



California's  
**COMMON CORE**  
Content Standards  
Third Grade ELA

California's  
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Content Standards for  
ELA and Mathematics  
Third Grade

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# READING STANDARDS

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

#### 2ND

1. Ask and answer such questions as who, what,where, when, why, and how to demonstrate understanding of key details in a text.

2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.

3. Describe how characters in a story respond to major events and challenges.

#### 3RD

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

2. 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.

#### 4TH

1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.

3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

### Craft and Structure

4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

5. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

6. Distinguish their own point of view from that of the narrator or those of the characters.

4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).

5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

# READING STANDARDS

2ND	3RD	4TH
<b>Integration of Knowledge and Ideas</b>		
<p>7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.</p>	<p><b>7. 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).</b></p>	<p>7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.</p>
<p>8. (Not applicable to literature)</p>	<p><b>8. (Not applicable to literature)</b></p>	<p>8. (Not applicable to literature)</p>
<p>9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.</p>	<p><b>9. 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).</b></p>	<p>9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.</p>
<b>Range of Reading Level &amp; Level of Text Complexity</b>		
<p>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.</p>	<p><b>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.</b></p>	<p>10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>

# READING STANDARDS

## INFORMATIONAL TEXT

### Key Ideas and Details

#### 2<sup>ND</sup>

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

2. 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<sup>RD</sup>

1. 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.**

3. 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.

#### 4<sup>TH</sup>

1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.

3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

### Craft and Structure

4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.

5. 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.

6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

4. Determine the meaning of **general academic and domain-specific words and phrases** in a text relevant to a grade 3 topic or subject area.

5. 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.**

4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

### Integration of Knowledge and Ideas

7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

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).

7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

# READING STANDARDS

## 2<sup>ND</sup>

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<sup>RD</sup>

8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

9. Compare and contrast the most important points and key details presented in two texts on the same topic.

## 4<sup>TH</sup>

8. Explain how an author uses reasons and evidence to support particular points in a text.

9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

## Range of Reading & Level of text complexity

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.

10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

# READING STANDARDS

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

#### 2ND

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

#### 3RD

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

#### 4TH

3. Know and apply grade-level phonics and word analysis skills in decoding words.
- Use combined knowledge of all lettersound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

### Fluency

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

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

4. Read with sufficient accuracy and fluency to support comprehension.
- Read on-level text with purpose and understanding.
  - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-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

### 2ND

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.

2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

### 3RD

1. Write opinion pieces on topics or texts, supporting a point of view with reasons.

- Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- Provide reasons that support the opinion.
- Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- Provide a concluding statement or section.

2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
- Develop the topic with facts, definitions, and details.
- Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
- Provide a concluding statement or section.

### 4TH

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer’s purpose.
- Provide reasons that are supported by facts and details.
- Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
- Provide a concluding statement or section related to the opinion presented.

2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
- Use precise language and domain-specific vocabulary to inform about or explain the topic.
- Provide a concluding statement or section related to the information or explanation presented.



# WRITING STANDARDS

2ND

3RD

4TH

## Text Types & Purposes (continued)

3. Write narratives in which they recount a well-elaborated 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.

3. 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.

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

- a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.
- c. Use a variety of transitional words and phrases to manage the sequence of events.
- d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
- e. Provide a conclusion that follows from the narrated experiences or events.

## Production & Distribution of Writing

4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

4. Produce clear and coherent writing (including multiple-paragraph texts) in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3 on pages 18-19 and 20-21.)

5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4.)

6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

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.

6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

# WRITING STANDARDS

2<sup>ND</sup>

3<sup>RD</sup>

4<sup>TH</sup>

## Research to Build & Present Knowledge

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).

7. Conduct short research projects that build knowledge about a topic.

7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.

8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes, paraphrase, and categorize information, and provide a list of sources.

9. (Begins in grade 4)

9. (Begins in grade 4)

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").

b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").

## Range of Writing

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.

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# 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.

2<sup>ND</sup>

3<sup>RD</sup>

4<sup>TH</sup>

## Comprehension & Collaboration

1. 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).
  - b. 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 four-step oral directions.

3. 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 time about 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.

2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 4 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 and carry out assigned roles.
  - c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
  - d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

3. Identify the reasons and evidence a speaker or media source provides to support particular points.

# SPEAKING & LISTENING

2ND

3RD

4TH

## Presentation of Knowledge & Ideas

4. 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.

5. 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.

6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)

4. 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.

5. 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. (See grade 3 Language standards 1 and 3 on for specific expectations.)

4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

- a. Plan and deliver a narrative presentation that: relates ideas, observations, or recollections; provides a clear context; and includes clear insight into why the event or experience is memorable.

5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards for specific expectations.)

# LANGUAGE STANDARDS

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 (\*).

## 2ND

## 3RD

## 4TH

### Conventions of Standard English

1. 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).

1. 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.
  - b. 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 pronoun-antecedent 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.

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - a. Write fluidly and legibly in cursive or joined italics.
  - b. Use interrogative, relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why).
  - c. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses.
  - d. Use modal auxiliaries (e.g., can, may, must) to convey various conditions.
  - e. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag).
  - f. Form and use prepositional phrases.
  - g. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.\*
  - h. Correctly use frequently confused words (e.g., to, too, two; there, their).\*

# LANGUAGE STANDARDS

## 2ND

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

## 3RD

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

## 4TH

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Use correct capitalization.
  - Use commas and quotation marks to mark direct speech and quotations from a text.
  - Use a comma before a coordinating conjunction in a compound sentence.
  - Spell grade-appropriate words correctly, consulting references as needed.

## Knowledge of Language

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Compare formal and informal uses of English.

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

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Choose words and phrases to convey ideas precisely.\*
  - Choose punctuation for effect.\*
  - Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

# LANGUAGE STANDARDS

2ND

3RD

4TH

## Vocabulary Acquisition and Use

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).
- e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases in all content areas.

5. 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).

6. Use words and phrases acquired through conversations, 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*).

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 in all content areas.

5. 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).

6. Acquire and use accurately grade-appropriate 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).

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

- a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
- b. Use common, grade appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).
- c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases and to identify alternate word choices in all content areas.

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

- a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.
- b. Recognize and explain the meaning of common idioms, adages, and proverbs.
- c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).



# 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.

Standard	Grade(s)							
	3	4	5	6	7	8	9-10	11-12
<b>L.3.1f.</b> Ensure subject-verb and pronoun-antecedent agreement.								
<b>L.3.3a.</b> Choose words and phrases for effect.								
<b>L.4.1f.</b> Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
<b>L.4.1g.</b> Correctly use frequently confused words (e.g., <i>to/too/two</i> ; <i>there/their</i> ).								
<b>L.4.3a.</b> Choose words and phrases to convey ideas precisely.*								
<b>L.4.3b.</b> Choose punctuation for effect.								
<b>L.5.1d.</b> Recognize and correct inappropriate shifts in verb tense.								
<b>L.5.2a.</b> Use punctuation to separate items in a series.†								
<b>L.6.1c.</b> Recognize and correct inappropriate shifts in pronoun number and person.								
<b>L.6.1d.</b> Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
<b>L.6.1e.</b> Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
<b>L.6.2a.</b> Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
<b>L.6.3a.</b> Vary sentence patterns for meaning, reader/listener interest, and style.‡								
<b>L.6.3b.</b> Maintain consistency in style and tone.								
<b>L.7.1c.</b> Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
<b>L.7.3a.</b> Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
<b>L.8.1d.</b> Recognize and correct inappropriate shifts in verb voice and mood.								
<b>L.9-10.1a.</b> Use parallel structure.								

\*Subsumed by L.7.3a

†Subsumed by L.9-10.1a

‡Subsumed by L.11-12.3a



## 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

**Matching reader to text and task:** Reader variables (such as motivation, knowledge, and experiences) 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	
<b>Stories</b>	<b>Drama</b>	<b>Poetry</b>	<b>Literary Nonfiction</b>
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
K*	<ul style="list-style-type: none"> <li>• <i>Over in the Meadow</i> by John Langstaff (traditional) (c1800)*</li> <li>• <i>A Boy, a Dog, and a Frog</i> by Mercer Mayer (1967)</li> <li>• <i>Pancakes for Breakfast</i> by Tomie DePaola (1978)</li> <li>• <i>A Story, A Story</i> by Gail E. Haley (1970)*</li> <li>• <i>Kitten's First Full Moon</i> by Kevin Henkes (2004)*</li> <li>• "Mix a Pancake" by Christina G. Rossetti (1893)**</li> <li>• <i>Mr. Popper's Penguins</i> by Richard Atwater (1938)*</li> <li>• <i>Little Bear</i> by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)**</li> <li>• <i>Frog and Toad Together</i> by Arnold Lobel (1971)**</li> <li>• <i>Hil! Fly Guy</i> by Tedd Arnold (2006)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>My Five Senses</i> by Ailiki (1962)**</li> <li>• <i>Truck</i> by Donald Crews (1980)</li> <li>• <i>I Read Signs</i> by Tana Hoban (1987)</li> <li>• <i>What Do You Do With a Tail Like This?</i> by Steve Jenkins and Robin Page (2003)*</li> <li>• <i>Amazing Whales!</i> by Sarah L. Thomson (2005)*</li> <li>• <i>A Tree Is a Plant</i> by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)**</li> <li>• <i>Starfish</i> by Edith Thacher Hurd (1962)</li> <li>• <i>Follow the Water from Brook to Ocean</i> by Arthur Dorros (1991)**</li> <li>• <i>From Seed to Pumpkin</i> by Wendy Pfeffer, illustrated by James Graham Hale (2004)*</li> <li>• <i>How People Learned to Fly</i> by Fran Hodgkins and True Kelley (2007)*</li> </ul>
1*	<ul style="list-style-type: none"> <li>• "Who Has Seen the Wind?" by Christina G. Rossetti (1893)</li> <li>• <i>Charlotte's Web</i> by E. B. White (1952)*</li> <li>• <i>Sarah, Plain and Tall</i> by Patricia MacLachlan (1985)</li> <li>• <i>Tops and Bottoms</i> by Janet Stevens (1995)</li> <li>• <i>Poppleton in Winter</i> by Cynthia Rylant, illustrated by Mark Teague (2001)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>A Medieval Feast</i> by Ailiki (1983)</li> <li>• <i>From Seed to Plant</i> by Gail Gibbons (1991)</li> <li>• <i>The Story of Ruby Bridges</i> by Robert Coles (1995)*</li> <li>• <i>A Drop of Water: A Book of Science and Wonder</i> by Walter Wick (1997)</li> <li>• <i>Moonshot: The Flight of Apollo 11</i> by Brian Floca (2009)</li> </ul>
2-3	<ul style="list-style-type: none"> <li>• <i>Alice's Adventures in Wonderland</i> by Lewis Carroll (1865)</li> <li>• "Casey at the Bat" by Ernest Lawrence Thayer (1888)</li> <li>• <i>The Black Stallion</i> by Walter Farley (1941)</li> <li>• "Zlateh the Goat" by Isaac Bashevis Singer (1984)</li> <li>• <i>Where the Mountain Meets the Moon</i> by Grace Lin (2009)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Discovering Mars: The Amazing Story of the Red Planet</i> by Melvin Berger (1992)</li> <li>• <i>Hurricanes: Earth's Mightiest Storms</i> by Patricia Lauber (1996)</li> <li>• <i>A History of US</i> by Joy Hakim (2005)</li> <li>• <i>Horses</i> by Seymour Simon (2006)</li> <li>• <i>Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea</i> by Sy Montgomery (2006)</li> </ul>
4-5	<ul style="list-style-type: none"> <li>• <i>Alice's Adventures in Wonderland</i> by Lewis Carroll (1865)</li> <li>• "Casey at the Bat" by Ernest Lawrence Thayer (1888)</li> <li>• <i>The Black Stallion</i> by Walter Farley (1941)</li> <li>• "Zlateh the Goat" by Isaac Bashevis Singer (1984)</li> <li>• <i>Where the Mountain Meets the Moon</i> by Grace Lin (2009)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Discovering Mars: The Amazing Story of the Red Planet</i> by Melvin Berger (1992)</li> <li>• <i>Hurricanes: Earth's Mightiest Storms</i> by Patricia Lauber (1996)</li> <li>• <i>A History of US</i> by Joy Hakim (2005)</li> <li>• <i>Horses</i> by Seymour Simon (2006)</li> <li>• <i>Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea</i> by Sy Montgomery (2006)</li> </ul>

**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 that generate knowledge and allow students to study those 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 aloud with a teacher or that are read aloud to students to build knowledge and cultivate a joy in reading.

# STAYING ON TOPIC WITHIN A GRADE AND ACROSS GRADES: HOW TO BUILD KNOWLEDGE SYSTEMATICALLY IN ENGLISH LANGUAGE ARTS K-5

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form 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 would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels 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 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 language 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	K	1	2–3	4–5
<b>The Human Body</b>  Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.	<p><b>The five senses and associated body parts</b></p> <ul style="list-style-type: none"> <li>• <i>My Five Senses</i> by Ailki (1989)</li> <li>• <i>Hearing</i> by Maria Rius (1985)</li> <li>• <i>Sight</i> by Maria Rius (1985)</li> <li>• <i>Smell</i> by Maria Rius (1985)</li> <li>• <i>Taste</i> by Maria Rius (1985)</li> <li>• <i>Touch</i> by Maria Rius (1985)</li> </ul> <p><b>Taking care of your body: Overview (hygiene, diet, exercise, rest)</b></p> <ul style="list-style-type: none"> <li>• <i>My Amazing Body: A First Look at Health &amp; Fitness</i> by Pat Thomas (2001)</li> <li>• <i>Get Up and Go!</i> by Nancy Carlson (2008)</li> <li>• <i>Go Wash Up</i> by Doering Tourville (2008)</li> <li>• <i>Sleep</i> by Paul Showers (1997)</li> <li>• <i>Fuel the Body</i> by Doering Tourville (2008)</li> </ul>	<p><b>Introduction to the systems of the human body and associated body parts</b></p> <ul style="list-style-type: none"> <li>• <i>Under Your Skin: Your Amazing Body</i> by Mick Manning (2007)</li> <li>• <i>Me and My Amazing Body</i> by Joan Sweeney (1999)</li> <li>• <i>The Human Body</i> by Gallimard Jeunesse (2007)</li> <li>• <i>The Busy Body Book</i> by Lizzy Rockwell (2008)</li> <li>• <i>First Encyclopedia of the Human Body</i> by Fiona Chandler (2004)</li> </ul> <p><b>Taking care of your body: Germs, diseases, and preventing illness</b></p> <ul style="list-style-type: none"> <li>• <i>Germs Make Me Sick</i> by Mariilyn Berger (1995)</li> <li>• <i>Tiny Life on Your Body</i> by Christine Taylor-Butler (2005)</li> <li>• <i>Germ Stories</i> by Arthur Kornberg (2007)</li> <li>• <i>All About Scabs</i> by Genichiro Yagu (1998)</li> </ul>	<p><b>Digestive and excretory systems</b></p> <ul style="list-style-type: none"> <li>• <i>What Happens to a Hamburger</i> by Paul Showers (1985)</li> <li>• <i>The Digestive System</i> by Christine Taylor-Butler (2008)</li> <li>• <i>The Digestive System</i> by Rebecca L. Johnson (2006)</li> <li>• <i>The Digestive System</i> by Kristin Petrie (2007)</li> </ul> <p><b>Taking care of your body: Healthy eating and nutrition</b></p> <ul style="list-style-type: none"> <li>• <i>Good Enough to Eat</i> by Lizzy Rockwell (1999)</li> <li>• <i>Showdown at the Food Pyramid</i> by Rex Barron (2004)</li> </ul> <p><b>Muscular, skeletal, and nervous systems</b></p> <ul style="list-style-type: none"> <li>• <i>The Mighty Muscular and Skeletal Systems</i> Crabtree Publishing (2009)</li> <li>• <i>Muscles</i> by Seymour Simon (1998)</li> <li>• <i>Bones</i> by Seymour Simon (1998)</li> <li>• <i>The Astounding Nervous System</i> Crabtree Publishing (2009)</li> <li>• <i>The Nervous System</i> by Joelle Riley (2004)</li> </ul>	<p><b>Circulatory system</b></p> <ul style="list-style-type: none"> <li>• <i>The Heart</i> by Seymour Simon (2006)</li> <li>• <i>The Heart and Circulation</i> by Carol Ballard (2005)</li> <li>• <i>The Circulatory System</i> by Kristin Petrie (2007)</li> <li>• <i>The Amazing Circulatory System</i> by John Burstein (2009)</li> </ul> <p><b>Respiratory system</b></p> <ul style="list-style-type: none"> <li>• <i>The Lungs</i> by Seymour Simon (2007)</li> <li>• <i>The Respiratory System</i> by Susan Glass (2004)</li> <li>• <i>The Respiratory System</i> by Kristin Petrie (2007)</li> <li>• <i>The Remarkable Respiratory System</i> by John Burstein (2009)</li> </ul> <p><b>Endocrine system</b></p> <ul style="list-style-type: none"> <li>• <i>The Endocrine System</i> by Rebecca Olien (2006)</li> <li>• <i>The Exciting Endocrine System</i> by John Burstein (2009)</li> </ul>

# MATHEMATICS STANDARDS

## 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.



# MATHEMATICS STANDARDS

## 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 & Operations Base Ten						Ratios & Proportional Relationships			Number & Quantity
	Number & Operations Fractions			The Number System					
Operations & Algebraic Thinking						Expressions & Equations			Algebra
							Functions		
Geometry									Geometry
Measurement & Data						Statistics & Probability			Statistics & Probability

Findell & Foughty (2011)

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

# MATHEMATICS STANDARDS

## Grade 3 - Overview

**In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.**

1. Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.
2. Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example,  $\frac{1}{2}$  of the paint in a small bucket could be less paint than  $\frac{1}{3}$  of the paint in a larger bucket, but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.
3. Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.
4. Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

# MATHEMATICS STANDARDS

## Operations and Algebraic Thinking

### REPRESENT AND SOLVE PROBLEMS INVOLVING MULTIPLICATION AND DIVISION.

1. Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each, or 7 groups of 5 objects each. For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .
2. Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>1</sup>
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = ? \div 3$ ,  $6 \times 6 = ?$ .
5. Apply properties of operations as strategies to multiply and divide.<sup>2</sup> Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (Commutative property of multiplication.)  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (Distributive property.)
6. Understand division as an unknown-factor problem. For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.
7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.<sup>3</sup>
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

# MATHEMATICS STANDARDS

## Number and Operations in Base Ten

USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO PERFORM MULTI-DIGIT ARITHMETIC.<sup>4</sup>

1. Use place value understanding to round whole numbers to the nearest 10 or 100. 1.1 Understand that the four digits of a four-digit number represent amounts of thousands, hundreds, tens, and ones; e.g.  $3,706 = 3000 + 700 + 6 = 3$  thousands, 7 hundreds, 0 tens, and 6 ones.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

## Number and Operations—Fractions<sup>5</sup>

DEVELOP UNDERSTANDING OF FRACTIONS AS NUMBERS.

1. Understand a fraction  $1/b$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ .
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
  - a. Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.
  - b. Represent a fraction  $a/b$  on a number line diagram by marking off a lengths  $1/b$  from 0. Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
  - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. Recognize that equivalencies are only valid when the two fractions refer to the same whole.
  - b. Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model.
  - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.
  - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.
  - e. Know and understand that 25 cents is a  $1/4$  of a dollar, 50 cents is  $1/2$  of a dollar, and 75 cents is  $3/4$  of a dollar.



# MATHEMATICS STANDARDS

## Measurement and Data

SOLVE PROBLEMS INVOLVING MEASUREMENT AND ESTIMATION OF INTERVALS OF TIME, LIQUID VOLUMES, AND MASSES OF OBJECTS.

1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and English Units (oz, lb.), and liters (l).<sup>6</sup> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.<sup>7</sup>
3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
  - a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
  - b. A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units
6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
7. Relate area to the operations of multiplication and addition.
  - a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
  - b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
  - c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
  - d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into nonoverlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

## Geometry

REASON WITH SHAPES AND THEIR ATTRIBUTES.

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as  $\frac{1}{4}$  of the area of the shape.