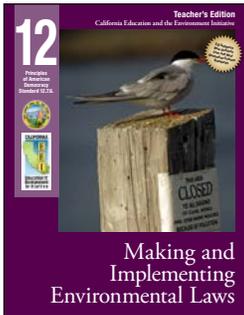




TEACH COMMON CORE STANDARDS WITH THE EEI CURRICULUM

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.

12.7.6. — Making and Implementing Environmental Laws



In this unit, students examine the responsibilities held by different levels of government in upholding environmental law. They begin by studying the disposal of hazardous waste and how cleanup laws are implemented, using the Long Beach Naval Complex and Sulphur Bank Mercury Mine as examples. They then move on to study California's Brownfields Programs and Green Chemistry Initiative. They understand through reflection, discussion, and writing assignments how environmental law affects the American landscape.

		RH.11–12.1	RH.11–12.2	RH.11–12.3	RH.11–12.4	RH.11–12.7	RH.11–12.8	RH.11–12.9	WHST.11–12.1	WHST.11–12.4	WHST.11–12.6	WHST.11–12.7	WHST.11–12.8	WHST.11–12.9	WHST.11–12.10	SL.11–12.1	SL.11–12.3	SL.11–12.4	SL.11–12.5
		COMMON CORE STANDARDS																	
LESSONS	California Connections			✓	✓	✓	✓												
	1		✓		✓	✓		✓		✓						✓			
	2	✓	✓	✓	✓	✓		✓		✓			✓	✓		✓		✓	
	3		✓		✓				✓					✓	✓	✓			
	4		✓		✓					✓		✓		✓	✓	✓	✓	✓	✓
	5		✓		✓	✓			✓	✓		✓		✓		✓			
	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
- **RH:** Reading Standards for Literacy in History/Social Studies
- **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 20–21 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:** Whole class
- **Lesson 2:** Whole class, groups of 4
- **Lesson 3:** Whole class, groups of 4
- **Lesson 4:** Whole class
- **Lesson 5:** Whole class

National Geographic Resources

- **Human Imprint** wall map (Lessons 1–3)
- **Political** wall map (Lessons 1–3)

Unit Assessment Options

Assessments	Common Core Standards Applications
Traditional Assessment	
<p>Students complete a multiple choice section and answer three questions in complete sentences.</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Alternative Assessment	
<p>With a partner, students research a Superfund or brownfield site near their community. They explore the role of federal, state, and local governments at the different stages of the site’s designation and cleanup process and present their findings to the class.</p> <p>Tip: Students should be provided the scoring tool prior to the assignment.</p> <p>Suggestion: Students could incorporate digital media in their presentations to add interest and enhance their findings.</p> <p>Suggestion: Add the phrase “...and how did this positively or negatively affect the community?” to the end of the provided questions, so that students are writing and presenting an argument, rather than just explaining.</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>SL.11–12.4: Present information, findings, and supporting evidence (e.g.,...historical investigation,...), conveying a clear and distinct perspective and a logical argument, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks. Use appropriate eye contact, adequate volume, and clear pronunciation. CA</p> <p>b) Plan and present an argument that: supports a precise claim; provides a logical sequence for claims, counterclaims, and evidence; uses rhetorical devices to support assertions (e.g., analogy, appeal to logic through reasoning, appeal to emotion or ethical belief); uses varied syntax to link major sections of the presentation to create cohesion and clarity; and provides a concluding statement that supports the argument presented. (11th or 12th grade) CA</p> <p>SL.11–12.5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.</p> <p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11–12.6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p> <p>WHST.11–12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</p>

Lesson 1: The Responsibilities of Government: Protecting the Environment and Public Health

Students read parts of the U.S. and California constitutions to see what charges government with mitigating environmental pollution. They read about the government’s role in disposing of hazardous waste, then answer questions to assess their understanding.



National Geographic Resources

- **Human Imprint** wall map
- **Political** wall map

Use this correlation in conjunction with the **Procedures** located on pages 38–40 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>RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...</p>
<p>Steps 1 and 2: Lead a discussion about the The Constitution of the United States: Excerpts (Student Edition, pages 2–3) using the following prompts:</p> <ul style="list-style-type: none"> ■ According to the Preamble, what are the purposes of the U.S. government? (<i>Students’ phrasing will vary, but they should mention six purposes: to create a better functioning government than existed under the Articles of Confederation, to set up courts and systems that will ensure fairness for all, to keep peace within the nation, to defend the country from attacks from outsiders, to contribute to the well-being of people and society, and to ensure freedom for present and future generations.</i>) ■ What does it mean for the government to “promote the general welfare”? What do you expect from the California and federal governments as far as promoting your welfare and that of your community? (<i>Some possible responses are setting standards for food quality, providing health care for the elderly, building highways, supporting education, and providing low-cost housing.</i>) <p>Tell students to look at the excerpts that are italicized in The Constitution of the United States: Excerpts. Explain that these passages have provided a constitutional basis for federal environmental law. Ask students to speculate on the following:</p> <ul style="list-style-type: none"> ■ How does the “spending power” relate to environmental regulation? (<i>Congress can allocate money for environmental protection; it can also force states to meet certain standards if they want to receive federal funds.</i>) ■ How does the “commerce” clause give the government authority to protect the environment? (<i>Congress can regulate trade between states and internationally; it can take action to fix anything that impedes trade, such as pollution.</i>) ■ How does the Necessary and Proper Clause relate to the government’s authority to protect the environment? (<i>It enables Congress to pass any laws necessary to implement the policies it adopts to carry out its other powers.</i>) 	<p>RH.11–12.9: Integrate information from diverse sources...into a coherent understanding of an idea...</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>

Student Tasks	Common Core Standards Applications
<p>Steps 1 and 2 (Continued):</p> <ul style="list-style-type: none"> How does the “treaty power” relate to the government’s authority to protect the environment? (<i>Some environmental issues cross national boundaries; thus, the government can make international agreements with other countries to deal with environmental problems.</i>) <p>Suggestion: <i>Lead a text based discussion in which you reverse the order of the questions, asking students to cite where in the constitution it states that Congress has the authority to pass environmental laws. Then, ask students to see if there is a place that the environment and/or public health is noted (there is not). Continue to have students cite the text if they are able during the remainder of the discussion.</i></p>	<p>RH.11–12.9: Integrate information from diverse sources...into a coherent understanding of an idea...</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 3: Students read The Constitution of the State of California: Excerpts (Student Edition, pages 4–7) and discuss its relationship to the environment.</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary ...source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 4: Students read independently California Connections: Superfund Sites in California (Student Edition, pages 8–10), Fact Sheet: The Federal Superfund Program (Student Workbook, page 3), and Acronym Key (Student Workbook, pages 4–5).</p> <p>Suggestion: <i>Refer to the Reading California Connections Using a Common Core Reading and Writing Focus on pages 16–19 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>RH.11–12.2: Determine the central ideas or information of a...secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>RH.11–12.9: Integrate information from diverse sources...into a coherent understanding of an idea...</p>
<p>Step 5: Examine with the students first Human Imprint and Political wall maps, then California Superfund Sites (Visual Aid #1). Lead a discussion about their similarities and implications using provided questions.</p> <p>Ask students:</p> <ul style="list-style-type: none"> What do you notice about Superfund sites in California? (<i>They are located near big population centers.</i>) How did you come to that conclusion? (<i>The light intensity and road density are highest in the same places that the Superfund sites are located.</i>) What might result from this situation? (<i>People are exposed to hazardous waste. Water supplies might be contaminated. People and businesses might have to be moved in order to clean up the waste.</i>) Who do you think takes care of cleaning up the sites and protecting the well-being of Californians and the natural environment? (<i>The companies that created the dangerous waste; the government</i>) 	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>

Student Tasks	Common Core Standards Applications
<p>Step 6: Students complete The Responsibilities of Government: An Analysis (Student Workbook, pages 6–7) as homework.</p> <p>Suggestion: <i>Require the students to cite textual evidence within their answers.</i></p> <p>Tip: <i>If Student Workbooks need to be reused from year to year, students should not write in them. Some strategies teachers use to preserve the workbooks are:</i></p> <ul style="list-style-type: none"> ■ Have students use binder paper or other lined or unlined paper. ■ Have students use a sheet protector over the page and write with a whiteboard marker. ■ Do together as a class on a projector or chart paper. ■ Project the digital fill-in version and do together as a class. ■ Students use digital devices to fill in the digital version found on the website. ■ Make student copies when necessary. 	<p>RH.11–12.7: Integrate and evaluate... information...to address a question...</p> <p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

Lesson 2: Government at Work: Cleanup at the Former Long Beach Naval Complex

Students read primary sources to see how federal, state, and local governments interact as they make decisions about the ownership, management, and use of natural systems and resources, and about who takes responsibility for implementing environmental laws. Students show they understand the complex interrelationships among different levels of government in the cleanup of the former Long Beach Naval Complex.



National Geographic Resources

- **Human Imprint** wall map
- **Political** wall map

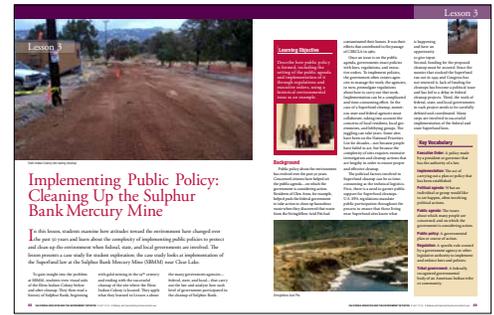
Use this correlation in conjunction with the **Procedures** located on pages 60–61 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

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>RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...</p>
<p>Step 2: Project California Superfund Sites (Visual Aid #1) and discuss with the class the impact of the Long Beach Naval Complex site.</p>	<p>RH.11–12.2: Determine the central ideas or information of a...source...</p> <p>RH.11–12.3: Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 3: Students take notes using the Note-taking Template (Student Workbook, pages 8–9) while viewing the Superfund and Military Base Closures Presentation (Visual Aids #2–11).</p> <p>Suggestion: <i>Change the questions in the Note-taking Template from closed to open-ended questions to allow for more depth of thought.</i></p>	<p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</p>

Student Tasks	Common Core Standards Applications
<p>Steps 4 and 5: In groups of four, students fill out Primary Source Analysis Chart (Student Workbook, page 10) and Primary Source Packet (Student Edition, pages 11–18). Share findings from Primary Source Analysis Chart as a class.</p> <p>Suggestion: Assign each of the four documents listed to a groups and have each one share their answers. Create a class chart based upon students' input.</p> <p>Suggestion: Remind students to use quotes in the "document says" section of the chart.</p>	<p>RH.11–12.2: Determine the central ideas...; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>SL.11–12.1: ...participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led)...</p> <p>SL.11–12.4: Present information, findings, and supporting evidence...</p> <p>WHST.11–12.8: Gather relevant information from multiple authoritative print...sources...</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</p>
<p>Step 6: Students complete Site Jurisdiction Analysis (Student Workbook, pages 11–12) for homework.</p> <p>Suggestion: Require students to cite textual evidence within their responses.</p>	<p>RH.11–12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.</p> <p>RH.11–12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.</p> <p>RH.11–12.9: Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.</p> <p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

Lesson 3: Implementing Public Policy: Cleaning Up the Sulphur Bank Mercury Mine

Students discuss public policy and how it relates to environmental issues. They read a history of the Sulphur Bank Mercury Mine, then answer questions to analyze how public policy is set and implemented through collaboration among different levels of government.



National Geographic Resources

- **Human Imprint** wall map
- **Political** wall map

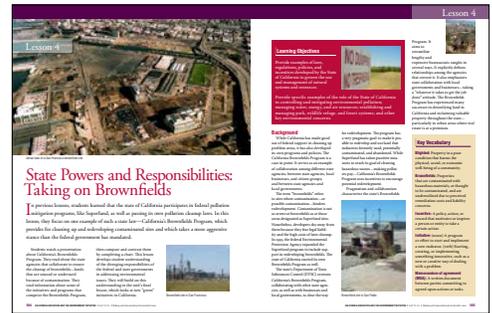
Use this correlation in conjunction with the **Procedures** located on pages 92–93 of the Teacher’s Edition. Only procedure steps with a Common Core correlation are included in the table below.

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>RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...</p>
<p>Step 2: Discuss public policy with students in relation to the projection of Elem Indian Colony: Before Cleanup 1–3 (Visual Aids #12–14).</p>	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 3: Using the Political and Human Imprint wall maps and California Superfund Sites (Visual Aid #1), discuss the location of the Sulphur Bank Mercury.</p>	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 4: Students take notes on A History of the Sulphur Bank Mercury Mine (Student Edition, page 19).</p> <p>Suggestion: <i>The instructions say “tell students to make notes.” Instead, instruct them in “Cornell”-style notes in which they cite textual evidence on the left, and on the right they summarize, make connections, and ask questions. Then, invite students to share the citations they noted.</i></p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p>

Student Tasks	Common Core Standards Applications
<p>Step 5: Discuss A History of the Sulphur Bank Mercury Mine using the following prompts:</p> <ul style="list-style-type: none"> ■ How have attitudes about the natural environment changed since mining began at Sulphur Bank? (<i>Originally, mining companies and nearby residents behaved as if cleaning up waste and restoring damaged sites was not important. Now people believe that it is important to clean up hazardous materials.</i>) ■ How has that attitude affected public policy? (<i>The residents near Clear Lake lobbied to get the federal government to make the SBMM a Superfund site. Once it was listed on the National Priorities List, the federal government is obligated to enforce the law to get the site cleaned up.</i>) ■ What have you learned about the implementation of public policy? (<i>That it involves different levels of government and a lot of different agencies and groups; that it takes a long time; that it requires a lot of cooperation.</i>) ■ Why did it take so long to implement policy at SBMM? (<i>Because there were so many groups—including local and tribal governments—that had to participate in the process; because money had to be secured.</i>) 	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 6: Students complete Synthesizing the Ideas independently (Student Workbook, pages 13–14).</p>	<p>WHST.11–12.1: Write arguments focused on <i>discipline-specific content</i>.</p> <p>a) Introduce precise, knowledgeable claim(s), establish the significance of the claim(s),...and create an organization that logically sequences the claim(s),...reasons, and evidence.</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</p> <p>WHST.11–12.10: Write routinely over... shorter time frames...</p>

Lesson 4: State Powers and Responsibilities: Taking on Brownfields

Students participate in a survey about “carrot” or “stick” policy approaches. They view a presentation about brownfields and use information to complete a chart on California’s Brownfields Program. A discussion about state efforts to redevelop brownfields concludes the lesson.



Use this correlation in conjunction with the **Procedures** located on pages 108–109 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>RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...</p>
<p>Step 1: Discuss brownfields cleanup with students after discussing the multiple approaches used by agencies to encourage compliance.</p>	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 2–6: Present information provided in California’s Brownfields Program: An Overview (Visual Aid #18), What Are Brownfields? (Visual Aid #19), Sighting Similarities (Visual Aid #20), Brownfields Cleanup (Visual Aid #21), California’s Brownfields (Visual Aid #22), Why Should We Care? (Visual Aid #23), and A Cooperative Effort (Visual Aid #24).</p> <p>Project The MOA (Visual Aid #25) and ask students:</p> <ul style="list-style-type: none"> ■ What can you infer about how government agencies interacted before the MOA? (<i>Before the MOA, it was not clear which agency had which task; as a result, a lot of tasks were done twice or not at all, and the cleanup and redevelopment process was slowed down.</i>) ■ What does your inference suggest about the workings of state government? (<i>This suggests that state government is big and complex. There are a lot of different agencies that comprise it, and sometimes the responsibilities of each agency are not clear.</i>) <p>Suggestion: Have students cite evidence to support their answers.</p>	<p>RH.11–12.2: Determine the central ideas...; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>SL.11–12.3: Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric...</p> <p>SL.11–12.4: Present information... such that listeners can follow the line of reasoning... Use appropriate eye contact, adequate volume, and clear pronunciation. CA</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</p> <p>WHST.11–12.10: Write routinely over... shorter time frames...</p>

Student Tasks	Common Core Standards Applications
<p>Step 7: In groups of four, students complete Comparing Components of the Brownfields Program (Student Workbook, pages 15–16).</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...in groups...) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 8: Project The Workings of Government (Visual Aid #26) and lead a discussion so that class can complete Comparing Components of the Brownfields Program.</p>	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...in groups...) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 10: Project Reflection (Visual Aid #28) and discuss using these prompts:</p> <ul style="list-style-type: none"> ■ When you look at the goals of the California Brownfields Program, do you think the state is using a “carrot” or a “stick” to clean up and redevelop contaminated land? (<i>The state is using a “carrot.” Many of the programs offer incentives to landowners and land buyers to make it safe for them to deal with brownfields. Safety refers to their being protected from being held financially liable for cleaning up property they did not pollute or being sued by someone who was hurt by that contamination. The “stick” approach would make landowners and buyers pay for cleaning up any polluted land they owned, even if they did not cause the pollution of that land.</i>) ■ What would be an example of the other approach? 	<p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...in groups...) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>
<p>Step 11: Students complete Comparing Components of the Brownfields Program independently.</p>	<p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11–12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

Lesson 5: Thinking “Green”: A New State Approach

Students read about California’s Green Chemistry Initiative and write about the state’s continuing efforts to mitigate environmental damage and protect public health.



Use this correlation in conjunction with the **Procedures** located on pages 132–133 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>RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...</p>
<p>Step 2: Students read California’s Green Chemistry Initiative (Student Workbook, pages 17–19) and underline the three points that they think are most important in the article.</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p>
<p>Steps 3 and 4: Lead a discussion about incentivizing green chemistry using these prompts:</p> <ul style="list-style-type: none"> ■ What incentives would be helpful in getting businesses to make green chemistry a priority? ■ What kinds of incentives could the state government provide to encourage businesses to make green chemistry a priority? ■ What about the federal government? ■ What about local government? <p>Record responses on the What if...? Chart and code them with “L,” “S,” or “F” to indicate the appropriate level of government.</p> <p>Ask students:</p> <ul style="list-style-type: none"> ■ What are the benefits of using incentives to encourage green chemistry? (<i>Offering incentives bypasses the problem of endless lawsuits that regulations sometimes lead to. Therefore, incentives encourage the process to take root more quickly than regulations.</i>) ■ What are the benefits of using regulations to encourage the development of green chemistry? (<i>Companies are not likely to change their ways unless the law requires them to do so.</i>) ■ Why is prevention better than cleaning up the pollution after it has been released into the environment? (<i>Prevention is less expensive and easier than cleaning up the hazardous waste after it has spread in the ground or water.</i>) 	<p>RH.11–12.7: Integrate and evaluate multiple sources of information presented in diverse formats...in order to address a question or solve a problem.</p> <p>SL.11–12.1: Initiate and participate effectively in a range of collaborative discussions (...teacher-led) with diverse partners on <i>grades 11–12 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly and persuasively.</p>

Student Tasks	Common Core Standards Applications
<p>Step 5: Students complete the writing task in California’s Green Chemistry Initiative independently.</p> <p>Suggestion: Change the prompt to “Why should the federal government adopt California’s Green Chemistry Initiative on a national level?” and have students write their essay with a defensible thesis.</p>	<p>RH.11–12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>WHST.11–12.1: Write arguments focused on <i>discipline-specific content</i>.</p> <ul style="list-style-type: none"> a) Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims,... b) Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases. c) Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d) Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e) Provide a concluding statement or section that follows from or supports the argument presented. <p>WHST.11–12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11–12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>WHST.11–12.9: Draw evidence from informational texts to support analysis, reflection, and research.</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

History and social studies 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; note any gaps or inconsistencies; note the date and origin of the source and whether it is primary or secondary. **(RH.11–12.1)**
- Note how the author sets up the central ideas or information; trace the relationship among key details and ideas; summarize how key events or ideas develop over the course of the text. **(RH.11–12.2)**
- Analyze a series of events described in the text; evaluate various explanations for actions or events; determine which explanation best accords with textual evidence; determine whether earlier events caused later ones or simply preceded them; acknowledge where matters are left uncertain. **(RH.11–12.3)**
- Note how the author explains and refines the meaning of key terms, symbols, domain-specific words, and phrases. **(RH.11–12.4)**
- Analyze how the structure is used to emphasize key points or advance an explanation or analysis and how key sentences, paragraphs, and larger portions of the text contribute to the whole. **(RH.11–12.5)**
- Compare and evaluate the point of view of the author(s); note which details are included and emphasized; assess the author's claims, reasoning, and evidence; compare the text with other authors on the same topic. **(RH.11–12.6)**
- Note how the information in the *California Connections* text integrates with information provided throughout the unit in diverse visual, quantitative, and qualitative formats, including tables, charts, research data, and maps, in print or digital texts. **(RH.11–12.7)**
- Assess whether the author's extent of reasoning and evidence in a text support the author's claim; evaluate the author's premises, claims, and evidence. **(RH.11–12.8)**
- When other documents are included, compare and contrast findings presented in this text to those in other sources, noting when the findings support or contradict previous explanations, and identify any discrepancies. **(RH.11–12.9)**
- Note comprehension strategies for understanding text. **(RH.11–12.10)**

Note: Standard descriptions from the Reading Standards for Literacy in History/Social Studies 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, using this selection as a writing model. They also provide suggestions for teaching students to analyze text structure using the Reading Literacy Standards. Teachers can incorporate more suggestions from the list above.

RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...

- *Foundries*
- *Chrome-plating shops*
- *Waste chemicals*
- *Groundwater*

California Connections: Superfund Sites In California
Lesson 1 | page 1 of 3

Superfund Sites in California



After World War II, Americans became more mobile and wanted more conveniences—toasters, washing machines, cars, radios, electronics, and gasoline. Americans were ready to travel by plane, train, and automobile.

During the war, California attracted many manufacturing industries that supported the war effort—steel mills, foundries, chrome-plating shops, and aircraft manufacturing. After the war, businesses changed from war production to building convenience products. Industries and businesses were using chemicals for many things—tires, rubber belts, cleaning engines and metal parts, chrome plating, paints, controlling pests, and increasing crop production.

For years, people did not really think about dealing with waste chemicals, and few regulations were in place to control how the waste chemicals were discarded. Waste chemicals were flushed down drains, pumped into lakes and rivers, dumped onto the ground or into dirt pits, or sent to landfills with household garbage. By the 1960s, some rivers in the eastern United States were so



Abandoned chemical plant

polluted fish could not survive, and some rivers even caught fire. Chemicals dumped into pits contaminated the soil and often reached the groundwater—the

same groundwater people used for drinking. People complained about chemicals dumped onto the ground and into the water. Why

8 CALIFORNIA EDUCATION AND THE ENVIRONMENT CURRICULUM Unit 12.7.6. Making and Implementing Environmental Laws Student Edition

RH.11–12.3: Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

RH.11–12.8: Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information.

Suggestion: Discuss with students where they could locate sources to verify the statements presented in the text.

California Connections: Superfund Sites In California
Lesson 1 | page 2 of 3

should people be exposed to hazardous chemicals that could cause health problems like cancer? Why wasn't the government protecting the people? In 1970, President Nixon created the U.S. Environmental Protection Agency (U.S. EPA) as the lead federal regulator with the mission to protect human health and the environment.

Creating Superfund

In 1980, Congress passed legislation to allow the U.S. EPA to clean up areas contaminated with hazardous and toxic waste. Through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the U.S. EPA developed the "Superfund" program. The goal of Superfund is to clean up uncontrolled hazardous waste sites that pose a threat to the environment or human health. The U.S. EPA is responsible for identifying and assessing sites, designating toxic sites for cleanup, and managing their cleanup. The agency has the authority to compel the polluters to clean up waste or reimburse the government for its costs in cleaning up the site.

CERCLA set up an account to provide the U.S. EPA with money to pay for assessing and cleaning up nongovernment sites.



Superfund cleanup site

At first, the government raised the money in the Superfund account by taxing chemical and petroleum companies. Monies now come from various federal taxpayer funds.

Evaluating and Cleaning Up a Superfund Site

The Superfund process begins when citizens, state regulators, or U.S. EPA regional offices research and identify or discover toxic sites. When a site is discovered, the state or U.S. EPA uses trained investigators to conduct a preliminary assessment (PA). The PA determines if a site poses a threat to human health and the environment and if the threat requires further investigation. PA investigations collect readily available information about a

site and its surrounding area. If there is a need for more detailed testing, initial sampling is performed during a site inspection (SI). Using the SI data, U.S. EPA calculates a score for the site and ranks it in the Hazard Ranking System. The Hazard Ranking System score determines if a site qualifies for the National Priorities List (NPL) for Superfund cleanup. Only sites on the NPL can use Superfund money for long-term cleanup actions.

The United States has more than 1,200 Superfund sites. Approximately 100 of these sites are located in California. Because major industries are typically located in or near urban centers, about 14 million Californians live and work within a few miles of one or more NPL sites.

RH.11–12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

Suggestion: Visit the EPA website and view the page on CERCLA. Ask students if they can find references to the National Priority List and locate local Superfund sites. (www.epa.gov/superfund/policy/cercla.htm)

RH.11–12.3: Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

Suggestion: Have students research if 100 Superfund sites in California is a large number of sites or small.

RH.11–12.4: Determine the meaning of words and phrases as they are used in a text...

- Contaminants
- Oversight
- Brownfields

California Connections: Superfund Sites In California
Lesson 1 | page 3 of 3

When a site makes it onto the NPL, additional investigation is conducted to define the extent and concentration of contaminants before the cleanup process can begin. The U.S. EPA works with local leaders to learn how the community might use the site in the future to better tailor the cleanup. Experts conduct a "feasibility study" to evaluate cleanup options and the cost-effectiveness of various technologies. U.S. EPA prepares a "record of decision" document detailing the site cleanup plan, including estimates on costs and time to complete the cleanup. The cleanup process can take many years when dealing with complex sites.

During cleanup activities, U.S. EPA conducts oversight to ensure the community is protected from hazards associated with the site. Every five years, U.S. EPA reevaluates the cleanup to ensure it is still protective. When U.S. EPA determines the cleanup is complete, they delete the site from the NPL.

Brownfields

Not all sites are Superfund sites, and in 1995 U.S. EPA expanded its role under CERCLA to include funding to redevelop contaminated sites. The U.S. EPA's Brownfields Program



Hazardous waste cleanup

provides grant money to organizations and communities to clean up and redevelop potentially contaminated lands. Here in California, the Department of Toxic Substances Control (DTSC) cleans, identifies, and redevelops brownfields. DTSC has cleaned up hundreds of brownfield sites that are deemed a success to the developers and community.

One example is the Auto Club Speedway of Southern California in Fontana. The speedway was built on the former Kaiser Steel Mill site after the cleanup was complete. The speedway is just one example of how DTSC is working to put formerly contaminated properties back into use while being protective of public health and stimulating the local economy.

RH.11–12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

Suggestion: Ask students to interpret the picture.

RH.11–12.3: Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

Suggestion: Have students research the public health and economic health of the cleanup of the Kaiser Steel Mill site. Ask students to provide evidence that supports or refutes the claims made by the author.

California Common Core State Standards Descriptions

Reading Standards for Literacy in History/Social Studies

- **RH.11–12.1:** Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- **RH.11–12.2:** Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- **RH.11–12.3:** Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
- **RH.11–12.4:** Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
- **RH.11–12.7:** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
- **RH.11–12.8:** Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information.
- **RH.11–12.9:** Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

Speaking and Listening Standards

- **SL.11–12.1:** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 11–12 topics, texts, and issues*, building on others’ ideas and expressing their own clearly and persuasively.
- **SL.11–12.3:** Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.
- **SL.11–12.4:** Present information, findings, and supporting evidence (**e.g., reflective, historical investigation, response to literature presentations**), conveying a clear and distinct perspective **and a logical argument**, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks. **Use appropriate eye contact, adequate volume, and clear pronunciation. CA**
 - b) **Plan and present an argument that: supports a precise claim; provides a logical sequence for claims, counterclaims, and evidence; uses rhetorical devices to support assertions (e.g., analogy, appeal to logic through reasoning, appeal to emotion or ethical belief); uses varied syntax to link major sections of the presentation to create cohesion and clarity; and provides a concluding statement that supports the argument presented. (11th or 12th grade.) CA**
- **SL.11–12.5:** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

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

- **WHST.11–12.1:** Write arguments focused on *discipline-specific content*.
 - a) Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
 - b) Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.
 - c) Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
 - d) Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
 - e) Provide a concluding statement or section that follows from or supports the argument presented.
- **WHST.11–12.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **WHST.11–12.6:** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
- **WHST.11–12.7:** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- **WHST.11–12.8:** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
- **WHST.11–12.9:** Draw evidence from informational texts to support analysis, reflection, and research.
- **WHST.11–12.10:** Write routinely over extended time frames (time for 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.