A Look at...

Second Grade

in California Public Schools

and the
Common Core State Standards

CURRICULUM FRAMEWORKS AND INSTRUCTIONAL RESOURCES DIVISION
INSTRUCTION AND LEARNING SUPPORT BRANCH
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Contents

Second-Grade Curriculum

What will my child learn in second grade?

I've been teaching fifth grade, and this year I've been reassigned to second grade. What does the second-grade curriculum look like?

I'm the principal of a small, private elementary school, and I want to be sure my students are meeting the state's standards. How can I find out what students are expected to learn at each grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance second-grade curriculum?

This chapter is organized by sections for each subject, describing what students should know and be able to do by the end of second grade. Each section includes a brief overview of what the student should have learned before entering second grade, followed by a description of the second-grade standards. Each subject concludes with a list of the second-grade standards for that content area. The English language arts and mathematics sections include the new Common Core State Standards (CCSS), with California additions.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at http://www.cde.ca.gov/ci/cr/cf/allfwks.asp.

English Language Arts

Overview

For students in second grade, instruction focuses on developing literacy and proficiency in language arts with the goal that all students become lifelong readers, competent writers, and effective communicators. Literacy is critical to academic success and is the key to becoming an independent learner in all other disciplines. Students need to be competent in reading and English language arts to be able to obtain information in all content areas and communicate to others what they have learned. By the end of second grade, students should be able to read with accuracy and fluency to support their comprehension of literature and informational text. Their oral reading skills should be developed to the point that they can read grade-level text orally with expression.

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Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus more on informational text, text-analysis skills for reading comprehension, opinion pieces, informational/explanatory compositions, and collaborative conversations about grade-level texts and topics.

This section provides an overview of the new CCSS for second-grade English language arts. It includes a review of the important English language arts skills and concepts from first grade (prerequisite skills) and guidance to ensure success for struggling readers, including English learners. A complete list of the second-grade CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the second-grade CCSS for English language arts, with California additions, can be found at the end of this section. The 1997 California English language arts standards for kindergarten through grade twelve are located on the CDE Content Standards Web page at http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf.

What Second-Grade Students Should Know

In first grade, students learned skills that enable them to read and write with a degree of independence. They should be able to read common sight words and produce the sounds for consonants, consonant blends, and long and short vowels. Students who mastered the first-grade standards have the ability to decode increasingly complex words. They can read first-grade texts accurately and with purpose and understanding. They have read or had

read aloud to them a variety of literature and informational texts and know how to ask clarifying questions about these texts. In addition, students have expanded their reading-comprehension strategies for both narrative and informational text. They are able to retell the main idea of a narrative or expository text and respond to clarifying questions in expository text.

In first grade, students learned new academic and content-specific vocabulary by using context clues, identifying familiar root words in words with affixes, reading and being read aloud to, and in-depth conversations about first grade texts and topics. Students learned to write simple compositions in which they applied their knowledge of language conventions, including correctly using singular and plural nouns, capitalizing the first word of a sentence, and using the appropriate ending punctuation to complete sentences.

What Students Learn in Second Grade

In second grade, fluency, comprehension, and analysis are the focus of reading instruction. Students apply their knowledge of the basic features of reading to achieve fluency in oral and silent reading. Students ask and answer clarifying questions about text (e.g., *who*, *what*, *why*), use the features of text (e.g., headings, bold type) to locate information in expository text, and consider the author's purpose as they analyze informational text. Students use these strategies to better comprehend their readings in all content areas. In second grade, students learn more sophisticated strategies to analyze literature. For example, they compare and contrast different versions of the same story from different cultures.

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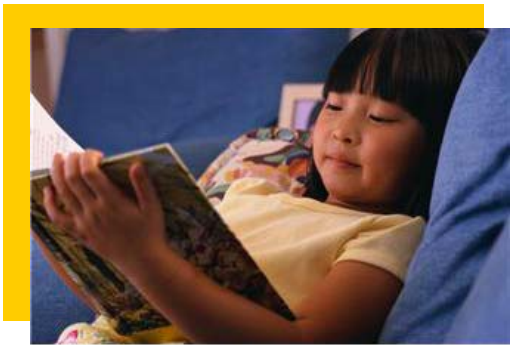
Students write compositions by using correct English conventions. They learn to use reference materials to locate information for their written compositions and oral reports. Their written products become longer, and students pay more attention to the organization of their compositions. Students develop initial skills in editing and revising text at this grade level. Students in second grade learn to give and follow multiple-step directions, provide descriptive details when telling stories or recounting events, and structure their oral presentations in a logical sequence. Students learn new vocabulary and academic language as they read and speak about grade-level texts and topics. They learn to use dictionaries and glossaries to clarify the meaning of words and to check and correct their spelling. They use their knowledge of individual words to predict the meaning of compound words. They also use their knowledge of prefixes to determine the meaning of a new word formed when a prefix is added to a known word.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

In second grade, students read and comprehend a wide variety of significant works of children's literature, including stories and poetry. Both the 1997 California English language arts standards and the CCSS incorporate text-analysis skills and strategies that lead to students' fuller comprehension of the literature they read. Students analyze the elements of narrative text, the characters, plot, and setting. Students learn about rhythm, rhyme, and alliteration and how those techniques add meaning to a story or poem. They compare and contrast elements within and among texts. Students read, comparing and contrasting versions of stories written by different authors or from different cultures.



The text-analysis skills for second-grade students in the CCSS go beyond those in the 1997 California English language arts standards, with emphases on the message or lesson of the text, the differences between a story's characters, and the structure of stories. Students read and recount stories, fables, and folktales from diverse cultures and determine the central message, lesson, or moral. Students learn to perceive and describe how the characters in a story respond to major events and challenges. They recognize the different points of view of characters in a story and how those differences are expressed in dialogue. Students demonstrate this understanding by using different voices for each character when reading dialogue aloud. Students also learn about the overall structure of stories. They understand and can describe how the story is introduced in the beginning and how the action is concluded. This understanding not only helps students to better comprehend stories, it also supports their narrative writing and speaking, both of which call for a conclusion or sense of closure.

Reading Standards for Informational Text

Reading and comprehending informational text are critical for students' achievement in all content areas. Both the 1997 California English language arts standards and the CCSS reflect the importance of comprehension and analysis skills and strategies for students' academic success. Students ask clarifying questions (e.g., *who*, *why*, *how*) about the essential elements or key details of informational text. They learn to use text features, such as headings, to locate information or key facts in text. They learn how to identify the main purpose of the text, including what the author wants to explain or describe, and then use their knowledge of the author's purpose to comprehend the text. Students learn to interpret information from diagrams, charts, and graphs.

The CCSS support a deeper analysis of informational text. Students learn to identify not only the main topic of a multiparagraph text, but also the focus of each paragraph in the text. Building on this identification of key ideas, students learn to recognize, and later describe, how the author supports specific points in the text with reasons. Students also compare and contrast the most important points in two texts on the same topic. They learn to recognize and then describe connections between a series of historical events, scientific ideas, or steps in technical procedures in a text. To locate key facts and information, students use not only the features of printed text but also electronic menus and icons in electronic media. By the end of second grade, students read grade-level informational texts and are able to use a variety of text-analysis and comprehension strategies to understand what they read.

Reading Standards in Foundational Skills

The CCSS and the 1997 California English language arts standards maintain word-recognition skills as the focal point, systematically building on skills learned in kindergarten and first grade. Students learn new word-analysis skills that are introduced sequentially and systematically. Students who lack proficiency in the prerequisite skills must be taught those skills before they are presented with more complex words. In second grade, students learn to recognize and distinguish spelling-sound correspondences such as long and short vowels. Students typically make great strides in reading fluency as they apply their newly acquired decoding and word recognition skills. Students read multisyllabic words by breaking the word into syllables and use their knowledge of prefixes and suffixes to determine the word's meaning.

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The 1997 California English language arts standards set expectations for second-grade students to be fluent in silent and oral reading, capable of reading grade-level material aloud accurately in a manner that sounds like natural speech. The CCSS extend these reading-fluency expectations by also requiring students to read with purpose and understanding. Students use context to confirm or self-correct their word recognition and understanding of text by rereading when necessary. In this way, the CCSS emphasize the link between students' fluency and comprehension.

Writing

High-quality literature and informational text serve as models for students' writing and, as such, reinforce the reciprocal relationship between reading, vocabulary development, and writing. Much of what students learn about analyzing the texts they read supports the writing skills they learn and practice in second grade. For example, students apply their knowledge of the structure of the stories they read, how stories begin and end, and how events are sequenced, in order to compose their own stories in a logical sequence. The academic language they learn in discussions about texts (e.g., *evidence, plot, main idea, key details*) provides students with words to use when speaking about their writing. Students use the vocabulary they learn through reading grade-level texts to describe events and characters in their compositions. They write with a command of English conventions appropriate to second grade, which have been modeled in texts they read or heard.

In grade two, the 1997 California English language arts standards and the CCSS for writing differ in several ways. The 1997 California English language arts standards emphasize the stages of the writing process (prewriting, drafting, revising, editing successive versions). Students' writing includes friendly letters and brief narratives that move through a sequence of events and describe the setting, characters, objects, and events in detail. In comparison, the CCSS call for students to write opinion pieces and informative/explanatory texts in addition to writing narratives and are explicit about the expected quality of students' compositions. Students learn to write opinion pieces that introduce a topic, state an opinion, supply reasons to support the opinion, use linking words to connect their opinion and reasons, and provide a concluding statement. In their informative/explanatory texts, students learn to use facts and definitions to develop their points. Students describe thoughts and feelings, in addition to events, and use words to signal event order in their narratives. The CCSS emphasize writing in different time frames (over several days, at a single sitting) and writing for specific tasks and purposes, including content-specific tasks (e.g., lab and history reports). Students also learn to conduct shared research and writing projects and to use a variety of digital tools to produce and publish writing.

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Speaking and Listening

Students' proficiency in speaking and listening expands in second grade. Students are responsible for comprehending larger amounts of information presented orally (e.g., three- to four-step instructions) and for communicating their ideas with increased attention to detail and substance (e.g., reporting on an event with supportive facts and descriptive details). Students practice the strategy of organizing both narrative and expository texts chronologically. They ask questions for clarification, additional information, or further explanation. With practice, they learn to speak with appropriate volume and in coherent, complete sentences.

The 1997 California English language arts standards focus on students giving individual oral presentations, including recounting experiences, telling stories, or reporting on a topic with facts and details drawn from several sources of information. The CCSS bring two important additions to that focus: collaborative conversations and audio recordings. Students participate in collaborative conversations about grade-level texts and topics, doing so with peers and adults in diverse groups of variable sizes. They follow agreed-upon rules and build on others' talk by linking their comments to the remarks of others. In these conversations, students learn and practice communication skills. In addition, collaborative conversations provide students with opportunities to use academic language from other subjects and new vocabulary learned through their reading. In second grade, students begin to use electronic media to record their speaking tasks. Students create audio recordings of their presentations of stories or poems. When students listen to the recordings of their own

presentations, they can evaluate the quality of their presentations and use that information to improve their speaking skills.

Language

In second grade, students are expected to write and speak with a command of many of the conventions of English. Although students produce some writing electronically, they primarily create readable documents with legible writing. They learn to identify and correctly use parts of speech (e.g., nouns, verbs, and pronouns) in writing and speaking. They learn more rules for capitalization, comma use, and spelling, though the specific rules they learn vary between the 1997 California English language arts standards and the CCSS.

Under the CCSS, students learn to use collective nouns, frequently occurring irregular plural nouns (e.g., *feet, mice*), and reflexive pronouns (e.g., *myself, ourselves*). They learn to form and use the past tense of commonly used irregular verbs, and they learn to correctly use adjectives and adverbs. They apply rules for capitalizing holidays, product names, and geographic names. Students learn to use apostrophes correctly to form contractions and possessives. Their knowledge of spelling patterns allows them to generalize when writing new words, but they also learn to use reference materials, including beginning dictionaries, to check and correct their spelling.

Second-graders compare formal and informal uses of language. As students have learned language conventions and academic vocabulary, they may have realized that the language they use in school is different from the language they use on the playground and at home, or from what they hear on television. Now they learn the terms "formal" and "informal" and when it is appropriate to use formal or informal language (sometimes referred to as code switching).

Vocabulary development is an ongoing task for students. Throughout the school year, grade-level texts and topics introduce students to new words or alternate meanings of known words in all subject areas. Writing activities and speaking tasks, especially collaborative conversations, provide students with opportunities to use newly acquired vocabulary and academic language.

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover basic strategies for determining the meaning of words. Students learn to use their knowledge of the meanings of prefixes and suffixes to determine the meaning of new words formed by them. They also learn to predict the meaning of compound words by using their knowledge of the meanings of the individual words that form them.

The CCSS present two additional strategies for students to learn and practice. Students learn to use sentence-level context as a clue to the meaning of a word. They also use glossaries and beginning dictionaries, both digital and print, to determine or clarify the meaning of words in all subject areas. In addition, the CCSS emphasize the richness of language—in particular, word relationships and nuances in word meanings. Students identify real-life connections between words and their use (e.g., describe animals that are *furry* or *scaly*). Students also learn to distinguish shades of meaning among closely related verbs and adjectives.

Extra Support for Struggling Readers

By the end of second grade, students are expected to read with sufficient accuracy and fluency to support comprehension. Students who are not proficient in phonics and word-recognition skills are likely to experience

academic difficulties. Early screening can identify specific areas of instructional need that can be addressed in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they become proficient in second-grade reading skills. Instructional support for students should include:

- flexible grouping for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- explicit phonics instruction of vowel patterns by teaching the patterns in isolation, then in words and controlled text, and finally in regular trade books
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing. Students who enter second grade with little prior schooling and limited English skills must learn to read and write while learning English.

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English learners should receive intensive instruction in vocabulary development and academic language to succeed in language arts and other content areas at their grade level. English learners encounter difficulty when reading unknown vocabulary in stories. English learners can develop their vocabulary when teachers:

- provide explicit vocabulary instruction that preteaches vocabulary;
- model the pronunciation of words;
- use scaffolds (e.g., summary sheets, charts, visuals);
- encourage students to use the key vocabulary from stories and informational texts in class discussions and writing assignments.

English learners who have limited academic experience and language skills require intensive, systematic instruction in oral and written language that emphasizes the rules of grammar, such as the use of collective

nouns, reflexive pronouns, and adjectives and adverbs. (For a more extensive list of the conventions of grammar, refer to the "Transition to the Common Core State Standards with California Additions: Planning ELD Instruction" chart that follows.) Instruction for English learners includes attention to the phonological, morphological, syntactical, and semantic structures of English. Explicit instruction in vocabulary strategies can teach students to use morphological knowledge of prefixes, suffixes, and root words to determine the meaning of unknown words and increase their reading comprehension.

Texts selected for English learners should be authentic when possible. Simplified texts should be used only with students who need intensive English-language instruction to enable them to catch up with their peers.

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at http://www.cde.ca.gov/sp/el/. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available at the CDE Press Web page at http://www.cde.ca.gov/re/pn/rc/.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions Planning ELD Instruction: Second Grade	
Reading Standards for Literature	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. 6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud. 7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot. 9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures. 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.
Reading Standards for Informational Text	3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. 6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

	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. 10. By the end of the 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.
Reading Standards: Foundational Skills	4. Read with sufficient accuracy and fluency to support comprehension. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
Writing Standards	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. **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.)** 5. 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. 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). 8. Recall information from experiences or gather information from provided sources to answer a question. **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.**
Speaking and Listening Standards	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.
Language Standards	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*). 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*). 2. 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. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Compare formal and informal uses of English.

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

Note: California additions are in bold typeface and underlined.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to the CCSS and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf. These grade-two CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-two 1997 California English language arts content standards is located on the CDE Content Standards Web page at http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf.

Common Core State Standards with California Additions English Language Arts: Grade Two	
Reading Standards for Literature	
Key Ideas and Details	
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.
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. **(See grade 2 Language standards 4–6 for additional expectations.)**
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.
Integration of Knowledge and Ideas	
7.	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)
9.	Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.
Range of Reading and Level of Text Complexity	
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.
Reading Standards for Informational Text	
Key Ideas and Details	
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.
Craft and Structure	
4.	Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. **(See grade 2 Language standards 4–6 for additional expectations.)**
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.
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.
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.
Range of Reading and 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.

Reading Standards: Foundational Skills	
Phonics and Word Recognition	
3.	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 one-syllable 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.
Fluency	
4.	Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. 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.
Writing Standards	
Text Types and Purposes	
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.
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.
Production and 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.)**
5.	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.
Research to Build and 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).
8.	Recall information from experiences or gather information from provided sources to answer a question.
9.	(Begins in grade 4)
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.**
Speaking and Listening Standards	
Comprehension and 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.
Presentation of Knowledge and 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.)
Language Standards	
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*).
2.	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). d. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Knowledge of Language	
3.	Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Compare formal and informal uses of English.
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*). e. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*). f. 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*). a. 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*).

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by "domains" that add grade-level focus, varying slightly by grade. The domains for second grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry. Furthermore, the CCSS do not include "key standards" as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California's second-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for second-grade mathematics, including some highlights of how the second-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of the important mathematical concepts and skills from first grade (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the second-grade CCSS, with California additions, for mathematics can be found at the end of this section. A complete list of the second-grade 1997 California mathematics standards is located on the CDE Content Standards Web page at http://www.cde.ca.gov/be/st/ss/documents/mathstandards.pdf.

What Second-Grade Students Should Know

When entering second grade, students who have met the first-grade CCSS for mathematics have an understanding of whole numbers and place value (within 100). They used objects, drawings, and symbols for the unknown number to solve addition and subtraction word problems (within 20) and are fluent with these operations (within 10). Entering second-graders can add two-digit and one-digit numbers (or a two-digit number and a multiple of ten) within 100 using concrete models or drawings and a variety of strategies (e.g., place value or properties of operations). They learned to use mental math to find 10 more or 10 less than a two-digit number and can subtract multiples of 10 from multiples of 10 (for positive or zero differences and numbers in the range 10–90).

Students have worked with measurement, data, and shapes. They can measure the length of objects by indirect comparison and can organize, represent, and interpret data with up to three categories. Students have an initial understanding of how to describe, extend, and explain ways to get to a next element in simple repeating patterns. They can build two- and three-dimensional shapes and can partition circles and rectangles into fractional pieces and use the related vocabulary (*halves, fourths*, and *quarters*).

What Students Learn in Second Grade

Students in second grade extend their understanding of place value (within 1,000), build fluency in addition and subtraction (within 100), and use simple concepts of multiplication and division. They measure the length of objects by using appropriate tools and identify shapes and their attributes.

Operations and Algebraic Thinking

The 1997 California mathematics standards and the CCSS develop addition and subtraction knowledge and skills at second grade. Students in the second grade use addition and subtraction within 100 to solve one- and two-step word problems with unknowns in all positions. They represent problems by using drawings and equations with a symbol for the unknown number, use mental strategies to add and subtract within 20, and know from memory all sums of two one-digit numbers (a topic in the 1997 California mathematics standards in first grade).

The 1997 California mathematics standards and the CCSS build on the foundations of addition and subtraction to develop the concepts of multiplication and division.

The 1997 California mathematics standards and the CCSS build on the foundations of addition and subtraction to develop the concepts of multiplication and division. Students use repeated addition and counting by multiples to demonstrate multiplication and use repeated subtraction and equal group sharing to demonstrate division.

With full implementation of the CCSS, use of the commutative and associative properties to solve addition and subtraction problems will be introduced in first grade, a second-grade topic in the 1997 California mathematics standards. The memorization of multiplication tables for 2s and 5s, introduced in second grade in the 1997 California standards, will become a third-grade topic.

Number and Operations in Base Ten

In second grade, students' growing understanding of whole numbers is a fundamental topic. Students extend their understanding of place value as they associate the digits of a three-digit number as amounts of hundreds, tens, and ones. They read, write, order, and compare whole numbers and skip count by 2s, 5s, 10s, and 100s within 1,000. Skip-counting to 100 is introduced at first grade in the 1997 California mathematics standards.

In both the 1997 California mathematics standards and the CCSS, students add and subtract within 1,000, although the CCSS specify student fluency in addition and subtraction within 100. A foster a deep understanding of addition and subtraction, students use concrete models or drawings and strategies (based on place value, properties of operations, and the relationship between addition and subtraction) to solve problems. Second-grade students extend their addition skills as they add up to four two-digit numbers and mentally add and subtract 10 or 100 from numbers between 100 and 900 (the CCSS emphasize the use of operations with multiples of 10 to develop understanding of place value) .

Second-graders learn the basics of how to "carry" and "borrow" as addition and subtraction expands to include three-digit numbers (e.g., add or subtract numbers column by column—the ones and ones, tens and tens, and hundreds and hundreds). Students in these early grades often have trouble lining numbers up for addition or subtraction and may need to be reminded that it is essential to line up numbers in the correct position for their place value. Initially, limiting problems to those that require carrying or borrowing across only one column (e.g., 17 + 24, 43 – 7) will make this less confusing to students.

With full implementation of the CCSS, instruction in how to recognize, name, and compare fractions will be addressed in grade three, a second-grade topic in the 1997 California mathematics standards.

Measurement and Data

In second grade, both the 1997 California mathematics standards and CCSS introduce the concept of standard units of measure, but with a few differences. Students estimate and measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes (selection of appropriate tools and units is a grade-three topic in the 1997 California mathematics standards). Second-grade students relate addition and subtraction to length as they represent positive whole numbers (from 0) and whole-number sums and differences within 100 on a number-line diagram. The 1997 California mathematics standards introduce number-line diagrams in fourth grade.

Students model and solve problems involving amounts of money (e.g., If a boy has two dimes and three pennies, how many cents does he have?).

Students model and solve problems involving amounts of money (e.g., If a boy has two dimes and three pennies, how many cents does he have?). Money problems provide second-graders with a practical context for the concepts of addition and subtraction. Students also use picture graphs and bar graphs to represent and interpret data.

With full implementation of the CCSS, the identification of "range" as a feature of data sets will be introduced at sixth grade, a second-grade topic in the 1997 California mathematics standards.

Geometry

Second-grade students extend their understanding of plane and solid geometric shapes as they recognize and describe shapes by various attributes (e.g., the number of angles and equal faces). In the CCSS, second-graders also learn to draw various shapes. Students are introduced early to the concept of area as they partition rectangles into rows and columns (and count the number of squares). They also partition circles and rectangles into two, three, and four equal shares and learn the associated fraction vocabulary (*thirds, a third of*).

With full implementation of the CCSS, the concept of "putting shapes together" will be part of the kindergarten and first-grade curriculum (a second-grade topic in the 1997 California mathematics standards). In addition, recognizing and describing arithmetic patterns will be introduced at third grade (a second-grade topic in the 1997 California mathematics standards).

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics may pose special challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language that are used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first, second, last, before, every, each, more,* and *equal.* Students may be unfamiliar with *sum, difference, solve, length,* and *value.*

- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics–such as *table* or *face* (as in the *face* of a clock).

- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but "ten plus six" in other languages).

- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than, less than, most often, least often*), or position words (*behind, below, in front of, to the right or left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, go to the CDE English Learners Web page at http://www.cde.ca.gov/sp/el/.

Transition to the Common Core State Standards

The following chart highlights a few topics that will continue to be addressed at the same grade level, and some changes to be considered, as California progresses toward full implementation of the second-grade CCSS for mathematics. The chart includes the column heading "Overview of Standards." For the 1997 California mathematics standards, this information is from the "strands" (e.g., Number Sense) and the "overarching" standards (e.g., Number Sense 1.0) at second grade. For the CCSS, the column lists the "domains" (e.g., Operations and Algebraic Thinking) and the "cluster headings" for the standards (e.g., Represent and solve problems involving addition and subtraction) at second grade.

The chart does not, and is not intended to, illustrate all of the differences between the two sets of standards—it is merely a beginning point for more in-depth discussion by teachers and other educators on how instruction may change.

The transition chart is followed by a complete set of the CCSS, with California additions, for second grade and then a table of the CCSS domains for kindergarten through grade six.

A Quick Look: Transition to the Common Core State Standards

Mathematics: Grade Two

Overview of 1997 California Standards*	Overview of the CCSS	Highlights
Algebra and Functions ▪ Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. **Number Sense** ▪ Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000. ▪ Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers. ▪ Students model and solve simple problems involving multiplication and division. ▪ Students understand that fractions and decimals may refer to parts of a set and parts of a whole. ▪ Students model and solve problems by representing, adding, and subtracting	**Operations and Algebraic Thinking** ▪ Represent and solve problems involving addition and subtraction. ▪ Add and subtract within 20. ▪ Work with equal groups of objects to gain foundations for multiplication.	▪ Fluently add and subtract within 20, and memorize all sums of two one-digit numbers **(memorize addition facts to 20 moves from grade one to grade two in the CCSS)**. ▲** ▪ Use repeated addition and counting by multiples to demonstrate multiplication **(memorize multiplication tables for 2s, 5s, and 10s moves from grade two to grade three in the CCSS). ▲** ▪ Use repeated subtraction and equal group sharing to demonstrate division.
	Number and Operations in Base Ten ▪ Understand place value. ▪ Use place value understanding and properties of operations to add and subtract.	▪ Understand a three-digit number represents amounts of hundreds, tens, and ones. ▪ Read, write and count within 1000; skip count by 2s, 5s, 10s, and 100s **(skip-counting by 2s, 5s, and 10s to 100 moves from grade one to grade two in the CCSS). ▲** ▪ Add up to four two-digit numbers **(a new emphasis in the CCSS)**. ▪ Fluently add and subtract within 100; add and subtract within 1,000 (using concrete models, properties of operations, or other strategies).

*The 1997 California mathematics standards will continue to be assessed through the STAR system (in grades 2–11) until at least 2014.

**The ▼ symbol indicates all or part of a concept in the 1997 California mathematics standards has moved to a lower grade in the CCSS; the ▲symbol indicates movement to a higher grade. Listings without a symbol indicate that a concept will continue to be taught at the current grade level.

amounts of money. ▪ Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places.		▪ Mentally add or subtract 10 or 100 for numbers 100–900. ▪ Fractions as numbers **(how to recognize, name and compare fractions moves from grade two to grade three in the CCSS). ▲**
Measurement and Geometry ▪ Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured. ▪ Students identify and describe the attributes of common figures in the plane and of common objects in space. **Statistics, Data Analysis, and Probability** ▪ Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations. ▪ Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways.	**Measurement and Data** ▪ Measure and estimate lengths in standard units. ▪ Relate addition and subtraction to length. ▪ Work with time and money. ▪ Represent and interpret data.	▪ Measure the length of an object using appropriate tools such as rulers and meter sticks **(selection of appropriate tools and units moves from grade three to grade two in the CCSS). ▼** ▪ Use a number line diagram to represent whole numbers as lengths (from 0) and whole-number sums and differences (within 100) **(the introduction of number lines moves from grade four to grade two in the CCSS). ▼** ▪ Represent and compare data by using bar graphs and picture graphs **(moves from grade one to grade two in the CCSS). ▲** ▪ Solve word problems involving the value of money **(introduction to the value of coins moves from grade one to grade two in the CCSS). ▲** ▪ "Range" of data sets **(how to identify the "range" moves from grade two to grade six in the CCSS). ▲**
	Geometry ▪ Reason with shapes and their attributes.	▪ Partition circles and rectangles into two, three and four equal shares, describe the shares using the words *halves, thirds, half of, etc.,* and describe the whole as two halves, three thirds, etc. ▪ Compose shapes **(putting shapes together moves from grade two to kindergarten and grade one in the CCSS).▼**

Mathematical Reasoning ▪ Students make decisions about how to set up a problem. ▪ Students solve problems and justify their reasoning. ▪ Students note connections between one problem and another.		▪ Identify arithmetic patterns **(how to recognize and describe arithmetic patterns moves from grade two to grade three in the CCSS)**.▲
	Standards for Mathematical Practice 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning	▪ The CCSS include Standards for Mathematical Content (different at each grade) and Standards for Mathematical Practice (recurring throughout the grades). ▪ To master the grade level content, students will need to rely on their understanding of a concept and not only on procedures. Standards for Mathematical Practice define how students develop mathematical understanding as they make sense of a problem, reason abstractly, construct arguments, model with mathematics, use tools strategically, attend to precision, and look for structure and repeated reasoning. ▪ Standards for Mathematical Content that set an expectation of "understanding" are potential points of intersections between these standards and the Standards for Mathematical Practice. ▪ Standards for Mathematical Practice are similar to the 1997 California Mathematical Reasoning standards and should be evident throughout future curricula, assessments and professional development.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf. These grade-two CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-two 1997 California mathematics standards is located on the CDE Content Standards Web page at http://www.cde.ca.gov/be/st/ss/documents/mathstandards.pdf.

Common Core State Standards with California Additions Mathematics: Grade Two	
Operations and Algebraic Thinking (2.OA)	
Represent and solve problems involving addition and subtraction.	
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.
5.	**Use repeated addition and counting by multiples to demonstrate multiplication.**
6.	**Use repeated subtraction and equal group sharing to demonstrate division.**
Number and Operations in Base Ten (2.NBT)	

[1] See Glossary, Table 1, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.
[2] See standard 1.OA.6 for a list of mental strategies.

Understand place value.	
1.	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.
4.	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.
7.1	**Use estimation strategies in computation and problem solving with numbers up to 1000.**
7.2	**Make reasonable estimates when adding or subtracting.**
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]
Measurement and Data (2.MD)	
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.
2.	Measure the length of an object twice, using length units of different lengths for the two

[3] Explanations may be supported by drawings or objects.

	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.
3.1	**Verify reasonableness of the estimate when working with measurements (e.g., closest inch). (CA-Standard NS 6.1).**
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 do you 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 problems[4] using information presented in a bar graph.
Geometry (2.G)	
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.[5] 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

[4] See Glossary, Table 1, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSI_Math%20Standards.pdf

[5] Sizes are compared directly or visually, not compared by measuring.

	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.
	Standards for Mathematical Practice 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations – Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

History–Social Science

Overview

Students in the second grade are ready to learn about people who make a difference in their lives and who have made a difference in the past. They develop their own identities as people who have places in their communities. Students start their study of people who make a difference by studying the families and people they know. Students themselves can make a difference by engaging in service-learning to improve their schools or communities. Teachers are encouraged to build understanding of history–social science concepts while furthering beginning literacy skills as outlined in the Common Core State Standards (CCSS). For example, shared readings of narrative and expository texts related to the history–social science standards can reinforce academic content vocabulary, concepts about print, phonemic awareness, the alphabetic principle, analysis of text, and fluency.

What Second-Grade Students Should Know

Students entering second grade have learned about the world they live in and about their responsibilities to other people. In first grade, they began to learn how necessary it is for people and groups to work together and how to resolve problems through cooperation. They examined the geographic and economic aspects of lives in their own neighborhoods and compared them with those of people long ago. First-graders explored the varied backgrounds of American citizens and learned about the symbols, icons, and songs that reflect our common heritage.

What Students Learn in Second Grade

Students develop a beginning sense of history through the study of the family, a topic that is understandable and interesting to them.

Families Today and in the Past

Students develop a beginning sense of history through the study of the family, a topic that is understandable and interesting to them. They are introduced to primary sources related to family history, including photographs, family trees, artifacts, and oral histories. Students study the history of a family and may construct a history of their own family, a relative's family, a family known through personal experience, or a fictional family (from a book). In developing these activities, teachers need to be sensitive to family privacy and protect the wishes of students and parents who prefer not to include their families in these activities.

Members of students' families can be invited to tell about the experiences of their families. Quality literature may be shared to help students acquire deeper insights into life in the past and the cultures from which the families came; the stories, games, and festivals parents or grandparents might have enjoyed as students; the work that students and their families would have been expected to do; their religious practices; and the dress, manners, and morals expected of family members at that time. Students are encouraged to compare and contrast their daily lives with those of families who have lived in the past. To deepen student understanding and engagement, students can read books such as *Dear Juno* by Soyung Pak and *The Boy with Long Hair* by Pushpinder (Kaur) Singh.

Students also develop the concept of chronological thinking as they construct timelines to place important events in their lives in the order in which they occurred. They can construct timelines of their school day and important events in their lives and family members' lives.

Geography and Mapping Skills: People, Places, and Environments

Students learn to describe the absolute and relative locations of people, places, and environments. They learn to locate specific locations and geographic features in their neighborhood or community by using a simple letter–number grid system. Maps should be used frequently to provide practice in the use of map elements such as title, legend, directional indicator, scale, and date. Students demonstrate their knowledge of this standard by labeling a North American map with the names of countries, oceans, the Great Lakes, major rivers, and mountain ranges.

Maps should be used frequently to provide practice in the use of map elements such as title, legend, directional indicator, scale, and date.

Students may utilize world maps to locate places of family origin as part of the study of family history in Standard 2.1. This allows the geographic theme of movement to be explored—why people move from place to place, as well as how and why they made the trip.

Students also compare and contrast basic land use in urban, suburban, and rural environments in California. Maps, photographs, informational books, and Web resources can be used to explore differences in and environmental impacts of land use. This standard may be explored as part of the study of farming and moving food from the farm to the market in Standard 2.4.

Government Institutions and Practices

Students learn about governmental institutions and practices in the United States and other countries. They continue to develop their understanding of rules and laws, the role of government, and rights and responsibilities. To deepen their understanding of these concepts, students use informational books about the three branches of government. Students may participate in a classroom simulation of the three branches of government and use literature books such as *House Mouse Senate Mouse* and other books in the series by Cheryl Shaw Barnes and Peter W. Barnes that explain the branches of government in a developmentally appropriate way. To understand how groups and nations interact with one another and resolve their problems, students learn to relate these concepts to familial and classroom rules and structures and how problems are solved in these more familiar settings.

Students may discuss situations in which rules are important at home, at school, in the city, and in the state and consider what happens if someone on the playground refuses to play a game by the rules. Students can select one rule and use language-arts skills to create a story about why this rule is important and how life would be different without it. They may also discuss how school rules are made. Students use analytical skills to consider questions such as the following: Is the school too large for everyone to discuss and vote on a decision? Students can discuss the major things governments do in the school, community, state, and nation and give a basic description of government at the end of the year.

Economics: People Who Supply Our Goods and Services

Students develop economic literacy and appreciation of the many people who work to supply commonly used products. They learn about those who supply food: people who grow and harvest cash crops such as wheat, vegetables, and fruit; workers who supply dairy products such as milk, butter, and cheese; and processors and

distributors who move the food from farm to market. Throughout this study, students learn basic economic concepts of human wants, scarcity, and choice and the importance of specialization in work today. In addition, students consider the interdependence of consumers, producers, processors, and distributors in bringing food to market. Students also develop an understanding of their roles as consumers in a complex economy. Books such as *Ox-Cart Man* by Donald Hall can help students develop their understanding of these economic concepts.

As part of these studies, students explore geographic connections such as how climate affects the crops that a farmer grows, how farmers protect their crops against untimely frost or drought, the importance of water, and how irrigation systems work.

To engage students' interest and to help them develop an understanding of the complex interdependence among the many workers in the food industry, graphic organizers or flowcharts may be used to illustrate these relationships. Students can observe the many linkages between their homes, the markets that supply their food, the places where people work to produce their food, and the transportation systems that move these products from farm to processor to market. Field trips to local businesses and books such as *From Wheat to Pasta* by Robert Egan, *From Cow to Ice Cream* by Bertram T. Knight, or *Farming* by Gail Gibbons are helpful for illustrating the concepts.

Biographies: People Who Made a Difference

In second grade, students will be introduced to the many people—ordinary and extraordinary—who have contributed to society and made a difference.

In second grade, students will be introduced to the many people—ordinary and extraordinary—who have contributed to society and made a difference. For example, *Rosa,* a picture book by Nikki Giovanni, introduces students to an ordinary person, Rosa Parks, whose actions made a tremendous difference in the lives of others. Students learn about men, women, and children whose contributions can be appreciated by young children and whose achievements have directly or indirectly touched the students' lives or the lives of others. Included, for example, are scientists such as George Washington Carver, Marie Curie, Louis Pasteur, Charles Drew, and Thomas Edison; authors; musicians; artists; and athletes, such as Jackie Robinson and Wilma Rudolph. Teachers may read biographies aloud and use biographies written at a variety of reading levels, such as the Rookie Biographies series, for students to read independently. As students meet these heroes from long ago and the recent past, they understand the importance of individual action and moral character in one's life. Students identify the skills and knowledge those people had that helped them achieve their goals.

Students can also make a difference. They can work together in groups to brainstorm problems that exist at their school and in their community, such as litter or bullying. Students can evaluate and vote on a solution, which for litter might include hosting a cleanup day, expanding a school recycling program, or working to change a rule. Students can create a plan and work in teams to carry it out. Together, they can then evaluate their effectiveness (e.g., by asking, *Is there less litter as a result of our actions?*).

The Education and the Environment Initiative

The following units from the Education and the Environment Initiative (EEI) Curriculum can be used to provide instruction in the history–social science standards listed below.

Second Grade		
Standard Number	**Standard Text**	**EEI Curriculum Unit Name**
2.2.4.	Compare and contrast basic land use in urban, suburban, and rural environments in California.	*California Lands – Then and Now*
2.4.1.	Describe food production and consumption long ago and today, including the roles of farmers, processors, distributors, weather, and land and water resources.	*From Field to Table*
2.4.2. **2.4.3.**	Understand the role and interdependence of buyers (consumers) and sellers (producers) of goods and services. Understand how limits on resources affect production and consumption (what to produce and what to consume).	*The Dollars and Sense of Food Production*

For more information about EEI instructional units, visit the California Department of Environmental Protection Agency Web page at http://www.calepa.ca.gov/Education/EEI (Outside Source).

Support for English Learners

History–social science is particularly challenging for English learners. They must simultaneously develop fluency in a second language and also gain content and analysis skills in a complex subject area with high literacy demands. To learn English and achieve mastery of the history–social science content standards, students must participate in instructional programs that combine critical content knowledge and skill development in both English-language proficiency and the content standards and analysis skills contained in the *History–Social Science Framework for California Public Schools* (California Department of Education 2005).

All students should have an opportunity to actively engage with the history–social science content standards regardless of their proficiency in the English language. Effective instructional practices foster English-language development (ELD) and at the same time teach history–social science content. Early instruction in English literacy and content knowledge across all disciplines must be incorporated into ELD programs. In a structured English immersion program, history–social science for English learners continues to be taught while students are mastering English. In fact, most studies promote instruction in the content areas despite low literacy or limited proficiency in the English language, along with the critical-thinking and analysis skills and the particular reading strategies of the disciplines.

All students should have an opportunity to actively engage with the history–social science content standards regardless of their proficiency in the English language.

Teachers should align history–social science instruction with the grade-level expectations in the four domains (reading, writing, listening and speaking, and language) described in the English language arts content standards. Before classroom instruction, teachers need to determine what they want the students to learn, their students' English-language proficiency, and the language demands of each lesson's instructional materials.

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at http://www.cde.ca.gov/sp/el/.

The Standards

The following grade-two history–social science content standards were adopted by the California State Board of Education on October 9, 1998. In addition, the recently adopted CCSS include standards for literacy in history/social studies. These standards do not replace the history–social science content standards but supplement them by setting specific requirements for reading and writing informational texts, including history–social science documents. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted. See the English language arts section for more information about the CCSS for grade two.

History–Social Science Content Standards Grade Two: People Who Make a Difference
2.1 Students differentiate between things that happened long ago and things that happened yesterday. 1. Trace the history of a family through the use of primary and secondary sources, including artifacts, photographs, interviews, and documents. 2. Compare and contrast their daily lives with those of their parents, grandparents, and/or guardians. 3. Place important events in their lives in the order in which they occurred (e.g., on a time line or storyboard).
2.2 Students demonstrate map skills by describing the absolute and relative locations of people, places, and environments. 1. Locate on a simple letter-number grid system the specific locations and geographic features in their neighborhood or community (e.g., map of the classroom, the school). 2. Label from memory a simple map of the North American continent, including the countries, oceans, Great Lakes, major rivers, and mountain ranges. Identify the essential map elements: title, legend, directional indicator, scale, and date. 3. Locate on a map where their ancestors live(d), telling when the family moved to the local community and how and why they made the trip. 4. Compare and contrast basic land use in urban, suburban, and rural environments in California.
2.3 Students explain governmental institutions and practices in the United States and other countries. 1. Explain how the United States and other countries make laws, carry out laws, determine whether

laws have been violated, and punish wrongdoers.

2. Describe the ways in which groups and nations interact with one another to try to resolve problems in such areas as trade, cultural contacts, treaties, diplomacy, and military force.

2.4 Students understand basic economic concepts and their individual roles in the economy and demonstrate basic economic reasoning skills.

1. Describe food production and consumption long ago and today, including the roles of farmers, processors, distributors, weather, and land and water resources.

2. Understand the role and interdependence of buyers (consumers) and sellers (producers) of goods and services.

3. Understand how limits on resources affect production and consumption (what to produce and what to consume).

2.5 Students understand the importance of individual action and character and explain how heroes from long ago and the recent past have made a difference in others' lives (e.g., from biographies of Abraham Lincoln, Louis Pasteur, Sitting Bull, George Washington Carver, Marie Curie, Albert Einstein, Golda Meir, Jackie Robinson, Sally Ride).

Historical and Social Sciences Analysis Skills
Kindergarten Through Grade Five

The intellectual skills noted below are to be learned through, and applied to, the content standards for kindergarten through grade five. They are to be assessed *only in conjunction with* the content standards in kindergarten through grade five.

In addition to the standards for kindergarten through grade five, students demonstrate the following intellectual, reasoning, reflection, and research skills:

Chronological and Spatial Thinking

1. Students place key events and people of the historical era they are studying in a chronological sequence and within a spatial context; they interpret time lines.

2. Students correctly apply terms related to time, including *past, present, future, decade, century,* and *generation.*

3. Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.

4. Students use map and globe skills to determine the absolute locations of places and interpret information available through a map's or globe's legend, scale, and symbolic representations.

5. Students judge the significance of the relative location of a place (e.g., proximity to a harbor, on trade routes) and analyze how relative advantages or disadvantages can change over time.

Research, Evidence, and Point of View

1. Students differentiate between primary and secondary sources.

2. Students pose relevant questions about events they encounter in historical documents, eyewitness accounts, oral histories, letters, diaries, artifacts, photographs, maps, artworks, and architecture.

3. Students distinguish fact from fiction by comparing documentary sources on historical figures and events with fictionalized characters and events.

Historical Interpretation

1. Students summarize the key events of the era they are studying and explain the historical contexts of those events.

2. Students identify the human and physical characteristics of the places they are studying and explain how those features form the unique character of those places.

3. Students identify and interpret the multiple causes and effects of historical events.

4. Students conduct cost-benefit analyses of historical and current events.

Science

Overview

Second-grade students begin to develop the ability to use more abstract thinking. Science is an excellent avenue for them to use their expanding cognitive abilities, with opportunities to categorize, observe and interpret nature, or logically predict what may happen.

Students in grade two are expected to learn both the content and process of science. Effective science programs reflect a balanced, comprehensive approach that includes the teaching of investigation and experimentation skills along with direct instruction. Key elements of a balanced science program include explicit teaching of science content and concepts, identifying students' prior knowledge and addressing student misconceptions. Investigation skills should also be highlighted, with students encouraged to find answers or reach conclusions using their own experiences or observations. High-quality science instruction should also develop students' command of the academic language of science and use standards-based connections with other core subjects to reinforce science teaching and learning.

Safety should always be the foremost consideration in teacher modeling, the design of demonstrations, investigation and experiments, and science projects. Safety must be taught. Knowing and following safe practices in science are a part of understanding the nature of science and scientific enterprise. Everyone involved in science education should become familiar with the *Science Safety Handbook for California Public Schools*, which is posted on the CDE Web site at http://www.cde.ca.gov/pd/ca/sc/documents/scisafebk.pdf. The publication contains specific and useful information relevant to teachers, administrators, parents/guardians, and students.

What Second-Grade Students Should Know

By the time students reach second grade, they already have some basic foundations in science. In physical sciences, students know the general differences between and similarities among properties common to all solids, liquids, and gases. They have learned about the changes in states of matter that may occur when solids and liquids are heated. In life sciences, students have studied the favorable habitats (usually including air and soil), water, and energy supply (sunlight or food) that organisms need to survive, and how plants and animals live in different environments.

The study of weather is a key part of earth sciences in kindergarten and first grade. Students entering second grade know that each season has its own predictable range of weather conditions and also know how to use simple equipment to measure these conditions. They know that Earth receives energy from sunlight and that the warming of the planet has a strong influence on the weather.

Students are able to make careful observations and can compare and establish the order of objects and events. They are able to make quantitative observations and comparisons by recording and using numbers. Students know how to describe their observations and data by using pictures, numbers, graphs, or written statements.

What Students Learn in Second Grade

In second grade, scientific investigation focuses on the students' questioning, observation, and communication skills. Students need time to examine different ideas, ask questions, observe patterns, make predictions, use simple equipment and tools, and discuss what they see with others. They develop skills in making careful, replicable, and validated observations and have multiple opportunities to communicate their findings in writing, through pictures, and orally. In addition, students learn about the important role of technology in science.

In the physical sciences, second-grade students learn about forces (pushes and pulls) and the phenomena of gravity, magnetism, and sound. In the life sciences, they learn about the life cycles of animals and plants and the basics of inheritance. In the earth sciences, students learn that rocks are composed of different combinations of minerals, that smaller rocks and soil are made from the breakage and weathering of larger rocks, and that soil also contains organic materials. Students are introduced to fossils and the evidence they provide about Earth's history.

With appropriate tools, students practice measuring length, weight, temperature, and liquid volume, expressing those measurements in standard metric-system units. They learn to organize their observations into a chronological sequence and are able to follow oral instructions for an investigation.

Second-grade science topics are organized into four standard sets: Physical Sciences, Life Sciences, Earth Sciences, and Investigation and Experimentation. As students learn the content defined by the standards in the Life, Earth, and Physical Sciences strands, they are also practicing investigation and experimentation skills. That is, the investigation and experimentation standards should be infused throughout science instruction.

Physical Sciences

In second grade, students develop a foundation for the study of motion and force. Students are also introduced, at a very basic level, to the forces of gravity and magnetism and learn about the ability of vibrating objects to make sounds.

Specifically, students learn to locate an object by measuring its distance and noting its direction in relation to another object that serves as a reference point. They are introduced to the concept of motion by observing and recording the position of objects at intervals of time and noting the changes in speed and direction along the path the object travels. The term *force* is introduced. Students learn that pushes and pulls are forces and examine some of the methods by which tools and machines transmit or apply pushes and pulls to make things move.

Students learn that pushes and pulls are forces and examine some of the methods by which tools and machines transmit or apply pushes and pulls to make things move.

Second-grade students are taught that all objects in the universe are pulled toward all other objects by gravity and that bigger, more massive objects pull more strongly than lighter ones. In addition, students learn about magnets and how the poles of magnets can either repel or attract one another. These concepts give students an understanding of force at a distance and of the ability to apply pushes and pulls to objects without touching them. In addition, students know that vibrations produce sound and that faster vibrations lead to higher pitches of sound.

Life Sciences

The life sciences standards for second grade provide the foundation for understanding the concepts of genetics, evolution, and ecology in the later grades. Students learn that plants and animals have predictable life cycles; the characteristics of a species are generally consistent from generation to generation, with some variations; and the sequential stages of life cycles are different for different animals. The concept of inheritance

is emphasized, and students learn that the characteristics of an organism are defined by the genes inherited from its biological parents and may be strongly influenced, or even caused, by the environment.

Life sciences standards offer the opportunity to study the effects of environmental factors (e.g., the amount of water and light, types of soil) on plant life. Students also learn that plant germination and reproduction are related to the structure and function of seeds, flowers, and fruits.

Earth Sciences

Earth science standards in the second grade focus on the composition, processes, and materials of Earth's crust. Students learn how to compare the physical properties (e.g., hardness, color, and luster) of some common minerals and conclude that rocks are composed of different combinations of minerals. The term *weathering* is introduced as a process that leads to breaking rocks into smaller pieces. Studying the relationship between weathering and soil formation, students learn that soil has an important effect on the growth and survival of plants.

They understand that resources to meet many human needs—such as food, clothing, fuel, and shelter—originate from rocks, water, plants, and soil.

The concept of *geologic time* and the study of fossils are introduced. Students are asked to think abstractly about events that took place in Earth's ancient, geologic past. They learn that Earth has not always looked the same as it does today. Teachers should present some of the evidence (particularly from fossils) that scientists use to "observe" what Earth was like in the geologic past. Students discuss and identify the origin of things they use in their everyday lives. In addition, they understand that resources to meet many human needs—such as food, clothing, fuel, and shelter—originate from rocks, water, plants, and soil. Students develop an understanding about the relationship between manufactured materials and the natural resources from which they originate.

Investigation and Experimentation

In second grade, students observe patterns associated with changes in objects and events and develop the ability to make simple predictions about what will happen on the basis of concepts, principles, and theories related to the natural world. (Predictions should not be confused with hypotheses, which will be introduced in sixth grade.)

Scientific measurements are always associated with units, and grade-two students learn to measure and record length in meters and centimeters, weight (mass) in grams and kilograms, volume in liters and milliliters, and temperature in degrees Celsius. Students also learn that scientists use tools to extend their powers of observation. Simple magnifiers and microscopes can be used to reveal exciting and sometimes surprising microstructures and properties of common objects, such as sand and cloth. Making careful sketches of what is observed under the magnifier is an important method by which students can communicate their observations.

The Education and the Environment Initiative

Second-grade science instruction builds environmental literacy as students better understand how they influence the environment and how it influences them. The following units from the Education and the Environment Initiative (EEI) Curriculum can be used to provide instruction in the science standards listed below.

Second Grade		
Standard Number	**Standard Text**	**EEI Curriculum Unit Name**
2.2.a.	Students know that organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another.	*Cycle of Life*
2.2.b.	Students know the sequential stages of life cycles are different for different animals, such as butterflies, frogs, and mice.	
2.2.c.	Students know many characteristics of an organism are inherited from the parents. Some characteristics are caused or influenced by the environment.	*Alike and Different*
2.2.d.	Students know there is a variation among individuals of one kind within a population.	
2.2.e.	Students know light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants	*Flowering Plants in Our Changing Environment*
2.2.f.	Students know flowers and fruits are associated with reproduction in plants.	
2.3.a.	Students know how to compare the physical properties of different kinds of rocks and know that rock is composed of different combinations of minerals.	*The Earth Rocks*
2.3.b.	Students know smaller rocks come from the breakage and weathering of larger rocks.	

For more information about EEI instructional units, visit the California Environmental Protection Agency Web page at http://www.calepa.ca.gov/Education/EEI (Outside Source).

Science Across the Content Areas

The second-grade science standards are readily integrated with other academic content standards. The content standards for both science and mathematics specify writing; measuring; simple graphing; and making drawings to record, organize, interpret, and display data. Students practice measuring (with appropriate tools) length, weight, temperature, and liquid volume, expressing those measurements in standard metric system units. Students in grade two should learn to organize their observations into chronological sequence and be able to follow oral instructions for an investigation.

Students develop written and oral language skills as they record observations, participate in shared research activities, and engage in discussions about science topics. They develop information literacy skills as they learn to use pictures and context to retrieve information and make predictions.

In 2010, California adopted the Common Core State Standards (CCSS), including standards for literacy in science. These standards do not replace the science content standards but supplement them by setting specific requirements for reading and writing informational texts, including science documents. The new standards will be implemented over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted. Refer to the English language arts section for more information about the CCSS for second grade.

Support for English Learners

All students, regardless of English language proficiency, should have access to high quality science instruction. With its focus on domain-specific vocabulary acquisition and utilization of hands-on, collaborative activities, a balanced second-grade science program provides many opportunities for English-language development (ELD). However, science instruction may still present challenges for some English learners. Specific challenges include learning science-related terms and academic vocabulary. Directions may be complex and contain multiple steps. Visual information may not be easily comprehensible.

Students benefit from clear and consistent classroom routines, group or peer interaction to share information and processes, and activities that are relevant and meaningful.

Some strategies that may help students understand new science concepts and processes include connecting to students' background knowledge, experiences, and familiar terminology; focusing on key science terms before, during, and after a lesson; and utilizing different formats (e.g., charts, graphs, pictures).

Students benefit from clear and consistent classroom routines, group or peer interaction to share information and processes, and activities that are relevant and meaningful. ELD is especially enhanced by (1) opportunities for informal conversations about content and concepts, (2) modeling of the appropriate use of equipment, and (3) an adequate amount of wait time for student response.

The Standards

The following grade-two science content standards were adopted by the California State Board of Education on October 9, 1998.

Science Content Standards Grade Two	
Physical Sciences	
1.	**The motion of objects can be observed and measured. As a basis for understanding this concept:**
1.a.	Students know the position of an object can be described by locating it in relation to another object or to the background.
1.b.	Students know an object's motion can be described by recording the change in position of the object over time.
1.c.	Students know the way to change how something is moving is by giving it a push or a pull. The size of the change is related to the strength, or the amount of force, or the push or pull.
1.d.	Students know tools and machines are used to apply pushes and pulls (forces) to make things move.
1.e.	Students know objects fall to the ground unless something holds them up.
1.f.	Students know magnets can be used to make some objects move without being touched.
1.g.	Students know sound is made by vibrating objects and can be described by its pitch and volume.
Life Sciences	
2.	**Plants and animals have predictable life cycles. As a basis for understanding this concept:**
2.a.	Students know that organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another.
2.b.	Students know the sequential stages of life cycles are different for different animals, such as butterflies, frogs, and mice.
2.c.	Students know many characteristics of an organism are inherited from the parents. Some characteristics are caused or influenced by the environment.
2.d.	Students know there is variation among individuals of one kind within a population.
2.e.	Students know light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants.

2.f.	Students know flowers and fruits are associated with reproduction in plants.
Earth Sciences	
3.	**Earth is made of materials that have distinct properties and provide resources for human activities. As the basis for understanding this concept:**
3.a.	Students know how to compare the physical properties of different kinds of rocks and know that rock is composed of different combinations of minerals.
3.b.	Students kno*w* smaller rocks come from the breakage and weathering of larger rocks.
3.c.	Students know that soil is made partly from weathered rock and partly from organic materials and that soils differ in their color, texture, capacity to retain water, and ability to support the growth of many kinds of plants.
3.d.	Students kno*w* that fossils provide evidence about the plants and animals that lived long ago and that scientists learn about the past history of Earth by studying fossils.
3.e.	Students know rock, water, plants, and soil provide many resources, including food, fuel, and building materials, that humans use.
Investigation and Experimentation	
4.	**Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:**
4.a.	Make predictions based on observed patterns and not random guessing.
4.b.	Measure length, weight, temperature, and liquid volume with appropriate tools and express those measurements in standard metric system units.
4.c	Compare and sort common objects according to two or more physical attributes (e.g., color, shape, texture, size, weight).
4.d.	Write or draw descriptions of a sequence of steps, events, and observations.
4.e.	Construct bar graphs to record data, using appropriately labeled axes.
4.f.	Use magnifiers or microscopes to observe and draw descriptions of small objects or small features of objects.
4.g.	Follow oral instructions for a scientific investigation.

Visual and Performing Arts

Overview

Second-grade students become excited when they can connect their previous learning with something new or when they can demonstrate their expanding skills. On their own and in small groups, they are working to experiment and solve problems. Among their accomplishments may appear brightly colored bits of modeling clay fashioned into tree frogs representing a "new species" from a study of the diversity of life in the rainforest; use of chants and clapping to mathematical rhythms and use of rap music to memorize mathematical facts; or a journal entry about a child's picture that includes the following sentence: "The diagonal lines show my legs are moving." Students demonstrate acquired knowledge through artistic self-expression.

What Second-Grade Students Should Know

In first grade, students began to develop the focus needed to succeed in creating and performing art. In dance, students learned to vary and join dance movements, incorporating variety to express emotions in the way they moved. In music, they developed skills in listening, technique, and accuracy by singing songs from various cultures and playing classroom instruments. In theatre, students practiced basic theatrical techniques through simple acting, improvisation, and the creation of tableaux. Finally, in the visual arts, students began to learn how to create three-dimensional works of art in two-dimensional formats, using texture and color. In all of the arts disciplines, students continued their exposure to different examples of art from various cultures, learning how to identify and appreciate differences in artistic expression.

What Students Learn in Second Grade

Dance

Students begin to combine dance movements into short sequences by using varied tempos and rhythms. They move fast and then very slowly, first in an AB sequence and then in an ABA sequence. Their sequences have movements that reach high and bend down low. Naming locomotor and axial movements used in dance, they identify them in dances from various countries that they learn to perform. When they describe how movements in dance communicate ideas or moods and are alike and different, they use the dance vocabulary they are learning, such as *tempo, rhythm,* and *levels.* And they learn (1) that dance can benefit overall health and well being, and (2) that working with partners and groups is an important part of dance.

Music

Students learn verbal syllables, such as *sol* and *fa,* for the degrees of the musical scale, called *solfège*. In doing so, they learn to read, write, and perform simple patterns of pitch, a process that leads to a whole world of listening to, playing, singing, and composing music.

Theatre

Students perform in group improvisations and learn theatrical games to improve their skills. In the process, they develop cooperative skills and concentration and learn the vocabulary of the theatre, such as *plot, scene, sets, conflict,* and *script.* As students retell familiar stories and those from other cultures, they identify universal character types.

Visual Arts

Students continue to expand their understanding of the elements of art and apply them as they learn to use basic tools and art-making processes, such as printmaking and collage. They describe art objects from various cultures and time periods brought into the classroom for analysis. Students are beginning to evaluate their own work as they analyze what they intended to paint and how well they succeeded.

Students are beginning to evaluate their own work as they analyze what they intended to paint and how well they succeeded.

The Standards

The visual and performing arts content standards provide expectations for students in four disciplines: dance, music, theatre, and visual arts. At each grade level, the standards are grouped under five strands:

1. **Artistic perception** refers to processing, analyzing, and responding to sensory information through the use of the language and skills unique to dance, music, theatre, and the visual arts.

2. **Creative expression** involves creating a work, performing, and participating in the arts disciplines.

3. **Historical and cultural context** concerns the work students do toward understanding the historical contributions and cultural dimensions of an arts discipline.

4. **Aesthetic valuing** includes analyzing and critiquing works of dance, music, theatre, and the visual arts.

5. **Connections, relationships, and applications** involve connecting and applying what is learned in one arts discipline and comparing it to learning in the other arts, other subject areas, and careers.

When reading the standards at a particular grade level, one must know which standards were accomplished in all the previous grade levels to understand how expectations are based on prior learning. In addition, an examination of the standards for any of the art forms at a given grade level reveals overlaps and points of connection across the strands because the strands and the content standards for the four disciplines are intrinsically related.

Key Content Standards

Each arts discipline and artistic process has many entry points throughout the grades. Because particular ideas, concepts, and experiences are critical to student achievement at certain times in their artistic and cognitive development, the standards provide students with a picture of what is essential to know and be able to

do, from kindergarten through grade eight, in each of the four arts disciplines. The key content standards provide a beginning point for standards-based instruction in each grade of elementary and middle school and focus on fundamental content that students need in order to move to the next level of understanding and expression. Like the complete standards, the key standards build up content in each successive grade level and spiral throughout the curriculum for kindergarten through grade eight. They are essential in preparing students for beginning-level high school arts courses in which they engage in more focused and independent work. Key standards are indicated in the list below with an asterisk (*).

The following grade-two visual and performing arts content standards were adopted by the California State Board of Education on January 10, 2001.

Visual and Performing Arts Content Standards
Grade Two

Component Strand: 1.0 Artistic Perception

Dance Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Dance	**Music** Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Music	**Theatre** Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Theatre	**Visual Arts** Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to the Visual Arts
Students perceive and respond, using the elements of dance. They demonstrate movement skills, process sensory information, and describe movement, using the vocabulary of dance. **Development of Motor Skills and Technical Expertise** 1.1 Show a variety of combinations of basic locomotor skills (e.g., walk and run, gallop and jump, hop and skip, slide and roll). 1.2 Show a variety of combinations of axial movements (e.g., swing and balanced shapes, turn and stretch, bend and twist). **Comprehension and Analysis of Dance Elements** 1.3* Perform short movement problems, emphasizing the element of time (e.g., varied tempos, rhythmic patterns, counting). 1.4 Expand the ability to incorporate spatial concepts with movement problems. **Development of Dance Vocabulary** 1.5 Name a large number of locomotor and axial movements used in dance.	Students read, notate, listen to, analyze, and describe music and other aural information, using the terminology of music. **Read and Notate Music** 1.1 Read, write, and perform simple rhythmic patterns, using eighth notes, quarter notes, half notes, and rests. 1.2* Read, write, and perform simple patterns of pitch, using solfège. **Listen to, Analyze, and Describe Music** 1.3 Identify ascending/descending melody and even/uneven rhythm patterns in selected pieces of music. 1.4 Identify simple musical forms, emphasizing verse/refrain, AB, ABA. 1.5 Identify visually and aurally individual wind, string, brass, and percussion instruments used in a variety of music.	Students observe their environment and respond, using the elements of theatre. They also observe formal and informal works of theatre, film/video, and electronic media and respond, using the vocabulary of theatre. **Development of the Vocabulary of Theatre** 1.1* Use the vocabulary of theatre, such as plot (beginning, middle, and end), scene, sets, conflict, script, and audience, to describe theatrical experiences. **Comprehension and Analysis of the Elements of Theatre** 1.2 Use body and voice to improvise alternative endings to a story.	Students perceive and respond to works of art, objects in nature, events, and the environment. They also use the vocabulary of the visual arts to express their observations. **Develop Perceptual Skills and Visual Arts Vocabulary** 1.1 Perceive and describe repetition and balance in nature, in the environment, and in works of art. 1.2 Perceive and discuss differences in mood created by warm and cool colors. **Analyze Art Elements and Principles of Design** 1.3* Identify the elements of art in objects in nature, the environment, and works of art, emphasizing line, color, shape/form, texture, and space.

*Indicates a key standard.

Component Strand: 2.0 Creative Expression			
Dance Creating, Performing, and Participating in Dance	**Music** Creating, Performing, and Participating in Music	**Theatre** Creating, Performing, and Participating in Theatre	**Visual Arts** Creating, Performing, and Participating in the Visual Arts
Students apply choreographic principles, processes, and skills to create and communicate meaning through improvisation, composition, and performance of dance. **Creation/Invention of Dance Movements** 2.1 Create and improvise movement patterns and sequences. 2.2 Demonstrate multiple solutions in response to a given movement problem (e.g., In how many ways can you travel from point A to point B?). **Application of Choreographic Principles and Processes to Creating Dance** 2.3 Create a simple sequence of movement with a beginning, a middle, and an end, incorporating level and directional changes. 2.4 Create shapes and movements, using fast and slow tempos. 2.5 Develop a dance phrase that has a sense of unity. **Communication of Meaning in Dance** 2.6 Create, memorize, and perform original expressive movements for peers. **Development of Partner and Group Skills** 2.7 Work cooperatively in small and large groups. 2.8 Demonstrate partner skills (e.g., imitating and leading/following).	Students apply vocal and instrumental musical skills in performing a varied repertoire of music. They compose and arrange music and improvise melodies, variations, and accompaniments, using digital/electronic technology when appropriate. **Apply Vocal and Instrumental Skills** 2.1 Sing with accuracy in a developmentally appropriate range. 2.2 Sing age-appropriate songs from memory. 2.3 Play rhythmic ostinatos on classroom instruments. **Music Compose, Arrange, and Improvise** 2.4* Improvise simple rhythmic and melodic accompaniments, using voice and a variety of classroom instruments.	Students apply processes and skills in acting, directing, designing, and scriptwriting to create formal and informal theatre, film/videos, and electronic media productions and to perform in them. **Development of Theatrical Skills** 2.1* Perform in group improvisational theatrical games that develop cooperative skills and concentration. **Creation/Invention in Theatre** 2.2 Retell familiar stories, sequencing story points and identifying character, setting, and conflict. 2.3 Use improvisation to portray such concepts as friendship, hunger, or seasons. 2.4 Create costume pieces, props, or sets for a theatrical experience.	Students apply artistic processes and skills, using a variety of media to communicate meaning and intent in original works of art. **Skills, Processes, Materials, and Tools** 2.1* Demonstrate beginning skill in the use of basic tools and art-making processes, such as printing, crayon rubbings, collage, and stencils. 2.2 Demonstrate beginning skill in the use of art media, such as oil pastels, watercolors, and tempera. **Communication and Expression Through Original Works of Art** 2.3 Depict the illusion of depth (space) in a work of art, using overlapping shapes, relative size, and placement within the picture. 2.4 Create a painting or drawing, using warm or cool colors expressively. 2.5 Use bilateral or radial symmetry to create visual balance.

*Indicates a key standard.

Component Strand: 3.0 Historical and Cultural Context			
Dance Understanding the Historical Contributions and Cultural Dimensions of Dance	**Music** Understanding the Historical Contributions and Cultural Dimensions of Music	**Theatre** Understanding the Historical Contributions and Cultural Dimensions of Theatre	**Visual Arts** Understanding the Historical Contributions and Cultural Dimensions of the Visual Arts
Students analyze the function and development of dance in past and present cultures throughout the world, noting human diversity as it relates to dance and dancers. **Development of Dance** 3.1* Name and perform social and traditional dances from various cultures. 3.2 Explain commonalities among basic locomotor and axial movements in dances from various countries. 3.3 Name and perform rhythms from different cultures (e.g., through clapping, stamping, using whole body movement). **History and Function of Dance** 3.4 Describe dances seen in celebrations and community events.	Students analyze the role of music in past and present cultures throughout the world, noting cultural diversity as it relates to music, musicians, and composers. **Role of Music** 3.1 Identify the uses of specific music in daily or special events. **Diversity of Music** 3.2 Sing simple songs and play singing games from various cultures. 3.3 Describe music from various cultures.	Students analyze the role and development of theatre, film/video, and electronic media in past and present cultures throughout the world, noting diversity as it relates to theatre. **Role and Cultural Significance of Theatre** 3.1 Identify theatre and storytelling forms from different cultures. **History of Theatre** 3.2 Identify universal characters in stories and plays from different periods and places.	Students analyze the role and development of the visual arts in past and present cultures throughout the world, noting human diversity as it relates to the visual arts and artists. **Role and Development of the Visual Arts** 3.1 Explain how artists use their work to share experiences or communicate ideas. 3.2* Recognize and use the vocabulary of art to describe art objects from various cultures and time periods. **Diversity of the Visual Arts** 3.3 Identify and discuss how art is used in events and celebrations in various cultures, past and present, including the use in their own lives.

*Indicates a key standard.

Component Strand: 4.0 Aesthetic Valuing			
Dance Responding to, Analyzing, and Making Judgments About Works of Dance	**Music** Responding to, Analyzing, and Making Judgments About Works of Music	**Theatre** Responding to, Analyzing, and Critiquing Theatrical Experiences	**Visual Arts** Responding to, Analyzing, and Making Judgments About Works in the Visual Arts
Students critically assess and derive meaning from works of dance, performance of dancers, and original works based on the elements of dance and aesthetic qualities. **Description, Analysis, and Criticism of Dance** 4.1 Use basic dance vocabulary to name and describe a dance observed or performed (e.g., levels, rhythm patterns, type of energy). 4.2* Describe how the movement in dances of peers communicates ideas or moods to the viewer (e.g., ocean environment or a sad or joyous dance). **Meaning and Impact of Dance** 4.3 Describe the similarities and differences in performing various dances (e.g., direction changes, steps, type of energy and tempo).	Students critically assess and derive meaning from works of music and the performance of musicians according to the elements of music, aesthetic qualities, and human responses. **Analyze and Critically Assess** 4.1 Use the terminology of music in discussing individual preferences for specific music. **Derive Meaning** 4.2* Create developmentally appropriate movements to express pitch, tempo, form, and dynamics in music. 4.3 Identify how musical elements communicate ideas or moods. 4.4 Respond to a live performance with appropriate audience behavior.	Students critique and derive meaning from works of theatre, film/video, electronic media, and theatrical artists on the basis of aesthetic qualities. **Critical Assessment of Theatre** 4.1* Critique an actor's performance as to the use of voice, gesture, movement to create character. 4.2 Respond to a live performance with appropriate audience behavior. **Derivation of Meaning from Works of Theatre** 4.3 Identify the message or moral of a work of theatre.	Students analyze, assess, and derive meaning from works of art, including their own, according to the elements of art, the principles of design, and aesthetic qualities. **Derive Meaning** 4.1 Compare ideas expressed through their own works of art with ideas expressed in the work of others. 4.2 Compare different responses to the same work of art. **Make Informed Judgments** 4.3* Use the vocabulary of art to talk about what they wanted to do in their own works of art and how they succeeded. 4.4 Use appropriate vocabulary of art to describe the successful use of an element of art in a work of art.

Component Strand: 5.0 Connections, Relationships, Applications			
Dance Connecting and Applying What Is Learned in Dance to Learning in Other Art Forms and Subject Areas and to Careers	**Music** Connecting and Applying What Is Learned in Music to Learning in Other Art Forms and Subject Areas and to Careers	**Theatre** Connecting and Applying What Is Learned in Theatre, Film/Video, and Electronic Media to Other Art Forms and Subject Areas and to Careers	**Visual Arts** Connecting and Applying What Is Learned in the Visual Arts to Other Art Forms and Subject Areas and to Careers
Student apply what they learn in dance to learning across subject areas. They develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills. They also learn about careers in and related to dance. **Connections and Applications Across Disciplines** 5.1 Use literature to inspire dance ideas (e.g., poem, cartoon, nursery rhyme). 5.2* Demonstrate language arts concepts through dance (e.g., show different punctuation marks through movement). **Development of Life Skills and Career Competencies** 5.3 Describe how choreographers create dances. 5.4 Describe how dancing requires good health-related habits (e.g., adequate nutrition, water, and rest; proper preparation for physical activity).	Students apply what they learn in music across subject areas. They develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills. They also learn about careers in and related to music. **Connections and Applications** 5.1 Identify similar themes in stories, songs, and art forms (e.g., patterns, texture). **Careers and Career-Related Skills** 5.2 Identify and discuss who composes and performs music.	Students apply what they learn in theatre, film/video, and electronic media across subject areas. They develop competencies and creative skills in problem solving, communication, and time management that contribute to lifelong learning and career skills. They also learn about careers in and related to theatre. **Connections and Applications** 5.1 Use problem-solving and cooperative skills in dramatizing a story, concept from another subject area. **Careers and Career-Related Skills** 5.2 Demonstrate the ability to participate cooperatively in the different jobs required to create a theatrical production.	Students apply what they learn in the visual arts across subject areas. They develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills. They also learn about careers in and related to the visual arts. **Connections and Applications** 5.1 Use placement, overlapping, and size differences to show opposites (e.g., up/down, in/out, over/under, together/apart, fast/slow, stop/go). 5.2 Select and use expressive colors to create mood and show personality within a portrait of a hero from long ago or the recent past. **Visual Literacy** 5.3 Identify pictures and sort them into categories according to expressive qualities (e.g., theme and mood). **Careers and Career-Related Skills** 5.4 Discuss artists in the community who create different kinds of art (e.g., prints, ceramics, paintings, sculpture).

*Indicates a key standard.

Health

Overview

Through health education, students learn skills that enable them to make healthy choices and avoid high-risk behaviors. They also learn health concepts and acquire related knowledge. Students develop communication skills, decision-making and goal-setting skills, refusal techniques, and the ability to access health information and assess its accuracy. They learn health skills and content simultaneously.

Health literacy is a primary goal of health education. *Health literacy* is defined as the capacity of an individual to obtain, interpret, and understand basic health information and services and the competence to use such information and services to enhance health. The knowledge and skills that comprise health literacy are woven throughout the health education content standards.

The health education content standards provide a vision of what students need to know and be able to do so they can adopt and maintain healthy behaviors. The eight overarching content standards are taught within the context of six content areas. For grades one through six, only three content areas are addressed each year to allow for sufficient time for effective instruction. For grade two, the three content areas are Nutrition and Physical Activity; Alcohol, Tobacco, and Other Drugs; and Mental, Emotional, and Social Health.

Students in grade two grow in spurts and experience changes in appetite. Learning about healthy food choices and being physically active helps students remain healthy during this period of growth. Grade-two students want to be more independent and self-sufficient and welcome opportunities to practice skills that lead to more independence and improve their emerging decision-making and planning skills. At this age, students exhibit more empathy for others, more self-control, and more cooperation. Friendships remain important, and self-concept is becoming increasingly so. Peer relationships grow more influential, and being accepted by others becomes critical to second-grade students. Students benefit from knowing what makes a good friend and how to show respect for individual differences, both of which are part of health education in grade two.

What Second-Grade Students Should Know

In first grade, students learned about how living things grow, their own major body parts, and the roles and responsibilities of family members. They learned how to identify and report dangerous situations. Students began to learn refusal skills in personal-safety situations and how to ask for help from trusted adults when feeling unsafe. They also learned skills for conflict resolution. Students learned about personal hygiene, common health problems and diseases, and sun safety. They practiced healthy behaviors to promote their health and development as they acquired skills in obtaining valid information, communicating, making decisions, and setting goals. They also began to promote the health and well-being of others.

What Students Learn in Second Grade

Throughout second grade, skills for developing positive health habits and using them to recognize and manage risks are the emphasis. Students learn about, select, and set goals to eat healthy and nutritious food. Students learn about the effects of physical activity and identify ways to increase their level of physical activity. They learn about alcohol, tobacco, and other drugs, including medicines that are helpful when taken correctly and harmful when they are not. They also learn and practice refusal skills to avoid unsafe behaviors and situations, even when a friend is pressuring them. Students in second grade learn and practice skills to form healthy, supportive relationships with trusted adults and friends.

Nutrition and Physical Activity

Students in second grade learn that eating a healthy diet provides them with the essential vitamins, minerals, fats, and proteins their bodies and minds need to function well and enjoy lifelong health. Students classify food into groups, identify healthy foods for meals and snacks, and become aware of how many servings from each food group they need each day. They also learn about and can describe the benefits of drinking sufficient amounts of water. To help students develop healthy eating habits, they discuss how family, friends, and the media influence their food choices. Advertisements, television commercials, and food packaging are explored as influences and sources of information. Second-graders also identify reliable sources of information about healthy foods and learn how to ask family members for healthy foods. Decision-making skills are enhanced as students compare and contrast healthy and less-healthy food choices. Students set goals for choosing healthy foods and practice making healthy choices when eating with friends. Planning a healthy menu for a day's worth of meals reinforces the concepts and skills students learn.

Students classify food into groups, identify healthy foods for meals and snacks, and become aware of how many servings from each food group they need each day.

In second grade, students also learn about the effects of eating habits and physical activity on health. They identify and explore options for physical activity outside of school. Students learn to use decision-making skills to identify safe ways to increase physical activity and then set goals for daily vigorous physical activity. They not only participate in physical activities with friends and family, but also can explain why physical activity is fun.

Alcohol, Tobacco, and Other Drugs

In second grade, students begin to learn to cope in an environment in which alcohol, tobacco, and other drugs are used. Distinguishing between helpful and harmful substances and understanding that even helpful substances, such as medicines, can be harmful if not used correctly are essential concepts that students learn in second grade. Second-grade students identify trusted adults who can provide accurate information regarding the safe use of medicine. They also learn rules for taking medicine at school, as well as at home. In addition, they learn that drugs are chemicals that change how the body and brain work. By the end of second grade, students can explain why household products and unknown substances are not safe to play with, ingest, or inhale.

Students in second grade learn and demonstrate refusal skills to avoid unsafe behaviors and situations—for example, when a friend pressures them to use a harmful substance or misuse medicines. They practice refusal skills until they can say no with confidence and conviction. Students evaluate why medicines that are safe for

one person may not be safe for another person. They also develop and demonstrate communication skills to alert trusted adults to unsafe situations involving drugs or medicines.

Mental, Emotional, and Social Health

Students in second grade are becoming more aware of others and more concerned about how others view them. Their friendships with peers and relationships with adults outside their family take on greater importance. These changes make second grade an opportune time for students to learn about being a caring and supportive friend and family member, how to show respect for others, and what it means to be emotionally and mentally healthy. Students can describe what makes a good friend and how they can be a good friend to others. In second grade, students learn to identify and describe a variety of emotions, including loss, grief, and stress. They also learn ways to manage their emotions appropriately. Students identify both positive and negative ways of dealing with stress, which helps them make healthier choices to manage stress. They understand and can explain the importance of talking with parents or trusted adults about their feelings.

Support, care, appreciation, and respect are important concepts for students in second grade to learn.

Support, care, appreciation, and respect are important concepts for students in second grade to learn. Students learn these concepts and practice related skills, such as identifying people in the community who are supportive, caring, and respectful; showing those qualities in interactions with peers, family, and trusted adults; and showing respect for the differences and similarities between and among groups and individuals. Students in second grade can describe how to work and play cooperatively and use decision-making processes to solve problems with peers and family members. They can also list healthy ways to show affection, love, friendship, and concern. By the end of second grade, students can demonstrate appropriate ways to express their wants and needs. They will also have learned how to obtain information on mental, emotional, and social health from appropriate sources (e.g., family members, health professionals, and other responsible adults) and ask for help from family members and friends.

Support for English Learners

Teachers may need to modify instruction to meet the instructional needs of English learners. Strategies to support learning may include using graphic organizers, pictures and other visual cues; summarizing or paraphrasing text; and additional time and providing opportunities for practice and interactions with classmates and the teacher. As in other subject areas, the academic language of health must be directly taught to all students, but English learners may need additional opportunities to use new words. The interpersonal-communication, decision-making, and health-promotion skills of health education provide opportunities for students to use the academic language necessary to gain access to health content. Comparing alternatives and justifying choices require the use of academic language and provide meaningful situations for students to practice using new vocabulary and content knowledge.

The Standards

The following grade-two health education content standards were adopted by the California State Board of Education on March 12, 2008.

Health Education Content Standards Grade Two	
Overarching Standards	
Standard 1: Essential Health Concepts All students will comprehend essential concepts related to enhancing health. **Standard 2: Analyzing Health Influences** All students will demonstrate the ability to analyze internal and external influences that affect health. **Standard 3: Accessing Valid Health Information** All students will demonstrate the ability to access and analyze health information, products, and services. **Standard 4: Interpersonal Communication** All students will demonstrate the ability to use interpersonal communication skills to enhance health. **Standard 5: Decision Making** All students will demonstrate the ability to use decision-making skills to enhance health. **Standard 6: Goal Setting** All students will demonstrate the ability to use goal-setting skills to enhance health. **Standard 7: Practicing Health-Enhancing Behaviors** All students will demonstrate the ability to practice behaviors that reduce risk and promote health. **Standard 8: Health Promotion** All students will demonstrate the ability to promote and support personal, family, and community health.	
Nutrition and Physical Activity	
Standard 1: Essential Concepts	
1.1.N	Classify various foods into appropriate food groups.
1.2.N	Identify the number of servings of food from each food group that a child needs daily.
1.3.N	Discuss the benefits of eating a nutritious breakfast every day.

1.4.N	List the benefits of healthy eating (including beverages and snacks).
1.5.N	Describe the benefits of drinking water in amounts consistent with current research-based health guidelines.
1.6.N	Describe how to keep food safe from harmful germs.
1.7.N	Identify a variety of healthy snacks.
1.8.N	Identify and explore opportunities outside of school for regular participation in physical activity.
1.9.N	Explain how both physical activity and eating habits can affect a person's health.
Standard 2: Analyzing Influences	
2.1.N	Discuss how family, friends, and media influence food choices.
Standard 3: Accessing Valid Information	
3.1.N	Identify resources for reliable information about healthy foods.
Standard 4: Interpersonal Communication	
4.1.N	Demonstrate how to ask family members for healthy food options.
Standard 5: Decision Making	
5.1.N	Use a decision-making process to select healthy foods.
5.2.N	Compare and contrast healthy and less-healthy food choices for a variety of settings.
5.3.N	Identify safe ways to increase physical activity.
Standard 6: Goal Setting	
6.1.N	Set a short-term goal to choose healthy foods for snacks and meals.
6.2.N	Set a short-term goal to participate daily in vigorous physical activity.
Standard 7: Practicing Health-Enhancing Behaviors	
7.1.N	Examine the importance of eating a nutritious breakfast every day.
7.2.N	Plan a nutritious meal.
7.3.N	Select healthy beverages.
7.4.N	Examine the criteria for choosing a nutritious snack.
7.5.N	Participate in physical activities with friends and family.

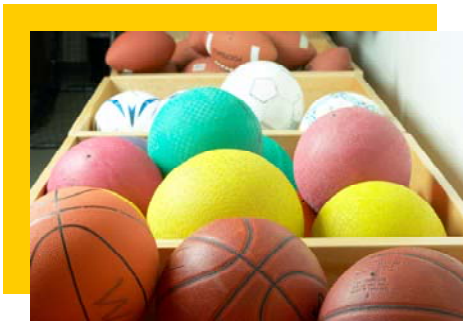
Standard 8: Health Promotion	
8.1.N	Practice making healthy eating choices with friends and family.
8.2.N	Explain to others what is enjoyable about physical activity.
Alcohol, Tobacco, and Other Drugs	
Standard 1: Essential Concepts	
1.1.A	Distinguish between helpful and harmful substances (including alcohol, tobacco, and other drugs).
1.2.A	Explain why household products are harmful if ingested or inhaled.
1.3.A	Identify that a drug is a chemical that changes how the body and brain work.
1.4.A	Explain why it is dangerous to taste, swallow, sniff, or play with unknown substances.
1.5.A	Explain why it is important to follow the medical recommendations for prescription and nonprescription medicines.
1.6.A	Identify rules for taking medicine at school and at home.
1.7.A	Identify refusal skills when confronted or pressured to use alcohol, tobacco, or other drugs (e.g., use a clear "no" statement, walk or run away, change subject, delay).
Standard 2: Analyzing Influences	
Skills for this content area are not identified until grade four.	
Standard 3: Accessing Valid Information	
3.1.A	Identify parents, guardians, and trusted adults who can provide accurate information and guidance regarding medicines.
Standard 4: Interpersonal Communication	
4.1.A	Demonstrate refusal skills to resist an offer to use drugs or inappropriate medicines.
4.2.A	Demonstrate communication skills to alert an adult about unsafe situations involving drugs or medicines.
Standard 5: Decision Making	
5.1.A	Evaluate why one person's medicines may not be safe for another person.
Standards 6-8: Skills for this content area are not identified until grade four.	

Mental, Emotional, and Social Health	
Standard 1: Essential Concepts	
1.1.M	Describe a variety of emotions.
1.2.M	Explain what it means to be emotionally or mentally healthy.
1.3.M	Explain the importance of talking with parents or trusted adults about feelings.
1.4.M	Identify changes that occur within families.
1.5.M	Identify characteristics of a responsible family member.
1.6.M	Identify feelings and emotions associated with loss or grief.
1.7.M	Discuss how to show respect for similarities and differences between and among individuals and groups.
1.8.M	List healthy ways to express affection, love, friendship, and concern.
1.9.M	Identify positive and negative ways of dealing with stress.
1.10.M	Describe how to work and play cooperatively.
1.11.M	Identify the positive ways that peers and family members show support, care, and appreciation for one another.
1.12.M	Describe the characteristics of a trusted friend and adult.
Standard 2: Analyzing Influences	
2.1.M	Identify internal and external factors that influence mental, emotional, and social health.
Standard 3: Accessing Valid Information	
3.1.M	Discuss ways to obtain information from family, school personnel, health professionals, and other responsible adults.
3.2.M	Identify people in the community who are caring, supportive, and trustworthy.
Standard 4: Interpersonal Communication	
4.1.M	Identify and demonstrate ways to express needs and wants appropriately.
4.2.M	Demonstrate how to ask for help from trusted adults or friends.
Standard 5: Decision Making	
5.1.M	Use a decision-making process for solving problems with peers and family members.

Standard 6: Goal Setting	
6.1.M	Describe how to make a commitment to be a good friend.
Standard 7: Practicing Health-Enhancing Behaviors	
7.1.M	Manage emotions appropriately in a variety of situations.
7.2.M	Show respect for individual differences.
Standard 8: Health Promotion	
8.1.M	Object appropriately to teasing of peers that is based on personal characteristics.
8.2.M	Support peers in school and community activities.

Physical Education

Overview



Elementary physical education programs emphasize the importance of physical activity and personal fitness. Fitness is developed through the activities in the daily lessons, which emphasize physical activity, continuous movement, and challenges that involve overloading the major muscle groups. Students have opportunities to understand the fitness components, fitness assessment, and the need for a lifetime of physical activity. Participation in physical activity also can be an important venue for the social, psychological, and emotional development of children.

The elementary school physical education program emphasizes the development of fundamental locomotor, nonlocomotor, and manipulative skills. The movement framework, basic biomechanical and motor learning principles (see Appendixes C, D, and E in the *Physical Education Framework for California Public Schools* [California Department of Education 2009]), and fundamental game tactics are also part of the content for elementary school students.

State law requires that schools provide students in grade two with at least 200 minutes of physical education each 10 school days (California *Education Code* Section 51210[g]). Recess and lunch time do not count toward the required instructional minutes.

The grade-two physical education model content standards are organized by five overarching content standards. Under each of the overarching standards are grade-level model content standards that provide a vision for what students in grade two need to know and be able to do. Together, the content standards represent the essential skills and knowledge that all students need to be physically active and enjoy a healthy lifestyle.

Students in grade two experience moderate but steady growth in muscular strength and endurance. They exhibit relatively high heart rates, breathing rates, and levels of flexibility. Their balance skills also show steady improvement.

What Second-Grade Students Should Know

By the end of grade one, students have learned about qualities of movement, including time and space. They can combine locomotor skills into sequences and create movement sequences to accompany music. Students can demonstrate the correct technique for catching a gently thrown ball and for manipulative skills, such as positioning the non-kicking foot correctly when kicking a ball. They have learned appropriate stretching exercises for the arms, shoulders, back, and legs. At the end of grade one, students are aware of the physical changes that occur with physical activity and can describe them. They also understand that proper body positions help prevent injury and that water, oxygen, and food act as fuel for the body.

What Students Learn in Second Grade

In second grade, students focus on mastering the correct technique for locomotor and nonlocomotor skills. They begin learning tumbling skills at a level that allows them to create their own routines and to transfer weight from one body part to another with control. By the end of the school year, students demonstrate more control when using manipulative skills and can describe the correct technique in greater detail. They learn about

the benefits of physical activity, the purpose of good nutrition, and how to solve movement problems with a partner. Students learn the terms *force*, *open space*, and *base of support* as they experience them during physical education lessons.

Overarching Standard 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.

In second grade, students practice jumping rope repeatedly, skipping, and leaping, working toward mastery of the correct technique. They also practice making smooth transitions between even-beat locomotor skills and uneven-beat locomotor skills. They use these skills in the performance of rhythmic sequences, such as simple folk dances or ribbon routines performed with and without a partner.

Students in second grade review log rolls, forward rolls, and balances while learning to transfer weight from feet to hands and hands to feet with control. They create their own tumbling routines that include body rolls and balances. They extend their jump-rope skills from jumping over a swinging rope to repeatedly jumping over a turning rope.

Students also continue to practice manipulative skills by throwing, catching, kicking, and dribbling (foot and hand) for control using a variety of objects (e.g., balls, balloons). They practice striking using a variety of implements (e.g., short-handled paddles, bats). By the end of second grade, students can demonstrate the correct form for rolling and throwing a ball for distance as well as demonstrate more control using other manipulative skills.

Overarching Standard 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities.

Standard 2 represents the cognitive knowledge that supports the skills learned in second grade in Standard 1. Students learn to describe the correct technique for manipulative skills in greater detail (e.g., the role of body parts not directly involved in catching, timing to begin the kicking motion when kicking a slowly rolling ball). In addition, they understand the purpose of using correct form (e.g., side orientation when batting). In preparation for gaining a deeper understanding of the science of movement, students in second grade learn that a wide base of support is more stable than a narrow base of support; that, other things being equal, a greater force must be applied to a ball that needs to travel a greater distance; and how to reduce the impact force from the catching or striking of a ball. In preparation for game play in later grades, students learn to describe situations where striking skills and underhand and overhand throwing skills are used. They also learn the definition for *open space*, which is the basis for offensive and defensive game strategies learned in fourth grade and beyond.

Overarching Standard 3: Students assess and maintain a level of physical fitness to improve health and performance.

Students in second grade develop muscular strength and endurance through curl-ups, modified push-ups, forward and side lunges, and squats. They learn the correct form for stretching the hamstrings, quadriceps, shoulders, biceps, and triceps to maintain their flexibility. In second grade, students start measuring their own fitness levels and monitoring their personal improvement. They also increase the amount of time they spend performing moderate to vigorous physical activities three or four days a week.

In second grade, students start measuring their own fitness levels and monitoring their personal improvement.

Overarching Standard 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.

Standard 4 provides the cognitive information to support the fitness activities described in Standard 3. In second grade, students learn about the benefits of physical activity for maintaining good health. They also learn about opportunities to participate in physical activity outside school (e.g., walking a dog, playing physically interactive electronic games, raking leaves, joining a sports team).

Students learn the purpose of increasing exercise intensity and duration as well as the reason for warming up muscles before they are stretched. They learn the names of the muscles that they strengthen and stretch, as well as the benefits of health-related fitness. The purpose of good nutrition, with a focus on nutritional choices and water intake, completes the student's understanding of fitness concepts.

Overarching Standard 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity.

In second grade, students participate in a variety of group settings. Encouraging others, demonstrating cooperation, and avoiding interference with others are the emphasis. Students move from the sense of self in isolation and begin to embrace the concept of partners working together to solve movement problems. Students are better able to solve problems that arise when they work in partners or groups if they have had opportunities to practice problem solving in simulations designed by the teacher. They begin to accept responsibility for their own behavior in a group activity. This grade level is also when students' growing awareness of others helps them promote respect for others and for equipment during physical activities.

Support for English Learners

The goal of physical education programs in California is to ensure universal access to high-quality curriculum and instruction so that every student can meet or exceed the state's physical education model content standards. To reach that goal, teachers design instruction to meet the instructional needs of each student. Different instructional approaches may be needed for English learners to gain access to physical education content. Specially designed academic instruction in English (SDAIE), also known as sheltered instruction, provides students with a variety of interactive and multimodal means to obtain information. With sheltered instruction techniques, teachers modify the language demands of the lesson. Cooperative learning with high levels of interaction may also be an effective strategy. (See the *Physical Education Framework for California Public Schools* [California Department of Education 2009], Chapter 7, "Universal Access," for more information.)

Physical education instruction can also provide opportunities for students to develop their English-language skills as vocabulary is developed through physical activity instruction (e.g., "Stand on the blue square"; "Move around the cone") and demonstrations of locomotor movements that include labeling of the movement (e.g., the teacher says, "Skip to the line," and students demonstrate skipping).

Support for Students with Special Needs

Successful participation in physical activities by students with special needs depends on the teacher's skill and training in providing instruction and support to all students. When systematically planned differentiation strategies are used, students with special needs can benefit from appropriately challenging curriculum and instruction. The strategies for differentiating instruction include pacing, complexity, depth, and novelty. Despite the modifications made, however, the focus is to always help students meet the physical education model content standards to the best of their ability.

In helping students achieve at their grade level, teachers use instructional resources aligned with the standards and provide additional learning and practice opportunities. Some students with 504 Plans or individualized education programs (IEPs) are eligible for special education services in physical education. A student's 504 Plan or IEP often includes suggestions for techniques to ensure that the student has full access to a program designed to provide him or her with appropriate learning opportunities and that uses instructional materials and strategies to best meet his or her needs. The 504 Plan or IEP also determines which services or combination of services best met the student's need. See the *Physical Education Framework for California Public Schools* [California Department of Education 2009], Chapter 7, "Universal Access," for more information. The framework is posted at http://www.cde.ca.gov/ci/pe/cf/index.asp.

The Standards

The following grade-two physical education model content standards were adopted by the California State Board of Education on January 12, 2005.

Physical Education Model Content Standards Grade Two	
STANDARD 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.	
Movement Concepts	
1.1	Move to open spaces within boundaries while traveling at increasing rates of speed.
Body Management	
1.2	Transfer weight from feet to hands and from hands to feet, landing with control.
1.3	Demonstrate balance on the ground and on objects, using bases of support other than both feet.
1.4	Create a routine that includes two types of body rolls (e.g., log roll, egg roll, shoulder roll, forward roll) and a stationary balance position after each roll.
Locomotor Movement	
1.5	Jump for distance, landing on both feet and bending the hips, knees, and ankles to reduce the impact force.

1.6	Skip and leap, using proper form.
Manipulative Skills	
1.7	Roll a ball for distance, using proper form.
1.8	Throw a ball for distance, using proper form.
1.9	Catch a gently thrown ball above the waist, reducing the impact force.
1.10	Catch a gently thrown ball below the waist, reducing the impact force.
1.11	Kick a slowly rolling ball.
1.12	Strike a balloon consistently in an upward or forward motion, using a short-handled paddle.
1.13	Strike a ball with a bat from a tee or cone, using correct grip and side orientation.
1.14	Hand-dribble, with control, a ball for a sustained period.
1.15	Foot-dribble, with control, a ball along the ground.
1.16	Jump a rope turned repeatedly.
Rhythmic Skills	
1.17	Demonstrate a smooth transition between even-beat locomotor skills and uneven-beat locomotor skills in response to music or an external beat.
1.18	Perform rhythmic sequences related to simple folk dance or ribbon routines.
1.19	Perform with a partner rhythmic sequences related to simple folk dance or ribbon routines.
STANDARD 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities.	
Movement Concepts	
2.1	Define *open space*.
2.2	Explain how to reduce the impact force of an oncoming object.
Body Management	
2.3	Explain the importance of a wide rather than a narrow base of support in balance activities.
2.4	Explain why one hand or foot is often preferred when practicing movement skills.
Locomotor Movement	
2.5	Compare and contrast locomotor movements conducted to even and uneven beats.

Manipulative Skills	
2.6	Identify opportunities to use underhand and overhand movement (throw) patterns.
2.7	Identify different opportunities to use striking skills.
2.8	Compare the changes in force applied to a ball and the ball speed when rolling a ball for various distances.
2.9	Explain key elements of throwing for distance.
2.10	Identify the roles of body parts not directly involved in catching objects.
2.11	Identify when to begin the kicking motion when kicking a slowly rolling ball.
2.12	Identify the different points of contact when striking a balloon upward and striking a balloon forward.
2.13	Explain the purpose of using a side orientation when striking a ball from a batting tee.
2.14	Differentiate the effects of varying arm and hand speeds when hand-dribbling a ball.
STANDARD 3: Students assess and maintain a level of physical fitness to improve health and performance.	
Fitness Concepts	
3.1	Participate in enjoyable and challenging physical activities for increasing periods of time.
Aerobic Capacity	
3.2	Participate three to four times each week, for increasing periods of time, in moderate to vigorous physical activities that increase breathing and heart rate.
Muscular Strength/Endurance	
3.3	Perform abdominal curl-ups, modified push-ups, oblique curl-ups, forward and side lunges, squats, and triceps push-ups from a chair or bench to enhance endurance and increase muscle efficiency.
3.4	Traverse the overhead ladder one bar at a time.
Flexibility	
3.5	Demonstrate the proper form for stretching the hamstrings, quadriceps, shoulders, biceps, and triceps.
Body Composition	
3.6	Engage in moderate to vigorous physical activity for increasing periods of time.

Assessment	
3.7	Measure improvements in individual fitness levels.
STANDARD 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.	
Fitness Concepts	
4.1	Explain the fuel requirements of the body during physical activity and inactivity.
4.2	Describe the role of moderate to vigorous physical activity in achieving or maintaining good health.
4.3	Identify ways to increase time for physical activity outside of school.
4.4	Discuss how body temperature and blood volume are maintained during physical activity when an adequate amount of water is consumed.
4.5	Explain how the intensity and duration of exercise, as well as nutritional choices, affect fuel use during physical activity.
Aerobic Capacity	
4.6	Compare and contrast the function of the heart during rest and during physical activity.
4.7	Describe the relationship between the heart and lungs during physical activity.
4.8	Compare and contrast changes in heart rate before, during, and after physical activity.
Muscular Strength/Endurance	
4.9	Describe how muscle strength and muscle endurance enhance motor skill performance.
4.10	Identify muscles being strengthened during the performance of particular physical activities.
4.11	Identify which activities or skills would be accomplished more efficiently with stronger muscles.
4.12	Explain the role that weight-bearing activities play in bone strength.
Flexibility	
4.13	Identify the muscles being stretched during the performance of particular physical activities.
4.14	Explain why it is safer to stretch a warm muscle rather than a cold muscle.
Body Composition	
4.15	Describe the differences in density and weight between bones, muscles, organs, and fat.

STANDARD 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity.	
Self-Responsibility	
5.1	Participate in a variety of group settings (e.g., partners, small groups, large groups) without interfering with others.
5.2	Accept responsibility for one's own behavior in a group activity.
Social Interaction	
5.3	Acknowledge one's opponent or partner before, during, and after an activity or game and give positive feedback on the opponent's or partner's performance.
5.4	Encourage others by using verbal and nonverbal communication.
5.5	Demonstrate respect for self, others, and equipment during physical activities.
5.6	Demonstrate how to solve a problem with another person during physical activity.
Group Dynamics	
5.7	Participate positively in physical activities that rely on cooperation.

World Languages

Overview

To succeed in the twenty-first century, today's students need to develop linguistic and cultural literacy, including academic knowledge and proficiency in English and in world languages and cultures. California schools teach a wide variety of languages spoken throughout the world, as well as American Sign Language (ASL). Because every language is a "foreign" language to those who do not know it, the term used in this document and in the standards is "world" languages.

Students no longer simply learn about languages and cultures; rather, they are provided with opportunities to learn languages and cultures through participation in communicative interactions that prepare them for real-world language use and global citizenship. Language learning needs to be a lifelong endeavor.

What Second-Grade Students Should Know

Although world language instruction is not a required subject for the elementary grades, instruction in world languages is encouraged to begin as early as possible. Some second-grade students may have participated in language instruction prior to second grade, but most will have had no formal instruction in another language. However, because of the diversity of students in California, most classrooms will include students who bring a rich variety of languages and cultures with them. Students may have learned a heritage language in their homes, be recent immigrants, or have acquired the ability to understand and/or produce one or more languages through contact in their communities or abroad.

What Students Learn in Second Grade

The variety of languages and cultures in California classrooms provides opportunities for students to learn about and celebrate the contributions of many people to the local community and reinforce lessons from second grade history–social science.

California schools offer a variety of language programs, some beginning in elementary school, continuing in middle school, and most typically in comprehensive high school. Elementary programs in languages include the following types:

- Immersion—a program in which at least 50 percent of the core curriculum instruction is in the target language.
- Foreign Language in the Elementary School (FLES)—a program that provides instruction for a minimum of 70 minutes a week. The goal is to develop proficiency in language and culture.
- Foreign Language Experience (FLEX)—a program that exposes students to the study of a language or languages and cultures to motivate them to pursue further study of a language.

These programs differ substantially in the number of hours allocated for instruction. All programs need to be age-appropriate on order to address students' cognitive, emotional, and social needs. Programs for heritage and native speakers may include immersion, specialized courses designed to meet learner needs, and accommodations for these learners in the world language classroom.

Organization of the Standards

The world language content standards, adopted by the State Board of Education in 2009, represent a strong consensus that the study of a wide variety of world languages and cultures is part of the core curriculum. The standards present the knowledge, skills, and abilities that all learners of a world language should acquire in the California public school system.

Because of the considerable number of languages spoken in California schools, the world language content standards were developed to accommodate all languages and the various stages a learner goes through to become proficient. Therefore, the standards are not language-specific. In addition, because of the various levels of student proficiency and the variety of California's language programs, the world language content standards are not designated for specific grade levels; instead, they describe levels of linguistic and cultural acquisition. The standards provide an organizing principle to ensure the continuous development of student proficiency, regardless of the multiple points of entry and exit from California's language programs. For these reasons, this section is also general and not specific to second grade, focusing on the organization of the world language content standards and the beginning level of language proficiency.

The standards are separated into five categories and four stages or levels of proficiency. The five categories are taught together and in practice merge into seamless instruction within the various stages. The categories are Content, Communication, Cultures, Structures, and Settings.

Content

The content of the language course includes vocabulary from a wide variety of topics that are age- and stage-appropriate. This content enables students to make connections and reinforce knowledge from other areas of the curriculum and to participate in everyday social interactions in the target language. As students develop their ability to communicate in the target language and culture, they address topics that increase in complexity.

Communication

Real-world communication occurs in a variety of ways. It may be interpersonal, in which listening, reading, viewing, speaking, signing, and writing occur as a shared activity among language users. It may be interpretive, in which language users listen, view, and read using knowledge of cultural products, practices, and perspectives. Or it may be presentational, in which speaking, signing, and writing occur. Students actively use language to transmit meaning while responding to real situations.

Cultures

To understand the connection between language and culture, students learn how a culture views the world. Students understand the ideas, attitudes, and values that shape that culture. These shared, common perspectives, practices, and products incorporate not only formal aspects of a culture—such as contributions of literature, the

arts, and science—but also the daily living practices, shared traditions, and common patterns of behavior acceptable to a society. Students acquire the ability to interact appropriately with individuals in the target culture, to communicate successfully, and to make connections and comparisons between languages and cultures.

Structures

Languages vary considerably in the structures that learners use to convey meaning; therefore, the curriculum will feature language-specific structures essential to accurate communication. As they acquire vocabulary in the target language, students grasp the associated concepts and understand the structures of the language to convey meaning. Students learn patterns in the language system, which consists of grammar rules and vocabulary and elements such as gestures and other forms of nonverbal communication. A language system also includes discourse, whereby speakers learn what to say to whom and when. As they progress in proficiency with language, students use linguistically and grammatically appropriate structures to comprehend and produce messages. Students identify similarities and differences among the languages they know.

Settings

For students to communicate effectively, they use elements of language appropriate for a given situation. Language conveys meaning best when the setting, or context, in which it is used is known. This knowledge of context assists students not only in comprehending meaning but also in using language that is culturally appropriate. Context also helps define and clarify the meaning of language that is new to the learner. Understanding social linguistic norms will assist learners in communicating effectively in real-world encounters.

Stages of Proficiency

The world language content standards describe four levels of proficiency for each of the five categories. These levels of proficiency are based on the stages of the Language Learning Continuum, a framework developed by the College Board to indicate growth in linguistic and cultural proficiency. The stages provide benchmarks of progress:

- Stage I (Formulaic): Learners understand and produce signs, words, and phrases. (*Note:* It is common in the elementary school context for nonheritage learners to remain in Stage I for an extended period of time.)
- Stage II (Created): Learners understand and produce sentences and strings of sentences.
- Stage III (Planned): Learners understand and produce paragraphs and strings of paragraphs.
- Stage IV (Extended): Learners understand and produce cohesive texts composed of multiple paragraphs.

The Language Learning Continuum also includes Stage V (Tailored) proficiency, which represents performance typically achieved through university-level study. Stage V is not included in the standards.

The Standards

The world language content standards, adopted by the California State Board of Education on January 7, 2009, are organized by stage, not by grade level. Most second-grade students would be at Stage I, so only those standards are listed below. For a complete list of the standards for all four stages, view the world language content standards posted on the CDE Content Standards Web page (http://www.cde.ca.gov/be/st/ss/).

World Language Content Standards Stage I	
Content	
1.0	Students acquire information, recognize distinctive viewpoints, and further their knowledge of other disciplines.
1.1	Students address discrete elements of daily life, including: a. Greetings and introductions b. Family and friends c. Pets d. Home and neighborhood e. Celebrations, holidays, and rites of passage f. Calendar, seasons, and weather g. Leisure, hobbies and activities, songs, toys and games, sports h. Vacations and travel, maps, destinations, and geography i. School, classroom, schedules, subjects, numbers, time, directions j. Important dates in the target culture k. Jobs l. Food, meals, restaurants m. Shopping, clothes, colors, and sizes n. Parts of the body, illness o. Technology
Communication	
1.0	Students use **formulaic language** (learned words, signs [ASL], and phrases).
1.1	Engage in oral, written, or signed (ASL) conversations.
1.2	Interpret written, spoken, or signed (ASL) language.
1.3	Present to an audience of listeners, readers, or ASL viewers.
Functions	
1.4	List, name, identify, enumerate.
1.5	Identify learned words, signs (ASL), and phrases in authentic texts.

1.6	Reproduce and present a written, oral, or signed (ASL) product in a culturally authentic way.
Cultures	
1.0	Students use appropriate responses to rehearsed cultural situations.
1.1	Associate products, practices, and perspectives with the target culture.
1.2	Recognize similarities and differences within the target cultures and among students' own cultures.
1.3	Identify cultural borrowings.
Structures	
1.0	Students use orthography, phonology, or ASL parameters to understand words, signs (ASL), and phrases in context.
1.1	Use orthography, phonology, or ASL parameters to produce words or signs (ASL) and phrases in context.
1.2	Identify similarities and differences in the orthography, phonology, or ASL parameters of the languages the students know.
Settings	
1.0	Students use language in highly predictable common daily settings
1.1	Recognize age-appropriate cultural or language-use opportunities outside the classroom.

School Library

Overview

School libraries have evolved from having a focus on print materials to providing a rich selection of resources, both print and digital; from students learning how to search a card catalog to learning strategies for searching a variety of digital resources and using Web browsers; from basic literacy to information literacy (the ability to access, evaluate, and use information effectively). However, the skills learned from print transcend their use in books alone. "Students who understand systems of text organization are better equipped to use the Internet as it is today. Most notably, they expect worthy resources to have order. This may drive them to probe complex web sites, which, for all their bells and whistles, are fundamentally arranged like reference books, with A-Z lists and topical divisions" (Preston 2009, 80).

School libraries have evolved from having a focus on print materials to providing a rich selection of resources, both print and digital…

California *Education Code* Section 18100 reinforces the essential role of school libraries:

> The governing board of each school district shall provide school library services for the pupils and teachers of the district by establishing and maintaining school libraries or by contractual arrangements with another public agency.

The following describes what second-grade students should know and be able to do as a result of having an effective school library program at their school.

What Second-Grade Students Should Know

In earlier grades, students learned the basics of information literacy by asking and answering questions that connected to a topic. They identified types of everyday print and digital materials such as storybooks, poems, newspapers, and signs. They learned where the library is located on campus, and they checked out materials.

First-grade students identified the parts of a book in print and digital formats, comparing and contrasting the differences. Students described the roles of authors and illustrators. They identified digital devices and parts of a computer and know how to turn computers on and off. Students learned that the Internet allows a computer to be connected to the rest of the world. They connected information found in print, media, and digital resources to prior knowledge and organized information into a logical sequence.

In first grade, students alphabetized beyond the first letter to locate materials in the school library. Students read poems, rhymes, and songs, as well as a good representation of grade-level-appropriate text. They shared information orally and creatively with their peers.

What Students Learn in Second Grade

As second-grade students' reading skills improve, they read increasingly complex material and a wide representation of grade-level-appropriate text, including classic and contemporary literature, magazines, newspapers, online information, and informational text. Second-grade students become familiar with types of

everyday print and nonprint materials and identify these materials using academic vocabulary. Students can identify parts of a book, such as the table of contents, index, glossary, and dedication.

Second-grade students recognize the need for information by identifying a simple problem or question. They develop questions that define the scope of the investigation and connect to the topic. Students organize prior knowledge of a subject, problem, or question and identify other sources that may provide an answer. In second grade, students understand the concept of key words and perform a simple key-word search using an approved search engine or database. Students know that the purpose of advertisements, including Internet pop-ups, is to sell something.

Second-grade students are familiar with the procedures for borrowing materials from the school library and caring for library resources, including technology devices. Students locate age-appropriate fiction and nonfiction materials in the library.

In second grade, students identify trusted places in the community where they may seek information, such as at home, school, or in the library, and trusted people to ask for assistance, such as family members, their classroom teacher, or a teacher librarian. Students know about the school's acceptable-use policy and adhere to privacy and safety guidelines when using the Internet at school and at home.

In second grade, students draw meaning from illustrations, photographs, diagrams, charts, graphs, maps, and captions. They identify and use nonfiction text structures, such as main idea and supporting details, cause and effect, compare and contrast, and sequencing. They identify the main ideas of a text, review facts and details to organize ideas for notetaking, and share the source from which the information was obtained. Students begin to recognize how media affects the telling of a story and transmission of information.

Second-grade students present information with pictures, bar graphs, numbers, or written statements to convey the main idea and supporting details about a topic. They communicate with other students to explore options for addressing a problem.

An added benefit for students is when the classroom teacher and school librarian collaborate to plan and implement a lesson that addresses different content areas. An example of a possible lesson that includes the health, English language arts, and school library contents standards is provided below.

Sample Collaborative Lesson

Standards:

Health 1.7.N	Identify a variety of healthy snacks.
Health 3.1.N	Identify resources for reliable information about healthy food options.
ELA RI.9	Compare and contrast the most important points presented by two texts on the same topic.
SLS 1.3.a	Identify two sources of information that may provide an answer to the question(s).
SLS 2.1b	Review facts and details to clarify and organize ideas for notetaking.
SLS 3.2.a	Present information drawn from two sources.
SLS 4.2.a	Share the source of the information obtained.

Students learn about the benefits of healthy eating and, as a group, identify several snacks that they believe are healthy. From this list, each student chooses one type of snack to investigate to determine whether it is healthy and to learn more about it. Students are given a graphic organizer to take notes and to cite the sources they use.

In the library, the teacher librarian describes print and digital resources that are in the library collection, selected Internet sites, and subscription databases and explains which resources have reliable information on healthy foods. The student selects two sources, searches the sources for facts and details about their snack, and takes notes.

Each student prepares a short oral presentation on their snack, including facts and details, and cites at least two sources of information that were used. Students may use a picture, graph, or other illustration to convey the information.

The Standards

The model school library standards for students incorporate information literacy (the ability to access, evaluate, and use information effectively) and digital literacy (the ability to use digital technology, communications tools, or networks to access, manage, integrate, evaluate, create, and communicate) to enable students to function in a knowledge-based economy and society. They describe what students should know and be able to do by the end of second grade.

The standards are organized around four overarching concepts. Detailed standards describe what each student is expected to have successfully achieved at the end of the school year. In addition, students are expected to have mastered the standards for previous grades and continue to use those skills and knowledge as they advance in school.

School library standards are aligned with many of the academic content standards and are best learned through the content. The following grade-two model school library content standards were adopted by the California State Board of Education on September 16, 2010.

Model School Library Content Standards Grade Two	
1. Students access information. The student will access information by applying knowledge of the organization of libraries, print materials, digital media, and other sources.	
1.1 Recognize the need for information:	
1.1.a	Identify a simple problem or question that needs information.
1.1.b	Organize prior knowledge of a subject, problem, or question (e.g., create a chart).
1.2 Formulate appropriate questions:	
1.2.a	Develop questions that define the scope of investigation and connect them to the topic.

1.2.b	Understand the concept of key words.
1.3 Identify and locate a variety of resources online and in other formats by using effective search strategies:	
1.3.a	Identify two sources of information that may provide an answer to the question(s).
1.3.b	Independently check out and care for a variety of library resources, including technology devices.
1.3.c	Identify whom to ask for help when using the Internet at the school library or in the classroom.
1.3.d	Locate age-appropriate fiction and nonfiction print, media, and digital resources in the school library.
1.3.e	Alphabetize beyond the initial letter to locate resources.
1.3.f	Identify types of everyday print, media, and digital resources by using academic vocabulary (e.g., biography, periodical, database, fiction, nonfiction, primary source).
1.3.g	Identify the parts of a book (print and digital): table of contents, glossary, index, and dedication.
1.3.h	Use graphic elements and navigational tools (e.g., buttons, icons, fields) of computer software.
1.4 Retrieve information in a timely, safe, and responsible manner:	
1.4.a	Identify trusted places in the community where students can seek information (e.g., home, school, museums, governmental agencies, public libraries).
1.4.b	Identify trusted and knowledgeable people to ask for assistance with an information search (e.g., teacher, teacher librarian, family member).
1.4.c	Connect prior knowledge to the information and events in text and digital formats.
1.4.d	Identify when it is necessary to ask an appropriate adult for assistance in seeking information in both digital and print environments.
1.4.e	Identify main ideas of a text in preparation for notetaking.
1.4.f	Identify nonfiction text structures in print and digital formats (e.g., main idea and supporting details, cause and effect, compare and contrast, sequencing).
2. Students evaluate information. The student will evaluate and analyze information to determine what is appropriate to address the scope of inquiry.	

2.1 Determine relevance of information:	
2.1.a	Draw meaning from illustrations, photographs, diagrams, charts, graphs, maps, and captions.
2.1.b	Review facts and details to clarify and organize ideas for notetaking.
2.1.c	Understand that the Internet contains accurate and inaccurate information.
2.2 Assess the comprehensiveness, currency, credibility, authority, and accuracy of resources:	
2.2.a	Identify the purpose of an advertisement, including Internet pop-ups.
2.2.b	Demonstrate the ability to distinguish between information and advertisements.
2.3 Consider the need for additional information:	
2.3.a	Recognize the need for additional information to answer questions posed by others.
3. Students use information. The student will organize, synthesize, create, and communicate information.	
3.1 Demonstrate ethical, legal, and safe use of information in print, media, and online resources:	
3.1.a	Demonstrate proper procedures and good citizenship in the library and online.
3.1.b	Recognize that both the author and illustrator have ownership of their own creation.
3.1.c	Demonstrate basic knowledge of the district or school's acceptable-use policy.
3.1.d	Understand that just as there are strangers in the real world, there are also strangers on the Internet.
3.1.e	Adhere to privacy (nondisclosure of personal or family information) and safety guidelines (laws and policies) when using the Internet at school or home.
3.2 Draw conclusions and make informed decisions:	
3.2.a	Present information drawn from two sources.
3.3 Use information and technology creatively to answer a question, solve a problem, or enrich understanding:	
3.3.a	Present information to convey the main idea and supporting details about a topic.
3.3.b	Record and present information with pictures, bar graphs, numbers, or written statements.
3.3.c	Communicate with other students to explore options to a problem or an ending to a story.
3.3.d	Use a diagram or chart to illustrate a presentation.

4. Students integrate information literacy skills into all areas of learning. The student will independently pursue information to become a lifelong learner.	
4.1 Read widely and use various media for information, personal interest, and lifelong learning:	
4.1.a	Read a good representation of grade-level-appropriate text, making progress toward the goal of reading 500,000 words annually by grade four (e.g., classic and contemporary literature, magazines, newspapers, online information).
4.1.b	Select and use resources in a variety of formats to support personal interests, recreational goals, and pursuits.
4.2 Seek, produce, and share information:	
4.2.a	Share the source of the information obtained.
4.2.b	Inform others creatively when new information about an area of interest is learned.
4.3 Appreciate and respond to creative expressions of information:	
4.3.a	Portray information visually to convey the main idea and supporting details about a topic.
4.3.b	Understand how media affects the telling of a story and transmission of information (e.g., illustrations, photographs, music, video).