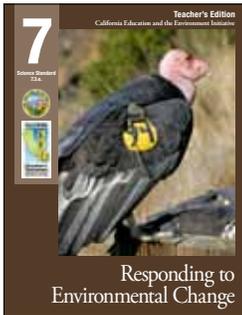




TEACH COMMON CORE STANDARDS WITH THE EEI CURRICULUM

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.

7.3.e.—Responding to Environmental Change



In this unit, students explore the relationship between environmental change and extinction. They study species responses through different generations with evolution and/or through the ability to tolerate a variety of environmental conditions with adaptive characteristics. They begin by studying the adaptive characteristics that have led to the coyote’s survival, and then learning the causes of other species’ extinction. Then students use charts, graphs, and maps to compare population growth and extinction over time. Students examine how human consumption rates and activities influence threatened ecosystems, as well as studying how human activity is affecting specific endangered species.

| | | RST.6–8.1 | RST.6–8.2 | RST.6–8.4 | RST.6–8.5 | RST.6–8.7 | RST.6–8.8 | RST.6–8.10 | WHST.6–8.1 | WHST.6–8.2 | WHST.6–8.4 | WHST.6–8.5 | WHST.6–8.7 | SL-7.1 | SL-7.4 | L.7.4 |
|------------------------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|--------|--------|-------|
| LESSONS | California Connections | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ |
| | 1 | | ✓ | ✓ | | | | ✓ | | ✓ | | | | ✓ | | |
| | 2 | | ✓ | ✓ | | | | ✓ | | ✓ | ✓ | | | ✓ | ✓ | |
| | 3 | | | ✓ | | ✓ | | | | | | | | ✓ | | |
| | 4 | ✓ | ✓ | ✓ | | | | ✓ | | | | | ✓ | ✓ | ✓ | |
| | 5 | ✓ | ✓ | ✓ | | | | ✓ | | ✓ | | | | | | |
| | 6 | ✓ | | ✓ | | ✓ | | | | | | | | ✓ | | |
| Traditional Assessment | | ✓ | | | | | | | | ✓ | | | | | | |
| Alternative Assessment | | ✓ | | | | | | | | ✓ | ✓ | ✓ | | | | |

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
- **RST:** Reading Standards for Literacy in Science and Technical Subjects
- **SL:** Speaking and Listening Standards
- **WHST:** Writing Standards for Literacy in History-Social Studies, Science, and Technical Subjects

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 15–16 of this document.

A Note about Common Core Speaking and Listening Standards

Throughout this unit, students participate in various learning structures and groups to analyze, discuss, and synthesize data, which 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 on collaborative discussions, these various groupings and the materials students examine lend themselves to prime discussion material for collaborative discussions. Learning structures with tasks for pairs and groups are in the following lessons:

- **Lesson 1:** Pairs
- **Lesson 2:** Pairs, Groups
- **Lesson 3:** Pairs
- **Lesson 4:** 8 Groups (become expert on a topic), 8 Reassembled Groups (share expertise)
- **Lesson 5:** Groups of 4
- **Lesson 6:** Pairs (possible groups)

National Geographic Resources

- **Human Geography** wall map (Lesson 3)
- **Human Geography** student maps (Lesson 3)
- **Biological Diversity** wall map (Lesson 5)
- **Human Imprint** wall map (Lesson 6)
- **Human Imprint** student maps (Lesson 6)
- **Political** wall map (Lesson 6)

Unit Assessment Options

| Assessments | Common Core Standards Applications |
|---|--|
| Traditional Assessment | |
| <p>Students answer 10 multiple choice questions about information from the unit, then they read information about the high desert and answer questions about changes in this ecosystem and their effects on different species. Afterwards, they select a specific endangered species and complete short answers to questions.</p> | <p>RST.6–8.2: Determine the central ideas...of a text...</p> <p>WHST.6–8.2b: Develop the topic with relevant, well-chosen facts, definitions, concrete details...or other information and examples.</p> |
| Alternative Assessment | |
| <p>Students write and answer questions for a mock interview with a Park Ranger as if they were a radio news reporter. They are given a list of questions about ecosystems to answer, as well as specific vocabulary words to include. They are encouraged to use any of the resources used from the lesson. The Interview with a Park Ranger Scoring Tool defines the criteria for the assignment.</p> | <p>RST.6–8.2: Determine the central ideas or conclusions of a text...</p> <p>WHST.6–8.2: Write informative/explanatory texts...</p> <ul style="list-style-type: none"> a) Introduce a topic clearly...organize ideas, concepts, and information... b) Develop the topic with relevant, well-chosen facts, definitions, concrete details...or other information and examples. c) Use appropriate and varied transitions... d) Use precise language and domain-specific vocabulary... e) Establish...a formal style and objective tone. f) Provide a concluding statement... <p>WHST.6–8.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.6–8.5: With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting,...focusing on how well purpose and audience have been addressed.</p> |

Lesson 1: Adapting to Environmental Change

Students examine a case study of the coyote, a species in California with adaptive characteristics. They define adaptations and adaptive characteristics and investigate how two other animals with adaptive characteristics have responded to environmental change in different California ecosystems.



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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Steps 2–4: Students read <i>California Connections: The Coyote Success Story</i> (Student Edition, pages 2–4), and define the concept of “adaptation” and “adaptive characteristics.” They relate these terms to what they have read about the coyote.</p> <p>In addition to providing support for Reading Literacy standards, this selection provides a writing model for the Writing Literacy standards. As students read for content, explicitly point out the text structures the author uses to convey the information.</p> <p>Suggestion: Refer to the <i>Reading California Connections Using a Common Core Reading and Writing Focus</i> on pages 11–14 to view specific suggestions for integrating Common Core standards while reading this selection not only for content, but for text structure as well.</p> | <p>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> <p>RST.6–8.10: ...Read and comprehend science/technical texts...independently and proficiently.</p> |
| <p>Steps 5–7: Students read the <i>California Connections</i> selection again and work in pairs to complete the “Coyote” section of the chart Adaptive Characteristics and Responses to Change (Student Workbook, pages 3–4). They continue to fill out the chart while reading Animal Readings (Student Edition, pages 5–6). Then students complete Adapting to Change (Student Workbook, pages 5–7).</p> <p>Students should work together locating details from the text that fit into each category on the workbook pages, then discuss the details in order to answer the questions.</p> | <p>RST.6–8.2: Determine the central ideas...of a...source; provide an accurate summary of the source...</p> <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</p> <p>WHST.6–8.2b: Develop the topic with relevant, well-chosen facts, definitions, concrete details...or other information and examples.</p> |

Lesson 2: What Causes Extinctions?

Students define extinction and read one of three selections about an extinct species. They explore why the species they study became extinct and share that information in a whole-class discussion. Students use this information to complete a chart summarizing why species become extinct.



Use this correlation in conjunction with the **Procedures** located on pages 54–55 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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Step 1: Students determine the definition of “extinction” and discuss examples of extinct animals.</p> | <p>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Steps 3–6: Pairs are divided into 3 groups, with each reading a different selection from Extinct Species Readings (Student Edition, pages 7–8). Each group completes the appropriate column of Extinction Chart (Student Workbook, page 8). Then groups share the information about their species with the class and each student records the information about the two extinct animals they did not study.</p> <p>In Step 6, the last several bulleted questions lend themselves to group discussion, especially if students are selected to guide the conversation and students have had prior training in collaborative conversation techniques where they pose and respond to probing questions with elaboration and detail.</p> | <p>RST.6–8.2: Determine central ideas...of a text; provide an accurate summary of the text...</p> <p>RST.6–8.10: ...Read and comprehend science/technical texts...independently and proficiently.</p> <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</p> <p>SL.7.4: Present claims and findings,... emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples...</p> |

| Student Tasks | Common Core Standards Applications |
|---|--|
| <p>Step 7: Students answer questions on the About Extinction (Student Workbook, pages 9–10) page, writing complete paragraphs on page 10. Review with students the specific requirements listed in WHST.6–8.2 and WHST.6–8.4, reminding them to use specific details and vocabulary terms from the lessons.</p> | <p>WHST.6–8.2: Write informative/explanatory texts...</p> <ul style="list-style-type: none"> a) Introduce a topic clearly...organize ideas, concepts, and information... b) Develop the topic with relevant, well-chosen facts, definitions, concrete details...or other information and examples. c) Use appropriate...transitions... d) Use precise language and domain-specific vocabulary to...explain the topic. e) Establish...a formal style... f) Provide a concluding statement... <p>WHST.6–8.4: Produce clear and coherent writing...</p> |

Lesson 3: Human Population Growth and Extinction

Students create a graph comparing population growth and rates of extinction over time. They examine California population growth and predict its effects on the environment, and then compare maps of California population density and land use to explore how land use changes can affect extinction rates.



National Geographic Resources

- **Human Geography** wall map
- **Human Geography** student maps (1 per student pair)

Use this correlation in conjunction with the **Procedures** located on pages 68–69 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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Steps 2–6: Students work in pairs to interpret information from tables showing human population and animal extinctions over time and complete a population graph. After discussing the implications of the graph and table, and discussing the concept that correlation does not equal causation, students continue to work in pairs to compare the data from graphs and maps representing different aspects of population density. They then share their observations. Documents used in these steps include Population and Extinction Data (Student Edition, page 9), Graphing Population Data (Student Workbook, pages 11–12), and the Human Geography student map.</p> <p>As students make their observations, have them also explain how the graphs, table, and maps contribute to understanding the concept in a different way than text alone. Have them share with each other the information each document is representing and how the documents work together to convey information.</p> | <p>RST.6–8.7: Integrate quantitative... information expressed in words...with a version of that information expressed visually (e.g.,...graph, or table).</p> <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</p> |
| <p>Step 7: Students use the information gleaned from the previous steps to answer the questions: “Where would you predict species would be at greatest risk for extinction in California? Why?” This question lends itself to collaborative discussion as students refer to the readings and data from this and previous lessons to draw possible conclusions supported by details from the documents they’ve studied.</p> | <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</p> |

Lesson 4: Natural Resources and Extinction

Students review the concept of natural resources and read about and analyze how acquisition and consumption of a particular resource influences rates of extinction. They strengthen their understanding as they learn from other students how these processes affect other resources and how they influence rates of extinction.



Use this correlation in conjunction with the **Procedures** located on page 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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Steps 2–4: Students are divided into eight focus groups. Two groups each will focus on one of 4 topics in separate Resource Readings (Student Edition, pages 10–17). Working together, students become experts on their topic, completing the questions and charts for their section of Natural Resources and Extinction, (Student Workbook, pages 13–14). Student groups then reassemble with one student from each Resource Reading category in each group, and present a summary of their resource readings to their new groups, citing specific textual evidence to support their findings. Students take notes on each other’s information.</p> <p>Before students assemble in their groups, review collaborative discussion techniques and the requirement to cite specific textual evidence for information they share.</p> <p>Each Resource Reading serves as source material for a “short research project.” The Common Core aspect of this activity could be enhanced by asking each group to locate and read another source of information on the topic and return to class the next day ready to share notes with their groups from the other source.</p> | <p>RST.6–8.1: Cite specific textual evidence...</p> <p>RST.6–8.2: Determine central ideas...of a text; provide an accurate summary of the text...</p> <p>RST.6–8.10: ...Read and comprehend science...texts...independently and proficiently.</p> <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</p> <p>SL.7.4: Present claims and findings,... emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples...</p> <p>WHST.6–8.7: Conduct short research projects to answer a question...</p> |
| <p>Step 5: Students complete Natural Resources Summary (Student Workbook, page 15), using examples learned from the others during Step 4.</p> <p>By emphasizing that students use examples they learned from the others during Step 4, their need to carefully listen and record information increases.</p> | <p>RST.6–8.2: Determine central ideas...of a text; provide an accurate summary of the text...</p> |

Lesson 5: Human-Caused Change in Ecosystems

Students look at images of different California ecosystems and locate the ecosystems on a map. They play a board game in which they read about several threatened ecosystems in California, and use the information to answer questions about human activity and ecosystem change.



National Geographic Resources

- **Biological Diversity** wall map

Use this correlation in conjunction with the **Procedures** located on page 108 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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Step 3: In groups, students play a game where they must use information from Coastal Dunes Background, High Desert Background, and Kelp Forest Background (Student Edition, pages 19, 20, and 21) to answer questions and move forward.</p> <p>Be sure to review the rules before students play, and emphasize that teams should require thorough answers from the other team that include citing evidence from the text before they can move their piece on the board. This will give each team motivation to read their information carefully.</p> | <p>RST.6–8.2: Determine the central ideas...of a text; provide an accurate summary of the text...</p> <p>RST.6–8.10: ...Read and comprehend science...texts...independently and proficiently.</p> |
| <p>Step 4: Students complete Changes in Ecosystems (Student Workbook, pages 16–18).</p> <p>Suggestion: <i>It may be valuable to group students by ecosystem (self-chosen or assigned) to discuss answers to the questions on pages 17 and 18 before writing.</i></p> | <p>RST.6–8.1: Cite specific textual evidence...</p> <p>RST.6–8.2: Determine the central ideas...of a text; provide an accurate summary of the text...</p> <p>WHST.6–8.2b: Develop the topic with relevant, well-chosen facts, definitions, concrete details...or other information and examples.</p> |

Lesson 6: When Species Cannot Adapt: A Discussion

Students read about several California species, study a map to locate where the species live, and determine the level of human activity in the region. Students use this information to predict the level of extinction risk for each species.



National Geographic Resources

- **Human Imprint** wall map
- **Human Imprint** student maps (1 per student pair)
- **Political** wall map

Use this correlation in conjunction with the **Procedures** located on pages 136–137 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>Vocabulary Development: 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>RST.6–8.4: Determine the meaning of... key terms, and other domain-specific words and phrases as they are used in a specific scientific...context...</p> |
| <p>Step 2: When students provide explanations for their answers to the survey questions, require that they provide evidence or examples to support their reasoning.</p> | <p>RST.6–8.1: Cite specific textual evidence...</p> |
| <p>Steps 3–5: Use the steps for reading, discussing, and completing the information about the salt marsh harvest mouse as a model for how student pairs complete the information about the other species. You may wish to have students assemble in small groups to discuss the questions on Risk of Extinction (Student Workbook, pages 19–20) before writing answers. Integrating information from the map with the textual information increases student understanding of the influence of changes in the species ecosystems.</p> | <p>RST.6–8.1: Cite specific textual evidence...</p> <p>RST.6–8.7: Integrate quantitative... information expressed in words...with a version of that information expressed visually (e.g.,...graph, or table)...</p> <ul style="list-style-type: none"> ■ Map <p>SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners..., building on others’ ideas and expressing their own clearly.</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; and 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 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 a 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.

WHST.6–8.2a: Introduce the topic clearly...

WHST.6–8.2a: Introduce a topic clearly, previewing what is to follow...

This sentence sets the framework for the essay with its list: adaptation, success, and survival.

WHST.6–8.1b: Support claim(s) with logical reasoning and relevant, accurate data and evidence...

Suggestion: Trace the support for this claim throughout the text.

WHST.6–8.2a: ...graphics...

- Why did the author select each graphic?
- How does each support the text?

Attention Grabber:
Introduces a subject in a way that creates interest.

L.7.4c: ...etymology of words...

California Connections: The Coyote Success Story
Lesson 1 | page 1 of 3

The Coyote Success Story



Listen quietly in rural and suburban areas almost anywhere in California and you may be able to hear strange yips and howls filling the night air. These noises are from neighbors you may not even know you have: coyotes. Coyotes bark and howl to communicate with each other; their name comes from the Aztec word "coyotl," meaning "barking dog," a fact that makes sense since these animals come from the dog family.

Coyotes are also related to wolves and foxes. Scientists consider coyotes to be one of the most adaptable and successful mammals in North America. Coyotes now live in every part of the continent, in residential neighborhoods and along the outskirts of cities; their story is one of adaptation, success, and survival.

Experts disagree about how long coyotes have lived in California. Some believe coyotes came here in the 1900s; some say they followed the trail of the Gold Rush in the 1800s; others say they were here even earlier, and some evidence exists to support

this belief. Archaeologists often find coyote bones in American Indian sites, as well as coyote fossils in Southern California. Early explorers wrote about animals they called "prairie wolves" and they were probably describing coyotes, but no one knows for sure. Scientists know that when California's population boomed after World War II, the coyote population also boomed. Coyote numbers grew, especially around cities. Today coyotes are common throughout California, living beside homes, schools, and parks.

Living Around People
Why do some animals live around people while others die out? The answer is in an animal's ability to survive change. After World War II, many people moved to California. Young couples settled into new communities and began raising families. As the number of people grew, human communities spread into the surrounding natural areas. This reduced the amount of natural habitat available for wild plants and animals. People needed food to eat, water to drink, materials to build and furnish homes, as well as resources to manufacture other goods and support local economies.



Housing development reduces natural habitat

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WHST.6–8.2b: Develop the topic with relevant, well-chosen facts...

This fact prompts the reader to wonder "why?"

WHST.6–8.2c: Use appropriate and varied transitions to create cohesion...

This sentence connects the previous ideas with the upcoming information.

RST.6–8.5: Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

- Chronological

RST.6–8.8: Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

Suggestion: Have students trace the evidence the author provides.

RST.6–8.5: Analyze the structure an author uses to organize a text...

- Proposition support
- Cause and effect

This paragraph begins with proposition/support and continues with cause/effect.

Note: The proposition support organizational structure is used by authors when they make a statement or claim and then support the statement with details, examples, facts, definitions, and other information.

WHST.6–8.2d: Use precise language and domain-specific vocabulary...

RST.6–8.4: Determine the meaning of...key terms, and other domain-specific words and phrases...

- adaptations
- flexible
- traits
- behavioral adaptability

RST.6–8.10: ...Read and comprehend science... texts...independently and proficiently.

Suggestion: While reading the text, have students apply reading strategies to aid comprehension of the content.

California Connections: The Coyote Success Story
Lesson 1 | page 2 of 3



Coyote with grey squirrel

Some animals cannot survive the effects of human development and their numbers drop close to extinction. Some leave the developed areas in search of wild landscapes. But others, such as the coyotes, have the ability to change and survive.

Adaptations
Coyotes are predators who hunt, kill, and eat other animals. They have a keen sense of smell, good eyesight, and excellent hearing. They have long legs that help them run fast and their thick fur is tan or gray, helping them blend in with native vegetation. These adaptations, developed over thousands of years of natural selection, allow coyotes to catch prey while avoiding enemies. For coyotes, such favorable traits make them more likely to mate and reproduce. These traits are passed on and become more common in successive generations, while unfavorable traits become less and less common. For example, a coyote with short legs and poor eyesight would have a difficult time catching

mice to eat. It would also be an easy target for a mountain lion. This unlucky coyote would most likely die before it reproduces. With time, the traits that allow any living thing to survive and reproduce successfully become more common in its population.

Surviving Human-Caused Change
Coyotes survive human-caused environmental changes because they are flexible. These animals can eat many different types of food; although they primarily eat small mammals, they can also eat insects, lizards, fruit, seeds, pet food, and garbage. They can live alone, in pairs, or in groups. They can live in many different areas from deserts to mountains to human neighborhoods. All they need to make a den is a warm, dry place. Coyotes are also intelligent and they learn quickly in new situations. Twice in recent years, coyotes have broken into the flamingo enclosure at the Los Angeles Zoo. These smart animals recognized the easy access and an equally easy meal. Behavioral adaptability and intelligence are two adaptive traits that have come about from natural selection. However, the things coyotes learn are not passed down to other generations. This type of trait is similar to the human ability to learn to read. The intelligent brain humans need to read develops from natural selection. But every child still needs to learn to read anew. Even if a mother learns to read, her child will not be born with the ability to read—the child must be taught this skill. In the same way, smart coyotes learn how to survive near humans. They learn to be active at night to avoid people. They learn to prey

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RST.6–8.5: Analyze the structure an author uses to organize a text...

Suggestion: Have students identify each proposition or claim and the evidence used to support it.

- Proposition support

WHST.6–8.2b: Develop the topic with... definitions, concrete details...

This extended definition helps clarify the term "adaptations."

WHST.6–8.2b: Develop the topic with...concrete details...

This example relates to students' own experiences.

RST.6–8.5: Analyze the structure an author uses to organize a text...

- Explanation and description

WHST.6–8.2c: Use appropriate and varied transitions...

- In the same way

This phrase connects the ideas of the preceding paragraph with this paragraph.

on feral cats and roaming pets. They learn to scavenge garbage and find pet food. They learn neighborhood sources of water. They teach their young how to survive in human environments. Coyote pups raised in neighborhoods prefer neighborhoods because that is all they know. When scientists relocate these suburban coyotes into wild areas, the coyotes return to the neighborhood they know best.

Adaptive Characteristics

The coyote's behavioral adaptability and intelligence help it survive in human environments, but these same traits put the coyote at risk of becoming too comfortable around people. The coyote can then become overly bold. This has already played out in many parts of California where newspapers tell of coyote attacks on people. These reports are often accompanied by "Lost Cat" signs posted in a neighborhood, often one of the first hints that coyotes live nearby. Scientists who study coyotes say that habituation is a people problem, not a coyote one. Sometimes people leave food out for coyotes because they see them as cute and want to attract them. More often, people are unaware of the bait they leave behind: pet food on a porch, unsecured trash bins, or overflowing bird feeders. Even allowing pets, such as cats, to roam neighborhoods can tempt coyotes.

Is there a limit to how much development coyotes can withstand? Some say yes. Scientists have shown that even coyotes in cities prefer areas that resemble natural habitats, such as public parks and greenbelts. Diet studies show that coyotes still eat mostly the same foods in cities as they do in natural

areas: small prey and plants. Human garbage and debris make up only a small fraction of their diet. Coyotes do well in many urban and suburban areas, but they still do not live in downtown Manhattan or downtown Los Angeles.

Coyotes have much to offer people. They kill rodents for free and they control the population of smaller predators. This activity increases the number of songbirds in cities and other habitats. Coyotes are the only large predator many of us will ever see. They teach us many lessons about how important large predators are to an ecosystem. They also teach us the valuable lesson of how important it is to be able to adapt to change.

As the human population continues to grow, we will interact more and more with this remarkable animal. Will coyotes survive by continuing to adapt to human development?



Coyote on road with cars

RST.6–8.8: Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

RST.6–8.5: Analyze the structure an author uses to organize a text...

- Proposition support

Suggestion: Have students identify each proposition or claim and the evidence used to support it.

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WHST.6–8.2f: Provide a concluding statement... that follows from and supports the information or explanation presented.

RST.6–8.5: Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

Suggestion: After finishing the text, review it again, observing the overall structure and how each section is organized to contribute to the reader understanding the overall concept.

California Common Core State Standards Descriptions

Listening

- **L.7.4:** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies.
 - c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech **or trace the etymology of words. CA**

Reading Standards for Literacy in Science and Technical Subjects

- **RST.6–8.1:** Cite specific textual evidence to support analysis of science and technical texts.
- **RST.6–8.2:** Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
- **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.6–8.5:** Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
- **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).
- **RST.6–8.8:** Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- **RST.6–8.10:** By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.

Speaking and Listening

- **SL.7.1:** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 7 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
- **SL.7.4:** Present claims and findings (**e.g., argument, narrative, summary presentations**), emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. **CA**

Writing Standards for Literacy in History-Social Studies, Science, and Technical Subjects

- **WHST.6–8.1:** Write arguments focused on *discipline-specific content*.
 - b) Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
- **WHST.6–8.2:** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
 - a) Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b) Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
 - c) Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
 - d) Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e) Establish and maintain a formal style and objective tone.
 - f) Provide a concluding statement or section that follows from and supports the information or explanation presented.
- **WHST.6–8.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **WHST.6–8.5:** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
- **WHST.6–8.7:** Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.