

# California Education and the Environment Initiative

Increasing Environmental Literacy for K–12 Students...

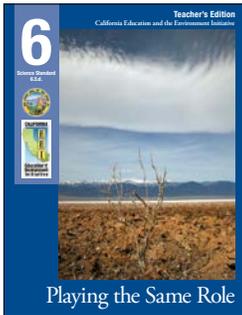
Because the Future is in Their Hands



## TEACH COMMON CORE STANDARDS WITH THE EEI CURRICULUM

Created with your needs in mind, this document shows the correlation between the EEI Curriculum and the California Common Core State Standards. By teaching the EEI unit lessons in your classroom, you will be simultaneously addressing the Common Core standards depicted in this guide.

### 6.5.d.—Playing the Same Role



In this unit, students learn that different kinds of organisms may play similar ecological roles in similar biomes. Students will compare and contrast the roles of producers, consumers, and decomposers across different biomes, and explore the flow of energy and matter in food webs. The unit closes by exploring four case studies in which humans introduce species from one ecosystem into other ecosystems. The cases illustrate the effects on organisms with similar roles in different biomes.

		RI.6.2	RI.6.4	RI.6.7	RH.6–8.4	RH.6–8.7	RST.6–8.1	RST.6–8.4	RST.6–8.7	W.6.1	W.6.2	W.6.4	W.6.7	SL.6.1	SL.6.2	SL.6.4	SL.6.5	L.6.1	L.6.2	L.6.3	
California Connections							✓	✓	✓												
LESSONS	1	✓	✓	✓	✓									✓	✓			✓	✓	✓	
	2		✓	✓	✓							✓		✓	✓			✓	✓	✓	
	3	✓	✓		✓							✓		✓	✓	✓	✓	✓	✓	✓	
	4		✓	✓	✓						✓	✓		✓	✓		✓	✓	✓		
	5		✓	✓	✓					✓	✓	✓	✓	✓	✓	✓		✓			
Traditional Assessment		✓	✓	✓							✓	✓									
Alternative Assessment			✓	✓		✓		✓				✓									
		<b>COMMON CORE STANDARDS</b>																			

**Note:** For your reference, the list of California Common Core State Standards abbreviations is on the following page.

## Using the EEI-Common Core Correlation Matrix

The matrix on the front page identifies a number of Common Core standards that are supported by this EEI unit. However, the check marks in the matrix do not necessarily signify that the Common Core standards checked will be taught to mastery by using this EEI unit alone. Teachers are encouraged to select which Common Core standards they wish to emphasize, rather than teaching to every indicated standard. By spending more time on selected standards, students will move toward greater Common Core proficiency in comprehension, critical thinking and making reasoned arguments from evidence. Teaching this EEI unit will provide opportunities for teachers to implement the shift in instructional practice necessary for full Common Core implementation.

## California Common Core State Standards Abbreviations

- **CCSS:** California Common Core State Standards
- **L:** Language Standards
- **RI:** Reading Standards for Informational Text
- **RH:** Reading Standards for Literacy in History/Social Studies
- **RST:** Reading Literacy Standards in Science and Technical Subjects
- **SL:** Speaking and Listening Standards
- **W:** Writing Standards

**Note:** Since each Common Core standard includes a breadth of skills, in this correlation, the portion of the standard description that is featured in the Common Core Standards Applications is cited, using “...” to indicate omitted phrases. For a list of the complete standard descriptions, please see the Common Core Reference Pages located on pages 19–20 of this document.

## A Note about Speaking and Listening Common Core Standards

Many of the EEI units provide various learning structures, materials, and groupings that lead toward students working in pairs or small groups to discuss concepts and ideas. This supports the skill in Speaking and Listening Standard 1 “Participate effectively in a range of collaborative discussions (one-on-one, groups...) with diverse partners.” With prior instruction in collaborative discussion techniques, students can be placed in pairs or small groups to discuss the lesson topics. To aid in teacher planning, the lessons are listed below which include tasks for whole class, pairs/partners, and/or small groups:

- **Lesson 1:** Whole class, pairs
- **Lesson 2:** Whole class, large groups, individual
- **Lesson 3:** Whole class, large groups, pairs
- **Lesson 4:** Whole class, small groups, individual
- **Lesson 5:** Whole class, large groups, individual

## National Geographic Resources

- **World Biomes 1–3** posters (Lesson 1)
- **Political** wall map (Lesson 2)

## Unit Assessment Options

Assessments	Common Core Standards Applications
<b>Traditional Assessment</b>	
<p><b>Playing the Same Role</b> (Traditional Unit Assessment Master) is comprised of multiple-choice, matching, and short-answer questions that assess students' achievement of the unit's learning objectives.</p>	<p><b>RI.6.2:</b> Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings...</p> <p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>W.6.2:</b> Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p>
<b>Alternative Assessment</b>	
<p><b>Comparing Biomes</b> (Alternative Unit Assessment Master) has students select two biomes and complete a chart that describes the biomes' climate, typical vegetation, and sample producers, consumers, and decomposers.</p>	<p><b>RH.6–8.7:</b> Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings...</p> <p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>RST.6–8.7:</b> Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p>

## Lesson 1: Here a Pig, There a Pig...

Students read about pigs as adaptable organisms that occupy most of the continents on Earth and have many uses to humans. They define the term “biome,” examine posters depicting nine of Earth’s terrestrial biomes, and work in pairs to answer basic questions about biomes.



## National Geographic Resources

- World Biomes 1–3 posters

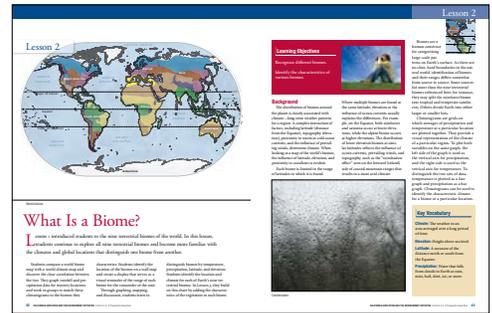
Use this correlation in conjunction with the **Procedures** located on pages 36–37 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

Student Tasks	Common Core Standards Applications
<p><b>Vocabulary Development:</b> For depth of understanding, vocabulary may be featured within the context of the unit instead of or in addition to the beginning of the lesson.</p> <p><i>Tip: If Dictionary Workbooks need to be reused from year to year, students should not write in them.</i></p>	<p><b>RH.6–8.4:</b> Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text...</p>
<p><b>Step 1:</b> Conduct a class discussion on the different ecosystems they’re familiar with around the world. Remind the students to consider living and nonliving parts of those ecosystems, then draw attention to the <b>World</b> wall map and have them show where their ecosystem is located.</p>	<p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Step 2:</b> Read <i>California Connections: A Pig’s Tale</i> (Student Edition, pages 2–5) as a class. Then ask students why pigs can live in many different places, but why they are not found in Antarctica.</p> <p><i>Suggestion: Have students read in pairs, alternating by paragraph, then have them answer the questions together, then share out in front of the class.</i></p> <p><i>Suggestion: Refer to the Reading California Connections Using a Common Core Reading and Writing Focus on pages 14–18 to view specific suggestions for integrating Common Core standards while reading the selection not only for content, but for text structure as well.</i></p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>RI.6.2:</b> Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p>

Student Tasks	Common Core Standards Applications
<p><b>Step 2 (Continued):</b></p>	<p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Steps 3 and 4:</b> Using the <b>World Biomes</b> posters, conduct a class discussion on what organisms might live in the chaparral and deciduous forest biomes, asking them the prompt questions on page 36 of the <b>Teacher’s Edition</b>.</p>	<p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Step 5:</b> To close, students answer the questions in <b>Biome Basics</b> (Student Workbook, page 2) with a partner. They may refer to the <b>World Biomes</b> posters as well as <b>California Connections: A Pig’s Tale</b> to help them with their answers.</p> <p><b>Tip:</b> If <b>Student Workbooks</b> need to be reused from year to year, students should not write in them. Some strategies teachers use to preserve the workbooks are:</p> <ul style="list-style-type: none"> <li>■ Have students use binder paper or other lined or unlined paper.</li> <li>■ Have students use a sheet protector over the page and write with a whiteboard marker.</li> <li>■ Do together as a class on a projector or chart paper.</li> <li>■ Project the digital fill-in version and do together as a class.</li> <li>■ Students use digital devices to fill in the digital version found on the website.</li> <li>■ Make student copies when necessary.</li> </ul>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.2:</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>L.6.3:</b> Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>

## Lesson 2: What Is a Biome?

Students explore the nine terrestrial biomes by interpreting climatograms (temperature and precipitation graphs) and matching them with the appropriate biome descriptions. They compare world climate and world biomes maps and discover their correlation. They learn that climate, latitude, and elevation distinguish biomes from one another.



## National Geographic Resources

- Political wall map

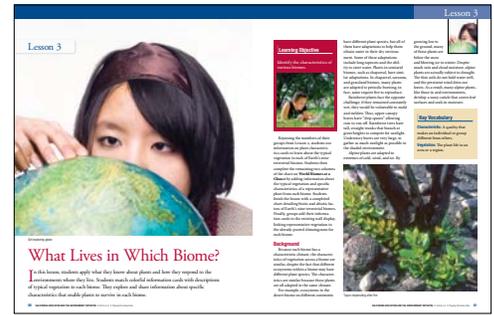
Use this correlation in conjunction with the **Procedures** located on pages 46–47 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

Student Tasks	Common Core Standards Applications
<p><b>Vocabulary Development:</b> For depth of understanding, vocabulary may be featured within the context of the unit instead of or in addition to the beginning of the lesson.</p>	<p><b>RH.6–8.4:</b> Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text...</p>
<p><b>Step 1:</b> Using the <b>World Biomes Display</b>, have students name the nine terrestrial biomes they studied.</p> <p><b>Suggestion:</b> Use this as a warm-up exercise as students are preparing for class to start. A word match might help, as well.</p>	<p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Steps 2 and 3:</b> Have students compare the <b>Earth Climate Zones</b> to the <b>World Biomes</b> poster, and what the relationship is between the two maps. After that, walk students through how to use the <b>Climatogram: San Diego, California</b> (Visual Aid #2) including the precipitation scale on the left, and the temperature scale on the right.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>

Student Tasks	Common Core Standards Applications
<p><b>Steps 4 and 5:</b> Organize students into groups of nine, then have them use <b>Identify the Mystery Biomes</b> (Student Workbook, pages 3–11) and have each student select a climatogram. Using the <b>Biome Cards</b> (Information Cards #1–9), have students figure out which one best matches the climate clues about each biome. After reviewing the answers as a class, have students complete the first two columns of <b>World Biomes at a Glance</b> (Student Workbook, pages 12–16) in their groups.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.2:</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>L.6.3:</b> Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p>

## Lesson 3: What Lives in Which Biome?

Students review the roles of plants in an ecosystem, then study cards showing plant characteristics for each of the nine terrestrial biomes. Working in groups, they note typical vegetation and characteristics that enable plants to survive in each biome.



Use this correlation in conjunction with the **Procedures** located on pages 84 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

Student Tasks	Common Core Standards Applications
<p><b>Vocabulary Development:</b> For depth of understanding, vocabulary may be featured within the context of the unit instead of or in addition to the beginning of the lesson.</p>	<p><b>RH.6–8.4:</b> Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text...</p>
<p><b>Steps 1 and 2:</b> Conduct a group discussion using the <b>World Biomes Display</b> as well as the prompt questions on page 84 of the <b>Teacher’s Edition</b>.</p> <p><b>Suggestion:</b> Have students work in pairs to answer the prompt questions, then conduct a class discussion based on their answers.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.3:</b> Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p><b>RI.6.2:</b> Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Steps 3 and 4:</b> Organize the students into the same groups they were in for Lesson 2. Using <b>World Biomes at a Glance</b> (Student Edition, pages 12–16), have students complete the third and fourth columns based on the <b>Plant Characteristics Cards</b> (Information Cards #19–27), including two details in each box.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.2:</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>L.6.3:</b> Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p>

Student Tasks	Common Core Standards Applications
<p><b>Steps 3 and 4 (Continued):</b></p>	<p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p>
<p><b>Step 5:</b> After 20 minutes, call on different students from each group to share details about the vegetation and plant characteristics in each of the nine terrestrial biomes.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.3:</b> Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.4:</b> Present claims and findings... informative.</p> <p><b>SL.6.5:</b> Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>

## Lesson 4: Just Playing a Role

Students assemble food webs for each of the nine terrestrial biomes and identify ecological roles within them. Students then sort organisms according to their ecological roles to emphasize that while the organisms may differ, these same roles exist in every ecosystem associated with all biomes.



Use this correlation in conjunction with the **Procedures** located on pages 100–101 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

Student Tasks	Common Core Standards Applications
<p><b>Vocabulary Development:</b> For depth of understanding, vocabulary may be featured within the context of the unit instead of or in addition to the beginning of the lesson.</p>	<p><b>RH.6–8.4:</b> Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text...</p>
<p><b>Steps 1 and 2:</b> Using the <b>World Biomes Display</b>, the <b>World Biomes</b> posters, climatograms, <b>Biomes Cards</b>, and <b>Plant Characteristics Cards</b>, have students recall some of the characteristics and roles that the plants play in each of the biomes discussed in Lesson 3. Then use the <b>Chaparral Food Web</b> (Visual Aid #3) and the prompts located on page 100 of the <b>Teacher’s Edition</b> to conduct a class discussion about the general principles of food webs.</p>	<p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Steps 3 and 4:</b> Organize the class into 8 groups and give each group one of the eight <b>Food Web Cards</b> (Teacher’s Masters, pages 2–9). Each group will also need a pair of scissors, colored markers, tape, and a piece of chart paper. Each group will create a food web on chart paper, with all the organisms arranged correctly. Once they finish, have students post their food webs around the room for the rest of the class to see.</p>	<p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats...</p> <p><b>SL.6.5:</b> Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>
<p><b>Step 5:</b> After all groups have finished, conduct a class discussion, identifying each biome based on the food webs that were posted. Then tell students to walk around the room and complete the chart from <b>Same Roles, Different Biomes</b> (Student Workbook, pages 17–18).</p>	<p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats...</p> <p><b>SL.6.5:</b> Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>

Student Tasks	Common Core Standards Applications
<p><b>Step 6:</b> Once all students have completed the chart, conduct a group discussion by answering the two prompt questions found on page 101 of the <b>Teacher’s Edition</b>.</p> <p><b>Suggestion:</b> Use the two prompt questions as essay questions for homework. (Suggest 3–5 sentences per question.)</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>L.6.2:</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats...</p> <p><b>SL.6.5:</b> Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p> <p><b>W.6.2:</b> Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p>

## Lesson 5: Human Uses of Organisms Across Biomes

Students briefly revisit *California Connections: A Pig's Tale* and review the ways people use pigs and other animals. They explore four case studies in which people used plants and animals with specific ecological roles to address environmental problems.



Use this correlation in conjunction with the **Procedures** located on pages 124–125 of the Teacher's Edition. Only procedure steps with a Common Core correlation are included in the table below.

Student Tasks	Common Core Standards Applications
<p><b>Vocabulary Development:</b> For depth of understanding, vocabulary may be featured within the context of the unit instead of or in addition to the beginning of the lesson.</p>	<p><b>RH.6–8.4:</b> Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</p> <p><b>RI.6.4:</b> Determine the meaning of words and phrases as they are used in a text...</p>
<p><b>Step 1:</b> Using <i>California Connections: A Pig's Tale</i> (Student Edition, pages 2–5) for reference, conduct a class discussion explaining that we use animals for many different reasons (ie, strength, instinct, etc).</p>	<p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>
<p><b>Steps 2–3:</b> Organize students into 4 groups and assign each group one of the four stories from <b>Ecological Case Stories</b> (Student Edition, pages 6–9). Students will read the case story they have been assigned and then work together to complete the column relating to that story on <b>Comparing Cases</b> (Student Workbook, page 19). After 20 minutes, have each group choose one spokesperson to summarize their case for the rest of the class.</p> <p><b>Suggestion:</b> Have students work in pairs rather than in a large group to complete the column assigned to them.</p>	<p><b>L.6.1:</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>RI.6.7:</b> Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>SL.6.2:</b> Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p> <p><b>SL.6.4:</b> Present claims and findings...</p>

Student Tasks	Common Core Standards Applications
<p><b>Step 4:</b> Using the prompt questions on page 125 of the <b>Teacher’s Edition</b>, conduct a class discussion about human practices that make use of and have effects on organisms that play similar roles in different biomes.</p> <p><b>Suggestion:</b> <i>Have students answer the questions in short answer or essay form. Have them choose one of the three questions to answer, brainstorm and organize their thoughts, then write a 2–3 paragraph response.</i></p>	<p><b>SL.6.1:</b> Engage effectively in a range of collaborative discussions...</p> <p><b>W.6.1:</b> Write arguments to support claims with clear reasons and relevant evidence.</p> <p><b>W.6.2:</b> Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p><b>W.6.4:</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience...</p> <p><b>W.6.7:</b> Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.</p>

## Unit Assessment

Refer to the introduction pages at the front of this document for information regarding the Traditional and Alternative Assessments for this unit and their Common Core correlations.

### Reading *California Connections* using a Common Core Reading and Writing Focus

#### Reading

Science teachers can further enhance the teaching of Common Core Reading Literacy Standards by noting the suggestions below and in the following pages while reading the **California Connections** selection for content. Explicitly teach students to pay attention to the structure of the text by noting the following:

- Note how the author cites evidence to support main points and analysis. **(RST.6–8.1)**
- Note how the author sets up the central ideas or conclusions; provide an accurate summary of the text distinct from prior knowledge or opinions. **(RST.6–8.2)**
- Analyze how the author describes a scientific process or a multi-step procedure. **(RST.6–8.3)**
- Note how the author explains the meaning of key terms, symbols, domain specific words, and phrases. **(RST.6–8.4)**
- Analyze the structure the author uses to organize the text, including how the major sections contribute to the whole and to an understanding of the topic. **(RST.6–8.5)**
- Analyze the author’s purpose in providing an explanation or describing a procedure. **(RST.6–8.6)**
- Note how the information in the California Connections text integrates with information provided visually throughout the unit in diverse formats, including tables, charts, graphs, diagrams, maps, and quantitative data. **(RST.6–8.7)**
- Distinguish among facts, reasoned judgment based on research findings, and speculation in a text, noting the reasoning and evidence used to support the author’s claim. **(RST.6–8.8)**
- When other documents or media sources are included, compare and contrast the information presented in the various formats and resources with that from the text, noting how the information contributes to a coherent understanding. **(RST.6–8.9)**
- Note comprehension strategies for understanding the text. **(RST.6–8.10)**

**Note:** Standard descriptions from the Reading Standards for Literacy in Science and Technical Subjects are paraphrased and combined, using terminology that applies to reading a **California Connections** selection.

#### Writing

Many **California Connections** selections can be used as a model for future student writing tasks applying the Writing Literacy Standards by noting how the author structures the text, organizes the ideas, and provides well-chosen relevant and sufficient facts, extended definitions, concrete details, quotations, or other information and examples.

#### Using the *California Connections* Selection

The following pages note specific places where the **California Connections** selection provides examples for specific Writing Literacy Standards for Science and Technical Subjects, using this selection as a writing model. They also provide suggestions for teaching students to analyze text structure using the Reading Literacy Standards for Science and Technical subjects. Teachers can incorporate more suggestions from the list above. In addition, for teachers of self-contained classrooms, ELA standards are included.

## A Pig's Tale



Emily awakened at 5 AM on the day of the show at the county fair. The weather was going to be hot—95 degrees in the valley—and she wanted to make sure that Leonard stayed comfortable. Placing her feet on the cool plank floor, she thought about the exciting day ahead.

Emily pulled on her boots without bothering with socks, grabbed a brush and pail, and stumbled out to the barn to give Leonard a bath.

Running her fingers along the smooth edge of Leonard's stall in the dark, she found the light switch and flipped it on. To her surprise, the latch on the gate was up. The gate had been pushed open, and now sagged on bent hinges. Leonard was nowhere to be found!

Emily stepped back into the yard and listened. Her heart thumped in her chest. Could a predator have gotten in to Leonard's stall last night? Suddenly, she heard a grunt in the direction of the compost pile. As her eyes adjusted to the early morning light, Emily could see Leonard, his 300-pound body rooting around in the rotting vegetables and fruits.



Feral pig

"Leonard," Emily said softly, not wanting to frighten her massive pet pig. "The judges should crown you king of garbage, instead of giving you first place!"

### Domestic Pigs

Leonard is a domestic pig. He has a body shaped like a barrel, and long snout that

ends in a round disk. When pigs are hungry, they put their heads down and bury their snouts in the dirt. Then they bring their heads up quickly, rooting out food underground. Pigs are omnivores. This means that they eat both plants and animals. Pigs in the wild live on leaves, roots, fruit, vegetables, reptiles, and

**RST.6–8.7:** Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually...

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Australian savanna

rodents. Domestic pigs—like Leonard—are usually fed corn, grain, roots, dairy byproducts, and compostable garbage. Leonard weighs about 300 pounds, but his relatives can easily reach 700 pounds and more. Some domestic pigs have been known to weigh as much as 2,000 pounds!

Pigs have thick skin covered with a coat of stiff hairs called "bristles." These hairs poke all the way through

the pig's hide, making pigskin a comfortable leather to wear because it naturally "breathes." Bristles are sometimes used to make cleaning and hair brushes. Pigs have both upper and lower tusks, which are really teeth that keep growing throughout their lives. They sharpen their tusks by rubbing them together when they eat.

Male pigs are known as "boars" and female pigs are called "sows." Baby pigs

are called "piglets," and after they are weaned from their mother they are called "shoats." Intelligence tests have shown that pigs are the smartest of all domesticated animals—even dogs. Pigs also have a keen sense of smell, which they often use to find food. People in France and other countries use pigs to search for truffles—a rare and expensive fungus (like a mushroom)—that grows underground.

Despite what you may have heard, pigs are not normally dirty. Because they do not sweat like humans do, rolling around (wallowing) in shallow mud holes allows them to stay cool during hot summer months. If kept in a cool environment, they stay very clean. Many people keep pigs as pets and sleep with them to keep warm. Pigs can be house-trained and can make great pets.

Pigs belong to a group of mammals that first appeared on Earth about 46,000 years ago. Camels and hippos are part of this group; so are cattle, sheep, and goats. Over thousands of years, pigs developed complex digestive systems, which allow them to eat almost any kind of food. Pigs have survived many changes on Earth because they were able to change their diet as the environment around them changed.

**How People Use Pigs**

Humans began to use pigs for food (meat) and clothing (leather) about 6,900 to 12,000 years ago. Archaeologists believe pigs originated in West Asia, and were taken to every continent

except Antarctica. Pigs were first brought to Hawaii around 1,000 CE. They even traveled with Christopher Columbus on his second voyage to the Americas in 1493. The colonists loved pigs because they could reproduce very fast, would eat anything, and were a cheap source of food. They brought them to the eastern coast of North America in the early sixteenth century. People dropped off pairs of pigs on the tiny islands off the coast, to be captured later and used. They called these "hog" islands. When they returned, the islands were teeming with pigs!

Pigs came to California with Spanish settlers in the 1700s. The pigs enjoyed living under the giant oaks, dining on the many acorns that fell from the trees in the fall. Acorns provided free food for the pigs, while the ranchers and their families enjoyed as much bacon and pork as they could eat.

**Arrival of Wild Pigs**

In the 1920s, a hunter named George Gordon Moore brought several wild pigs from Germany to North Carolina. He and his friends hunted the wild animals on his game preserve. Moore



Wild pig and piglets

**RST.6–8.1:** Cite specific textual evidence to support analysis of science and technical texts.

**RST.6–8.4:** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context...

California Connections: A Pig's Tale  
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decided to bring some of the strongest wild boars and sows to his ranch in California. These wild pigs were not only strong; they were smart, and eventually escaped from the California ranch to share the oak woodlands and acorns with their relatives, the domestic pigs. Soon, California was home to a new breed of "feral" pigs. These wild hogs still roam the chaparral-covered hills of our state.

They are both a resource (for hunters) and a pest, because their rooting causes damage to natural systems.

**Able to Adapt**

Throughout history, wherever pigs were taken, they made themselves at home. Because they adapted so well to different environments, pigs have always been a valued resource for humans. Pigs—domestic and wild—thrive

across most biomes, on all continents except Antarctica, where it is difficult for them to find food. Today, there are over 370 breeds of pigs on Earth. They come in all colors, from the pure Chester White, to the black and white Hampshire, and the deep red Durok. People use some breeds only for specific products—like bacon. Other breeds have other uses, including becoming treasured pets like Emily's Leonard.

Emily gently pulled Leonard away from the compost pile. The Sun was coming up, and she could see her parents making coffee in the kitchen. She guided Leonard back to the barn by tapping him lightly on his back. In the barn, she washed the vegetables off of his face and neck. Then she scrubbed his coat with a soft brush and shampoo. Leonard was patient. He stood quietly while Emily dried him off with a towel and carefully brushed his bristles back and down. He was a prize-winning pig, after all, and knew the compost pile was not going anywhere. It would still be there when he returned later that day from the county fair with a shiny, blue, first-place ribbon.



Pig rooting

### California Common Core State Standards Descriptions

#### Language Standards

- **L.6.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.6.2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- **L.6.3:** Use knowledge of language and its conventions when writing, speaking, reading, or listening.

#### Reading Standards for Informational Text

- **RI.6.2:** Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- **RI.6.4:** Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. **(See grade 6 Language standards 4–6 for additional expectations.) CA**
- **RI.6.7:** Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

#### Speaking and Listening Standards

- **SL.6.1:** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
- **SL.6.2:** Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- **SL.6.4:** Present claims and findings (**e.g., argument, narrative, informative, response to literature presentations**), sequencing ideas logically and using pertinent descriptions, facts, and details **and nonverbal elements** to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. **CA**
- **SL.6.5:** Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

#### Writing Standards

- **W.6.1:** Write arguments to support claims with clear reasons and relevant evidence.
- **W.6.2:** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- **W.6.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- **W.6.7:** Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

#### Reading Standards for Literacy in History/Social Studies

- **RH.6–8.4:** Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- **RH.6–8.7:** Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

### Reading Standards for Literacy in Science and Technology Subjects

- **RST.6–8.1:** Cite specific textual evidence to support analysis of science and technical texts.
- **RST.6–8.4:** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6–8 texts and topics*.
- **RST.6–8.7:** Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).