

12.3.1 Lesson 11

Introduction

In this lesson, students prepare for the Mid-Unit Assessment in 12.3.1 Lesson 12 by engaging in a discussion of Diamond's claims in key excerpts from *Guns, Germs, and Steel*, analyzing whether his evidence is relevant and sufficient and whether his reasoning is valid. This lesson and the 12.3.1 Mid-Unit Assessment build upon students' previous work in 12.3.1 Lessons 6 and 8 with identifying components of an argument and the relationships across those components. Student learning is assessed via completion of the Evaluating Evidence and Reasoning Tool at the end of the lesson.

For homework, students review and expand their notes, tools, and annotations in preparation for the following lesson's Mid-Unit Assessment. In addition, students continue to conduct pre-searches to gather potential sources for research. Students find three more potential sources for at least one area of investigation and record the following information: author's name, issue, source, location, publication date, and general content/key ideas.

Standards

Assessed Standard(s)	
CCRA.R.8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
Addressed Standard(s)	
W. 11-12.9.b	<p>Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grades 11-12 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy (e.g., <i>The Federalist</i>, presidential addresses]”).</p>
SL. 11-12.1.a	<p>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and 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>a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p>

Assessment

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Assessment(s)

Student learning is assessed via completion of the Evaluating Evidence and Reasoning Tool at the end of the lesson.

- The Evaluating Evidence and Reasoning Tool serves as the assessment for this lesson.

High Performance Response(s)

A High Performance Response should:

- Identify a specific excerpt from the text (e.g., *Guns, Germs, and Steel*, pages 71-78).
- Identify a claim in this excerpt (e.g., “Pizarro’s capture of Atahualpa illustrates the set of proximate factors that resulted in Europeans’ colonizing the New World” (p. 78)).
- Identify evidence and reasoning in the text (e.g., Evidence in the text includes: the use of horses at Cajamarca, which “exemplifies a military weapon that remained potent for 6,000 years, until the early 20th century, and that was eventually applied on all the continents” (p. 74); the fact that “Pizarro came to Cajamarca by means of European maritime technology” (p. 75); and the fact that the “Spaniards’ had steel swords and other weapons, steel armor, guns, and horses” (p. 72), giving them a military advantage over Pizarro. Diamond reasons that these factors amounted to “imbalances of equipment [which] were decisive in innumerable other confrontations of Europeans with Native Americans and other peoples” (p. 72). He explains that there were dozens of times when “a few dozen European horsemen routed thousands of Indians with great slaughter” (pp. 72-73) and reasons that the same set of factors played the deciding role in other conflicts between colonizers and natives.).
- Evaluate whether the evidence is relevant and sufficient (e.g., Each example of evidence is relevant to the claim because it provides a specific example of one of “the set of proximate factors” (p. 78) that led to Atahualpa’s defeat and was instrumental in many other conflicts between European colonizers and New World natives. The evidence selected is sufficient to support the claim because it shows how several combined factors ensured Atahualpa’s capture and the Spaniards’ victory at Cajamarca. Diamond provides further evidence to indicate that these same factors were instrumental in the “Europeans’ colonizing of the New World” (p. 78).).
- Evaluate whether the reasoning is valid (e.g., The reasoning is valid because Diamond uses sound logic to demonstrate that the factors of military disparity and “equipment” (p. 72) made the difference between victory and defeat at Cajamarca and many other times in history between colonizers and natives).
- See Model Evaluating Evidence and Reasoning Tool at the end of this lesson.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*
Additional vocabulary to support English Language Learners (to provide directly)
• None.*

*Because this is not a close reading lesson, there is no specified vocabulary. However, in the process of returning to the text, students may uncover unfamiliar words. Teachers can guide students to make meaning of these words using the strategies outlined in L.11-12.4.a-d.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> Standards: CCRA.R.8, W.11-12.9.b, SL.11-12.1.a Text: <i>Guns, Germs, and Steel</i> by Jared Diamond, pages 13-25, 65-78, 229-249, and 439-446 	
Learning Sequence: <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Evaluating Evidence and Reasoning Evaluating Evidence and Reasoning Tool and Assessment Closing 	<ol style="list-style-type: none"> 5% 10% 40% 40% 5%

Materials

- Copies of the Evaluating Evidence and Reasoning Tool for each student

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Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
►	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and the assessed standard for this lesson: CCRA.R.8. In this lesson, students prepare for the Mid-Unit Assessment in 12.3.1 Lesson 12 by engaging in a small group discussion and evaluating the author's use of evidence and reasoning to support one of his claims in the text.

- Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to take out their responses to the previous lesson's homework assignment. (Continue to conduct your pre-searches. Find three more potential sources for at least one area of investigation and record the following information: author's name, issue, source, location, publication date, and general content/key ideas.) Instruct students to form pairs and articulate their selected area of investigation before briefly explaining how each source relates to that area of investigation.

- Student responses vary according to the research conducted.

Activity 3: Evaluating Evidence and Reasoning

40%

Explain to students they are beginning to prepare for the Mid-Unit Assessment in 12.3.1 Lesson 12 by identifying several of Diamond's claims and evaluating the evidence and reasoning he uses to support his claims. Explain to students that they are building on their previous work with identifying components of an argument and the relationships across these components from 12.3.1 Lessons 6 and 8.

Display the 12.3.1 Mid-Unit Assessment prompt:

Choose an excerpt from *Guns, Germs, and Steel*. Identify one of Diamond's supporting claims; evaluate whether the evidence is relevant and sufficient and the reasoning is valid to support that claim.

- Students listen and read the 12.3.1 Mid-Unit Assessment prompt.

Remind students that each excerpt contains several claims. For the Mid-Unit Assessment, students may select any claims that include evidence and reasoning.

Instruct students to form groups to discuss how to evaluate evidence and reasoning. Instruct students to answer the following questions before sharing out with the class.

What is relevant evidence?

- Relevant evidence connects directly to the claim and is related to the issue in an appropriate way.

What is sufficient evidence?

- Sufficient evidence thoroughly reinforces the claims in an argument. One piece of powerful evidence may be sufficient to support a claim, or several pieces of evidence may be collectively sufficient to support a claim.
- **Differentiation Consideration:** Consider reminding students that *evidence* refers to the topical and textual facts, events, and ideas from which the claims of an argument arise, and which are cited to support those claims.

What is valid reasoning?

- Valid reasoning is the sound or logical relationship among ideas, including relationships among claims and relationships across evidence.

Lead a brief whole-class discussion of student responses.

Post or project the following model claim, evidence, and reasoning from *Guns, Germs, and Steel*:

Claim: “Diseases endemic in Europe played a decisive role in European conquests, by decimating many peoples on other continents.” (p. 75)

Evidence: “Smallpox ... killed the Inca emperor Huayna Capac and most of his court around 1526, and then immediately killed his designated heir, Ninan Cuyuchi.” (pp. 74-75) The death of the designated heir led to a civil war, which further weakened the power of the Inca Empire.

Evidence: The Europeans brought with them smallpox and other diseases, to which they had immunity but which “decimat[ed]” (p. 75) the indigenous population of the New World. “Throughout the Americas, diseases introduced by Europeans spread from tribe to tribe far in advance of the Europeans themselves, killing an estimated 95 percent of the pre-Columbian Native American population.” (p. 75)

Reasoning: Diamond reasons that if smallpox had not been introduced to the New World “the Spaniards would have faced a united Empire” (p. 75) and may not have been victorious at Cajamarca.

Lead a brief whole-class discussion of student responses.

Instruct student groups to briefly discuss the following questions before sharing out with the entire class.

Is the evidence relevant to the claim?

- The evidence is relevant because it directly relates to the central point of the claim. It illustrates how disease introduced by the colonizing peoples, the Europeans, weakened the political organization of native groups and killed “many peoples on other continents” (p. 75), making colonization easier.

Is the evidence sufficient to support the claim?

- The evidence selected is sufficient to support the claim. The evidence illustrates that disease introduced by the Europeans was an ultimate cause in the fall of the Inca Empire because the leadership was weakened by smallpox. The evidence also illustrates how, within other parts of the New World, disease was a major factor in weakening the native peoples, allowing for easier conquest.

Is the reasoning valid?

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- Diamond’s reasoning is valid. Diamond connects the local effects of smallpox at Cajamarca and the resulting conquest of the Inca Empire to other instances where disease played a role in the conquest of the New World.

Lead a brief whole-class discussion of student responses.

Explain to students that invalid reasoning may be called *fallacious reasoning*. Inform students that *fallacious reasoning* means reasoning that includes or is based on a false notion or belief, or invalid reasoning. Guide students through the following model of fallacious reasoning.

- **Claim:** “New Guineans are smarter than Westerners.” (p. 20)
- **Evidence:** In European societies, “infectious epidemic diseases of dense populations (such as smallpox) were historically the major cause of death, while murders were relatively uncommon and a state of war was the exception rather than the rule” (p. 20). “Instead, traditional New Guineans suffered high mortality from murder, chronic tribal warfare, accidents, and problems in procuring food” (p. 20). Therefore New Guineans are “[i]ntelligent people [who] are likelier than less intelligent ones to escape those causes of high mortality (p. 20). “In the average American household, the TV set is on for seven hours per day.” (p. 21) “Almost all studies of child development emphasize the role of childhood stimulation and activity in promoting mental development, and stress the irreversible mental stunting associated with reduced childhood stimulation” (p. 21).
- **Is the evidence relevant and sufficient?** The evidence is not sufficient. The first two pieces of evidence are based on the evolutionary theory of natural selection. The last piece of evidence is weak because it is related to watching too much television, which focuses on a single aspect of society, not taking into account other aspects of society. In addition, the statistical evidence that “[i]n the average American household, the TV set is on for seven hours per day” (p. 21) does not directly support or relate to the claim because it is not clear that Americans, specifically children, are necessarily watching TV during that block of time.
- **Reasoning:** Diamond reasons that because there are fewer epidemics in New Guinea than in Europe, intelligence is naturally selected in New Guineans. Thus, Diamond reasons that disease kills all kinds of people in Europe, whether they are intelligent or not. Therefore, Diamond explains that more New Guineans than Westerners have the genetic capacity for natural intelligence. He also reasons that “almost all studies of child development emphasize the role of childhood stimulation and development in promoting mental development” (p. 21), thus, reasoning that “[t]his effect surely contributes a non-genetic component to the superior average mental function displayed by New Guineans” (p. 21).
- **Is the reasoning valid?** Diamond’s reasoning that intelligence is due to natural selection is fallacious because intelligence is not static or unchanging, and it can be developed.

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Diamond's reasoning that Western children are less intelligent due to Americans watching television "seven hours per day" (p. 21) is not valid because his reasoning is based on two pieces of unrelated evidence, including the hours Americans spend watching television and childhood stimulation. Also, Western children may be receiving just as much "childhood stimulation and activity" (p. 21), although via different means than New Guinean children.

Activity 4: Evaluating Evidence and Reasoning Tool and Assessment

40%

Distribute copies of the Evaluating Evidence and Reasoning Tool to all students. Instruct students to examine the tool.

- Students examine the Evaluating Evidence and Reasoning Tool.
- Consider displaying the previously read excerpts of *Guns, Germs, and Steel* (pages 13-25, 65-78, 229-249, and 439-446).

Instruct small groups to spend the remainder of the lesson reviewing excerpts from *Guns, Germs, and Steel* to identify claims, evidence, and reasoning in the text and complete the Evaluating Evidence and Reasoning Tool (W.11-12.9.b).

- See the Model Evaluating Evidence and Reasoning Tool at the end of this lesson.
- **Differentiation Consideration:** If students struggle to complete the Evaluating Evidence and Reasoning Tool, consider modeling how to complete the tool.
- Consider reminding students of their previous work with SL.11-12.1.a, as this discussion requires that students come to class having read the material and asks them to explicitly draw on evidence from the text to support their discussion.

Lead a brief whole-class discussion of students' work on their Evaluating Evidence and Reasoning Tools. Ask students to look at their responses from their tools and discuss the following question:

Identify one of Diamond's claims and evaluate whether the evidence is relevant and sufficient and the reasoning is valid.

- See Model Evaluating Evidence and Reasoning Tool at the end of this lesson.

Inform students that they have the opportunity to add to their Evaluating Evidence and Reasoning Tools for homework.

Activity 5: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to review and expand their notes, tools, and annotations in preparation for the following lesson's Mid-Unit Assessment. In addition, students should continue to conduct pre-searches to gather potential sources for research. Instruct students to find three more potential sources for at least one area of investigation and record the following information for each source: author's name, issue, source, location, publication date, and general content/key ideas.

- Students follow along.

Homework

Review and expand your notes, tools, and annotations in preparation for the following lesson's Mid-Unit Assessment. In addition, continue to conduct pre-searches to gather potential sources for research. Find three more potential sources for at least one area of investigation and record the following information: author's name, issue, source, location, publication date, and general content/key ideas.

Evaluating Evidence and Reasoning Tool

Name :		Class :		Date :	
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Directions: Identify and record the claim in the text, as well as the evidence and reasoning that support the claim. Remember that *evidence* supports claims and *reasoning* connects evidence to a claim. *Reasoning* may also explain the relationship among claims or across evidence. Then, evaluate whether the evidence is relevant and sufficient and the reasoning is valid.

Text:

Claim:

Evidence:

Evidence 1:

Evidence 2:

Evidence 3:

Relevance:

Relevance:

Relevance:

Explain whether the evidence is sufficient to support the claim.

Reasoning:

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Is this reasoning valid? Explain.

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Model Evaluating Evidence and Reasoning Tool

Name :		Class :		Date :	
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Directions: Identify and record the claim in the text, as well as the evidence and reasoning that support the claim. Remember that *evidence* supports claims and *reasoning* connects evidence to a claim. *Reasoning* may also explain the relationship among claims or across evidence. Then, evaluate whether the evidence is relevant and sufficient and the reasoning is valid.

Text :	<i>Guns, Germs, and Steel</i> , pages 71-78
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Claim:

“Pizarro’s capture of Atahualpa illustrates the set of proximate factors that resulted in Europeans’ colonizing the New World instead of Native Americans’ colonizing Europe.” (p. 78)

Evidence:

Evidence 1: The use of horses at Cajamarca “exemplifies a military weapon that remained potent for 6,000 years, until the early 20th century, and that was eventually applied on all the continents” (p. 74).

Evidence 2: “Pizarro came to Cajamarca by means of European maritime technology.” (p. 75)

Evidence 3: “The Spaniards had steel swords and other weapons, steel armor, guns, and horses” (p. 72), giving them a military advantage over Pizarro.

<p>Relevance: The evidence directly addresses one of the immediate or “proximate” (p. 78) reasons for why the Spaniards were successful in defeating Atahualpa’s empire despite incredible odds. The Incans lacked the more advanced weaponry of horses, creating a “military disparity” (p. 72) that the Spaniards and other Europeans were able to capitalize on in their conquest of the “New World” (p. 78).</p>	<p>Relevance: This evidence is relevant because it also addresses one of the “proximate” (p. 78) reasons for the Spaniards’ victory in defeating Atahualpa. Without the ability to navigate the ocean, Atahualpa was unable to venture “out of South America” (p. 75) and “Atahualpa [didn’t] instead try to conquer Spain” (p. 75). Thus, natives of the New World, lacking maritime technology, were unable to colonize Europe whereas Europeans had the transportation to colonize the New World.</p>	<p>Relevance: The evidence is relevant because it directly relates to the key points of the claim: it illustrates the military disparity in play at the collision at Cajamarca. The evidence also shows that “[s]uch examples of the power of guns against native peoples lacking guns could be multiplied indefinitely” (p. 73) by extending these “proximate” (p. 78) factors to other collisions between colonizers and native people.</p>
<p>Explain whether the evidence is sufficient to support the claim.</p>		
<p>The selected evidence is sufficient to support the claim because it shows three different factors that contributed to Atahualpa’s capture and shows why the Spaniards were victorious at Cajamarca. Diamond then applies the same evidence to other examples of colonizers defeating native people.</p>		
<p>Reasoning:</p>		
<p>Diamond reasons that these “proximate factors” (p. 78) amounted to “imbalances of equipment [which] were decisive in innumerable other confrontations of Europeans with Native Americans and other peoples” (p. 72).</p>		
<p>Is this reasoning valid? Explain.</p>		
<p>The reasoning is valid because Diamond uses sound logic to demonstrate that the factors of military disparity and “equipment” (p. 72) made the difference between victory and defeat at Cajamarca and at many other times in history between colonizers and natives.</p>		

Model Evaluating Evidence and Reasoning Tool

Name :		Class :		Date :	
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Directions: Identify and record the claim in the excerpt, as well as the evidence and reasoning that support the claim. Remember that *evidence* supports claims and *reasoning* connects evidence to a claim. *Reasoning* may also explain the relationship among claims or across evidence. Then, evaluate whether the reasoning is valid and the evidence is relevant and sufficient.

Text
: *Guns, Germs, and Steel*, pages 439-446

Claim:

The Optimal Fragmentation Principle is that “innovation proceeds most rapidly in a society with some optimal intermediate degree of fragmentation: a too-unified society is at a disadvantage, and so is a too-fragmented society” (p. 441).

Evidence

Evidence 1: “There are a thousand tiny beer companies in Germany, shielded from competition with one another because each German brewery has virtually a local monopoly, and they are also shielded from competition with imports.” (p. 441)

Evidence 2: Diamond states that in Japan, the food-processing industry is not as efficient as other industries. He notes that “food-processing companies enjoy local monopolies,” while “Japanese steel, metal, car, car parts, camera, and consumer electronics companies compete fiercely and have higher productivities” (p. 443). Also, Diamond states that the “Japanese food-producing companies ... don’t learn the best international methods for producing food” (p. 443) because they are isolated.

Evidence 3: Diamond compares Route 128 to Silicon Valley. He states that “Silicon Valley consists of lots of companies that are fiercely competitive with one another” (p. 444) but that there is a great deal of collaboration across the companies. On the other hand, the Route 128 corridor contains companies that are “much more secretive and insulated from one another” (p. 444).

<p>Relevance: This evidence is directly relevant to the claim because it presents a situation in which there is too much fragmentation, which results in fragmented local monopolies that are unable to compete globally.</p>	<p>Relevance: This evidence is directly relevant to the claim because it presents a situation in which “local monopolies” (p. 443) create “fragmentation” (p. 444) and are not able to engage in competition or learn or communicate “the best international methods” (p. 443) to increase productivity.</p>	<p>Relevance: This evidence is directly relevant to the claim because the Silicon Valley companies appear to conform to the “optimal intermediate degree of fragmentation” (p. 441), resulting in competition and collaboration, while the Route 128 corridor does not allow for enough collaboration or “unity” (p. 444) to ensure best practices or “innovation” (p. 444).</p>
<p>Explain whether the evidence is sufficient to support the claim.</p>		
<p>The evidence is not sufficient to draw a conclusion. Simply comparing different countries and industries with different histories and contexts does not lead to a solid conclusion that “you don’t want either excessive unity or excessive fragmentation” (p. 444) because that is not the only factor influencing productivity. Further, the evidence is focused on specific industrial sectors that are influenced by “local tastes” (p. 442) within a country that are affected by a variety of outside factors that cannot be accounted for in just the context of “fragmentation” or “unity” (p. 444). Germany or Japan may be able to change their “organization” (p. 444) but factors like “local tastes” (p. 442) will also continue to influence production.</p>		
<p>Reasoning:</p>		
<p>Diamond reasons that “[W]e may be able to extract a general principle about group organization. If your goal is innovation and competitive ability, you don’t want either excessive unity or excessive fragmentation. Instead, you want your country, industry, industrial belt, or company to be broken up into groups that compete with one another while maintaining relatively free communication.” (p. 444)</p>		
<p>Is this reasoning valid? Explain.</p>		
<p>The reasoning is valid because Diamond limits the principle to “innovation and competitive ability” (p. 444) among industries. And, although he uses only a few examples to support his claim, Diamond draws logical relationships between them, illustrating how excessively fragmented or isolated industries suffer when it comes to competing in the global market.</p>		