.9 Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading & Level of Text Complexity

- 10. With prompting and support, read prose and poetry of appropriate complexity for grade 1.
- a. Activate prior knowledgerelated to the information and events in a text.
 b. Confirm predictions about what will
- happen next in a text.
- 10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
- 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.

Anchor R.10 Read and comprehend complex literary and informational texts independently and proficiently.

¹ Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

INFORMATIONAL TEXT

Key Ideas and Details

1st

- 1. Ask and answer questions about key details in a text.
- 2. Identify the main topic and retell key details of a text.
- Describe the connection between two individuals, events, ideas, or pieces of information in a text.

2_{ND}

- Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
- 3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

3_{RD}

- Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers
- 2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
- Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- Anchor R.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
- Anchor R.2 Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. Anchor R.3 Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

Craft and Structure

- 4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. (See grade 1 Language standards 4-6 on pages 19-20 for additional expectations.)
- 5. Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
- Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

- Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
- Know and use various text features

 (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

- Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
- Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
- 6. Distinguish their own point of view from that of the author of a text.
- Anchor R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- Anchor R.5 Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
- Anchor R.6 Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

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- 7. Use the illustrations and details in a text to describe its key ideas.
- 8. Identify the reasons an author gives to support points in a text.
- 9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

2_{ND}

- 7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- 8. Describe how reasons support specific points the author makes in a text.
- 9. Compare and contrast the most important points presented by two texts on the same topic.

3_{RD}

- 7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
- 8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
- Compare and contrast the most important points and key details presented in two texts on the same topic.
- Anchor R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.²
- Anchor R.8 Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
- Anchor R.9 Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading & Level of Text Complexity

- 10. With prompting and support, read informational texts appropriately complex for grade 1.
- a. Activate prior knowledge related to the information and events in a text.
- b. Confirm predictions about what will happen next in a text.
- 10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
- 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

Anchor R.10 Read and comprehend complex literary and informational texts independently and proficiently.

² Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These foundational skills are not an end in and of themselves; rather, they are necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines. Instruction should be differentiated: good readers will need much less practice with these concepts than struggling readers will. The point is to teach students what they need to learn and not what they already know—to discern when particular children or activities warrant more or less attention.

FOUNDATIONAL SKILLS

Phonics & Word Recognition

1st

- 3. Know and apply grade-level phonics and word analysis skills in decoding words **both in isolation** and in text.
- a. Know the spelling-sound correspondences for common consonant digraphs.
- b. Decode regularly spelled one-syllable words
- c. Know final -e and common vowel team conventions for representing long vowel sounds.
- d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- e. Decode two-syllable words following basic patterns by breaking the words into syllables.
- f. Read words with inflectional endings.
- g. Recognize and read grade appropriate irregularly spelled words.

2_{ND}

- Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text.
- a. Distinguish long and short vowels when reading regularly spelled onesyllable words.
- b. Know spelling-sound correspondences for additional common vowel teams.
- c. Decode regularly spelled two-syllable words with long vowels.
- d. Decode words with common prefixes and suffixes.
- e. Identify words with inconsistent but common spelling-sound correspondences.
- f. Recognize and read grade-appropriate irregularly spelled words.

3_{RD}

- Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text.
- a. Identify and know the meaning of the most common prefixes and derivational suffixes.
- b. Decode words with common Latin suffixes.
- c. Decode multisyllable words.
- d. Read grade-appropriate irregularly spelled words.

Fluency

- 4. Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
- 4. Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or selfcorrect word recognition and understanding, rereading as necessary.
- 4. Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings
- c. Use context to confirm orself-correct word recognition and understanding, rereading as necessary.

WRITING STANDARDS

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

WRITING

Text Types & Purposes

1st

- Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
- 2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

2_{ND}

- 1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.
- Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

3. Write narratives in which they recount a wellelaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

- 1. Write opinion pieces on topics or texts, supporting a point of view with reasons.
- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- b. Provide reasons that $\,$ support the opinion.
- c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- d. Provide a concluding statement or section.
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
 - b. Develop the topic with facts, definitions, and details.
 - c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideaswithin categories of information.
 - d. Provide a concluding statement or section.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
 - a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
 - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
 - c. Use temporal words and phrases to signal event order.
 - d. Provide a sense of closure.
- Anchor W.1 Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
- Anchor W.2 Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- Anchor W.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

WRITING STANDARDS

Production & Distribution of Writing

1st

- 4. (Begins in grade **2**)
- With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
- 6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

2_{ND}

- 4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
- 6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

3_{RD}

- 4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- 6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.
- Anchor W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Anchor W.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

 Anchor W.6 Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build & Present Knowledge

- 7. Participate in shared research and writing projects (e.g., explore a number of "howto" books on a given topic and use them to write a sequence of instructions).
- 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- 9. (Begins in grade 4)

- 7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
- With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- 9. (Begins in grade 4)

- 7. Conduct short research projects that build knowledge about a topic.
- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
- 9. (Begins in grade 4)
- Anchor W.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- Anchor W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Anchor W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

WRITING STANDARDS

Range of Writing

1st

10. (Begins in grade <u>2</u>)

2_{ND}

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

3_{RD}

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Anchor W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

SPEAKING & LISTENING

The following standards offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Comprehension & Collaboration

1st

- Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
- a. Follow agreed-upon rulesfor discussions (e.g., listeningto others with care, speakingone at a time about the topicsand texts under discussion).
- Build on others' talk inconversations byresponding to the commentsof others through multiple exchanges.
- c. Ask questions to clear upany confusion about the topics and texts under discussion.

- Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
 - <u>a. Give, restate, and followsimple two-</u> <u>step directions.</u>
- Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

2_{ND}

- Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- Build on others' talk in conversations by linking their comments to the remarks of others.
- c. Ask for clarification and further explanation as needed about the topics and texts under discussion.

- 2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- a. Give and follow three- and fourstep oral directions.
- Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

- 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
 - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a timeabout the topics and texts under discussion).
 - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
 - d. Explain their own ideas and understanding in light of the discussion.
- Determine the main ideas and supporting details of a text read aloud orinformation presented in diverse media and formats, including visually, quantitatively, and orally.
- Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- Anchor SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
- Anchor SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- Anchor SL.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

SPEAKING & LISTENING

Presentation of Knowledge & Ideas

1ST

- 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
 - a. Memorize and recite poems, rhymes, and songs with expression.

- 5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- 6. Produce complete sentences when appropriate to task and situation.

2_{ND}

- Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
- a. Plan and deliver a narrative presentation that: recounts a well elaborated event, includes details, reflects a logical sequence, and provides a conclusion.
- Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
- Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

- Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
 - a. Plan and deliver an informative/
 explanatory_presentation on a
 topic that: organizes ideas around
 major points of information,
 follows a logical sequence, includes
 supporting details, uses clear and
 specific vocabulary, and provides a
 strong conclusion.
- Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
- 6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

- Anchor SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Anchor SL.5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
- Anchor SL.6 Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

The following standards for grades K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

1st

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- a. Print all upper- and lowercase letters.
- b. Use common, proper, and possessive nouns.
- c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops; We hop*).
- d. Use personal (subject, object), possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).
- e. Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).
- f. Use frequently occurring adjectives.
- g. Use frequently occurring conjunctions (e.g., *and*, *but*, *or*, *so*, *because*).
- h. Use determiners (e.g., articles, demonstratives).
- i. Use frequently occurring prepositions (e.g., during, beyond, toward).
- j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.

2_{ND}

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- a. Create readable documents with legible print.
- b. Use collective nouns (e.g., group).
- c. Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).
- d. Use reflexive pronouns (e.g., myself, ourselves).
- e. Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).
- f. Use adjectives and adverbs, and choose between them depending on what is to be modified.
- g. Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - a. Write legibly in cursive or joined italics, allowing margins and correct spacing between letters in a word and words in a sentence
- Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
- c. Use reciprocal pronouns correctly.
- d. Form and use regular and irregular plural nouns.
- e. Use abstract nouns (e.g., childhood).
- f. Form and use regular and irregular verbs.
- g. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses.
- h. Ensure subject-verb and pronounantecedent agreement.*
- i. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
- j. Use coordinating and subordinating conjunctions.
- k. Produce simple, compound, and complex sentences.

1st

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Capitalize dates and names of people.
- b. Use end punctuation for sentences.
- c. Use commas in dates and to separate single words in a series.
- d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
- e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.

2ND

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- a. Capitalize holidays, product names, and geographic names.
- b. Use commas in greetings and closings of letters.
- c. Use an apostrophe to form contractions and frequently occurring possessives.
- d. Generalize learned spelling patterns when writing words (e.g., cage badge; boy — boil).
- e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

3_{RD}

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Capitalize appropriate words in titles.
 - b. Use commas in addresses.
- c. Use commas and quotation marks in dialogue.
- d. Form and use possessives.
- e. Use conventional spelling for highfrequency and other studied words and for adding suffixes to base words (e.g.,sitting, smiled, cries, happiness).
- f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
- g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Anchor L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Anchor L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. (Begins in grade 2)

- 3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- a. Compare formal and informal uses of English.
- Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- a. Choose words and phrases for effect.*
- b. Recognize and observe differences between the conventions of spoken and written standard English.

Anchor L.3 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

1st

- 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content*, choosing flexibly from an array of strategies.
- a. Use sentence-level context as a clue to the meaning of a word or phrase.
- b. Use frequently occurring affixes as a clue to the meaning of a word.
- c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks, looked, looking*).

2_{ND}

- 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 2 reading and content*, choosing flexibly from an array of strategies.
- a. Use sentence-level context as a clue to the meaning of a word or phrase.
- b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
- c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
- d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).
- Use glossaries and beginning dictionaries, both print and digital, to determine or clarifythe meaning of words and phrases in all content areas.
- 5. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.
- a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.
- b. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
- c. Identify real-life connections between words and their use (e.g., note places at home that are *cozy*).
- d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing inintensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.

- Demonstrate understanding of word relationships and nuances in word meanings.
- a. Identify real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*).
- b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw,hurl) and closely related adjectives (e.g., thin, slender,skinny, scrawny).

- 4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies.
 - a. Use sentence-level context as a clue to the meaning of a word or phrase.
 - b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable disagreeable, comfortable/ uncomfortable, care/careless,heat/ preheat).
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion).
 - d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases <u>in all content</u> <u>areas.</u>
- Demonstrate understanding of word relationships and nuances in word meanings.
- a. Distinguish the literal and non-literal meanings of words and phrases in context (e.g., take steps).
- b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
- c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered)

1st

6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., I named my hamster Nibblet because she nibbles too much because she likes that).

2_{ND}

6. Use words and phrases acquired throughconversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

3_{RD}

6. Acquire and use accurately gradeappropriate conversational, general academic, and domain specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

Anchor L.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

Anchor L.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

Anchor L.6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

LANGUAGE PROGRESSIVE SKILLS, BY GRADE

The following skills, marked with an asterisk (*) in Language standards 1-3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

				Grade(s)	(s)			П
Standard	м	4	2	9	7	8	9-10	11-12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., to/too/two; there/their).								
L.4.3a. Choose words and phrases to convey ideas precisely.								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style. [‡]								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9–10.1a. Use parallel structure.								

STANDARD 10: RANGE, QUALITY, AND COMPLEXITY OF STUDENT READING K-5

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity,

and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Reader variables (such as motivation, knowledge, and experiences) Matching reader to text and task:

and task variables (such as purpose and the complexity generated by the task assigned and the questions posed)

Note: More detailed information on text complexity and how it is measured is contained in Appendix A

Range of Text Types for K-5

Students in grades K-5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

	Literature		Informational Text
Stories	Drama	Poetry	Literary Nonfiction
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

TEXT ILLUSTRATING THE COMPLEXITY, QUALITY, AND RANGE OF STUDENT READING K-5

		Literature: Stories, Dramas, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts	al, Scientific, and Technical Texts
	•	Over in the Meadow by John Langstaff (traditional) (c1800)*	My Five Senses by Aliki (1962)**	
	•	A Boy, a Dog, and a Frog by Mercer Mayer (1967)	Truck by Donald Crews (1980)	
*	•	Pancakes for Breakfast by Tomie DePaola (1978)	I Read Signs by Tana Hoban (1987)	
	•	· A Story, A Story by Gail E. Haley (1970)*	What Do You Do With a Tail Like This? by Steve Jenkins and Robin Page (2003)*	Jenkins and Robin Page (2003)*
	•	Kitten's First Full Moon by Kevin Henkes (2004)*	Amazing Whales! by Sarah L. Thomson (2005)*	
	•	"Mix a Pancake" by Christina G. Rossetti (1893)**	A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)**	d by Stacey Schuett (1960)**
	•	Mr. Popper's Penguins by Richard Atwater (1938)*	Starfish by Edith Thacher Hurd (1962)	
*	•	Little Bear by Else Holmelund Minarik, illustrated by Maurice	Follow the Water from Brook to Ocean by Arthur Dorros (1991)**	Dorros (1991)**
-		Sendak (1957)**	From Seed to Pumpkin by Wendy Pfeffer, illustrated by James Graham Hale	ted by James Graham Hale
	•	Frog and Toad Together by Arnold Lobel (1971)**	(2004)*	
	٠	Hii Fly Guy by Tedd Arnold (2006)	How People Learned to Fly by Fran Hodgkins and True Kelley (2007)*	d True Kelley (2007)*
	•	"Who Has Seen the Wind?" by Christina G. Rossetti (1893)	A Medieval Feast by Aliki (1983)	
	•	Charlotte's Web by E. B. White (1952)*	From Seed to Plant by Gail Gibbons (1991)	
Ċ	•	Sarah, Plain and Tall by Patricia MacLachlan (1985)	The Story of Ruby Bridges by Robert Coles (1995)*	5)*
C-7	•	Tops and Bottoms by Janet Stevens (1995)	A Drop of Water: A Book of Science and Wonder by Walter Wick (1997)	by Walter Wick (1997)
	•	Poppleton in Winter by Cynthia Rylant, illustrated by Mark Teague (2001)	Moonshot: The Flight of Apollo 11 by Brian Floca (2009)	(2009)
	•	Alice's Adventures in Wonderland by Lewis Carroll (1865)	Discovering Mars: The Amazing Story of the Red Planet by Melvin Berger (1992)	I Planet by Melvin Berger (1992)
	•	"Casey at the Bat" by Ernest Lawrence Thayer (1888)	Hurricanes: Earth's Mightiest Storms by Patricia Lauber (1996)	Lauber (1996)
И.	•	The Black Stallion by Walter Farley (1941)	A History of US by Joy Hakim (2005)	
}	٠	"Zlateh the Goat" by Isaac Bashevis Singer (1984)	Horses by Seymour Simon (2006)	
	•	Where the Mountain Meets the Moon by Grace Lin (2009)	Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea by Sy Montgomery (2006)	e Cloud Forest of New Guinea by

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a wide range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of K–5 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes in depth. On the next page is an example of progressions of texts building knowledge across grade levels. *Children at the kindergarten and grade 1 levels should be expected to read texts independently that have been specifically written to correlate to their reading level and their word knowledge. Many of the titles listed above are meant to supplement carefully structured independent reading with books to read along with a teacher or that are read aloud to students to build knowledge and cultivate a joy in reading.

<u>HOW TO BUILD KNOWLEDGE SYSTEMATICALLY IN ENGLISH LANGUAGE ARTS K-5</u> STAYING ON TOPIC WITHIN A GRADE AND ACROSS GRADES

orm one big picture. At a curricular or instructional level, texts—within and across grade levels—need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently and reflect on them in writing. However, children in the early grades (particularly K–2) should participate in rich, structured conversations with an adult in response to the written texts that are read aloud, orally Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the Standards.

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English anguage arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-alouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

Exemplar Texts on a Topic Across Grades	¥	÷	2-3	4-5
The Human Body Students can begin learning	The five senses and associated body parts • My Five Senses by Aliki (1989)	Introduction to the systems of the human body and associated body parts	Digestive and excretory systems • What Happens to a Hamburger by Paul Showers (1985)	Circulatory system • The Heart by Seymour Simon (2006)
about the human body starting in kindergarten and then review and extend	Hearing by Maria Rius (1985) Sight by Maria Dille (1995)	 Under Your Skin: Your Amazing Body by Mick Manning (2007) 	 The Digestive System by Christine Taylor-Butler (2008) 	 The Heart and Circulation by Carol Ballard (2005)
their learning during each subsequent grade.	Smell by Maria Rius (1985)	 Me and My Amazing Body by Joan Sweeney (1999) 	The Digestive System by Rebecca L. Johnson (2006)	 The Circulatory System by Kristin Petrie (2007)
	 Taste by Maria Rius (1985) Touch by Maria Rius (1985) 	 The Human Body by Gallimard Jeunesse (2007) 	 The Digestive System by Kristin Petrie (2007) 	 The Amazing Circulatory System by John Burstein (2009)
	Taking care of your body:	 The Busy Body Book by Lizzy Rockwell (2008) 	Taking care of your body:	Respiratory system
	Overview (nyglene, diet, exercise, rest)	First Encyclopedia of the Human Body by Fiona Chandler	 Good Enough to Eat by Lizzy 	 The Lungs by Seymour Simon (2007)
	 My Amazing Body: A First Look at Health & Fitness by Pat Thomas (2001) 	(2004) Taking care of your body: Germs.	Rockwell (1999) Showdown at the Food Pyramid	 The Respiratory System by Susan Glass (2004)
	Get Up and Go! by Nancy Carlson (2008)	diseases, and preventing illness Germs Make Me Sick by Marilyn	by Rex Barron (2004) Muscular, skeletal, and nervous	 The Respiratory System by Kristin Petrie (2007)
	Go Wash Up by Doering Tourville (2008)	Berger (1995) Tiny Life on Your Body by	systems The Mighty Muscular and	 The Remarkable Respiratory System by John Burstein (2009)
	Sleep by Paul Showers (1997)	Christine Taylor-Butler (2005)	Skeletal Systems Crabtree Publishing (2009)	Endocrine system
	 Fuel the Body by Doering Tourville (2008) 	 Germ Stories by Arthur Kornberg (2007) 	Muscles by Seymour Simon (1998)	 The Endocrine System by Rebecca Olien (2006)
		 All About Scabs by Genichiro Yagu (1998) 	Bones by Seymour Simon (1998)	• The Exciting Endocrine System by John Burstein (2009)
			 The Astounding Nervous System Crabtree Publishing (2009) 	
			 The Nervous System by Joelle Riley (2004) 	

INTRODUCTION

Toward greater focus and coherence

Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics. Mathematical process goals should be integrated in these content areas.

—National Research Council, 2009

The composite standards [of Hong Kong, Korea and Singapore] have a number of features that can inform an international benchmarking process for the development of K–6 mathematics standards in the U.S. First, the composite standards concentrate the early learning of mathematics on the number, measurement, and geometry strands with less emphasis on data analysis and little exposure to algebra. The Hong Kong standards for grades 1–3 devote approximately half the targeted time to numbers and almost all the time remaining to geometry and measurement.

— Ginsburg, Leinwand and Decker, 2009

Because the mathematics concepts in [U.S.] textbooks are often weak, the presentation becomes more mechanical than is ideal. We looked at both traditional and non-traditional textbooks used in the US and found this conceptual weakness in both.

— Ginsburg et al., 2005

There are many ways to organize curricula. The challenge, now rarely met, is to avoid those that distort mathematics and turn off students.

— Steen, 2007

For over a decade, research studies of mathematics education in high-performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on the promise of common standards, the standards must address the problem of a curriculum that is "a mile wide and an inch deep." These Standards are a substantial answer to that challenge.

It is important to recognize that "fewer standards" are no substitute for focused standards. Achieving "fewer standards" would be easy to do by resorting to broad, general statements. Instead, these Standards aim for clarity and specificity.

Assessing the coherence of a set of standards is more difficult than assessing their focus. William Schmidt and Richard Houang (2002) have said that content standards and curricula are coherent if they are:

articulated over time as a sequence of topics and performances that are logical and reflect, where appropriate, the sequential or hierarchical nature of the disciplinary content from which the subject matter derives. That is, what and how students are taught should reflect not only the topics that fall within a certain academic discipline, **but also the key ideas** that determine how knowledge is organized and generated within that discipline. This implies that "to be coherent," a set of content standards must evolve from particulars (e.g., the meaning and operations of whole numbers, including simple math facts and routine computational procedures associated with whole numbers and fractions) to deeper structures inherent in the discipline. These deeper structures then serve as a means for connecting the particulars (such as an understanding of the rational number system and its properties). (emphasis added)

These Standards endeavor to follow such a design, not only by stressing conceptual understanding of key ideas, but also by continually returning to organizing principles such as place value or the laws of arithmetic to structure those ideas.

In addition, the "sequence of topics and performances" that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing "sequenced obstacles and challenges for students...absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise." In recognition of this, the development of these Standards began with research-based learning progressions detailing what is known today about how students' mathematical knowledge, skill, and understanding develop over time.

MATHEMATICAL PRACTICE

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report Adding It Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

1 Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2 Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3 Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4 Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5 Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6 Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8 Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation (y - 2)/(x - 1) = 3. Noticing the regularity in the way terms cancel when expanding (x - 1)(x + 1), (x - 1)(x + 2 + x + 1), and (x - 1)(x + 2 + x + 1) might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as (a + b)(x + y) and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding (a + b + c)(x + y). Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participation of students with special education needs. For example, for students with disabilities reading should allow for use of Braille, screen reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

K	1	2	3	4	5	6	7	8	HS
Counting & Cardinality									
	Number	& Operati	ions Base T	en			roportional onships		Number
			Num	ber & Oper Fractions		The	Number Sy:	stem	& Quantity
Expressions Operations & Equations							Algebra		
& Algebraic Thinking							Functions	Functions	
Geometry							Geometry		
Measurement & Data Statistics & Probability							Statistics & Probability		

Findell & Foughty (2011)

College and Career-Readiness through the Common Core State Standards for Mathematics

GRADE 2 - OVERVIEW

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

- 1. Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).
- 2. Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.
- 3. Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.
- 4. Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

OPERATIONS & ALGEBRAIC THINKING

REPRESENT AND SOLVE PROBLEMS INVOLVING MULTIPLICATION AND DIVISION.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹

ADD AND SUBTRACT WITHIN 20.

2. Fluently add and subtract within 20 using mental strategies.² By end of Grade 2, know from memory all sums of two one-digit numbers.

WORK WITH EQUAL GROUPS OF OBJECTS TO GAIN FOUNDATIONS FOR MULTIPLICATION.

- 3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
- 4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

NUMBER & OPERATIONS IN BASE TEN

UNDERSTAND PLACE VALUE

- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706
 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 - a. 100 can be thought of as a bundle of ten tens called a "hundred."
 - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
- 2. Count within 1000; skip-count by 2s, 5s, 10s, and 100s.
- 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and <
 symbols to record the results of comparisons.

USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT.

- 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- 8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
- 9. Explain why addition and subtraction strategies work, using place value and the properties of operations.³

¹See Glossary, Table 1.

²See standard 1.OA.6 for a list of mental strategies.

³Explanations may be supported by drawings or objects.

MEASUREMENT & DATA

MEASURE AND ESTIMATE LENGTHS IN STANDARD UNITS.

- 1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- 3. Estimate lengths using units of inches, feet, centimeters, and meters.
- 4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

RELATE ADDITION AND SUBTRACTION TO LENGTH.

- 5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
- 6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

WORK WITH TIME AND MONEY.

- 7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. Know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).
- 8. Solve word problems involving combinations of dollar bills, quarters, dimes, nickels, and pennies, using \$ and \$ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents doyou have?

REPRESENT AND INTERPRET DATA.

- 9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
- 10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems¹ using information presented in a bar graph.

GEOMETRY

REASON WITH SHAPES AND THEIR ATTRIBUTES.

- 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.² Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- 2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- 3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

¹See Glossary, Table 1.

²Sizes are compared directly or visually, not compared by measuring.