

Grade 4 Informational Mini-Assessment

Basic Archaeology Pair

This grade 4 mini-assessment is based on two texts that focus on the topic of archaeology. These texts are considered to be texts worthy of students' time to read and also meet the expectations for text complexity at grade 4. Assessments aligned to the Common Core State Standards (CCSS) will employ quality, complex texts such as these.

Questions aligned to the CCSS should be worthy of students' time to answer and therefore do not focus on minor points of the texts. Questions also may address several standards within the same question because complex texts tend to yield rich assessment questions that call for deep analysis. In this mini-assessment, there are selected-response questions that address the Reading Standards listed below and one constructed-response question that addresses the Writing and Reading Standards. There are also items that replicate how technology may be used on assessments, but adapted to paper and pencil format.

We encourage educators to give students the time that they need to read closely, answer the questions, and write to the sources. While we know that it is helpful to have students complete the mini-assessment in one class period, we encourage educators to allow additional time as necessary.

The questions align to the following standards:

RI.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
RI.4.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.
RI.4.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
RI.4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
RI.4.8	Explain how an author uses reasons and evidence to support particular points in a text.
RI.4.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
W.4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
W.4.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.

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The assessment questions in this document align with the CCSS and reflect the instructional shifts implied by the standards. To learn more about these topics, please go to the following link:

www.achievethecore.org

Grade 4 Mini-Assessment – Basic Archaeology Pair

Today you will read two articles about archaeology, which is the study of what people and places were like long ago. You will then answer several questions based on the texts. I will be happy to answer questions about the directions, but I will not help you with the answers to any questions. You will notice as you answer the questions that some of the questions have two parts. You should answer Part A of the question before you answer Part B.

Take as long as you need to read and answer the questions. If you do not finish when class ends, come see me to discuss the ways you may have additional time.

Now read the articles and answer the questions. I encourage you to write notes in the margin as you read.

Article 1: Basic Archaeology: What's a Dig?

- 1 One of the main things archaeologists do in their line of work is the dig. This is a project designed to find out more about a specific area and what it was like many, many years ago. Archaeologists might be looking for animal skeletons or plant remains. They might be looking for weather patterns or fire damage.
- 2 Whatever they're looking for, it usually involves digging. Why? Well, first of all, the wind is constantly blowing fresh dirt and trash all over the world. This airborne debris lands on the ground in tiny layers. After years of these tiny layers building up, what was once on the surface is buried underground. It's not that the ground has really sunk; it's more that more layers have been added on top.
- 3 So, archaeologists use their pickaxes and their drills and their brushes to find and piece together clues to what happened in an area's past. And the more they find, the more they understand.
- 4 For instance, by discovering seeds, archaeologists can also discover what kinds of crops the people who lived there grew or, if people didn't live there at all, what kind of wild plants or fruits or vegetables grew there.
- 5 Also, a dig might turn up fragments of clothing or shoes, giving archaeologists clues to what kind of clothing the people who lived there wore.
- 6 The basic idea behind the dig is to discover the past.

Article 2: Basic Archaeology: What's a Midden¹?

- 1 It might sound a little silly, but archaeologists can find out a lot about people by looking through their trash.
- 2 People throw away things because those things aren't important or because the people have too much of those things already. By sifting through the garbage pile of a civilization, archaeologists can find out what was important to those people (or what they had too much of).
- 3 Why is this important? Sometimes, garbage is all that's left of a people. Especially if that people has been conquered by others, the buildings, tools, and food were probably consumed or destroyed long ago. A people's trash, especially if it was also trash to the invaders, might be left alone, enabling archaeologists to discover more about a people who left few clues to what they liked and didn't like.
- 4 Did they wear certain clothes? What kinds of food did they eat? What kind of tools did they use or throw away? Answers to all these questions can be found by sifting through a midden.
- 5 It could also be possible to find out more about a conquered people by searching the midden of their conquerors. Some invaders, not really knowing what's valuable to the people they're conquering, might very well throw away things that are extremely valuable. It is left to archaeologists to find these things and piece together the life stories of people long since conquered.
- 6 One person's trash could be another person's treasure.

Basic Archaeology: "What's a Dig?" and "What's a Midden?" from socialstudiesforkids.com by David White, copyright 2002-2011.

¹ Pile of discarded objects; heap of trash

QUESTIONS

1. In paragraph 2 of Article 1, “What’s a Dig?” which two words help the reader understand what the word “debris” means?
 - A. wind
 - B. dirt
 - C. trash
 - D. ground
 - E. layers
 - F. surface

2. What does the information in paragraph 3 in Article 1 help the reader understand about archaeologists?
 - A. What types of tools they must use
 - B. How long it takes to complete a dig
 - C. How many clues are found at each dig
 - D. What they learn about people from the past

3. In paragraph 6 of Article 1, the author states, “The basic idea behind the dig is to discover the past.” Circle the two paragraphs in Article 1 that support the idea that digs can tell us specific information about people who lived in the past.

4. The following question has two parts. Answer part A and then answer part B.

Part A: According to Article 1, what do archaeologists study in addition to people who lived long ago?

- A. The reasons an area became full of debris long ago
- B. The general conditions in an area long ago
- C. The governments of the people long ago
- D. The ways people worked together long ago

Part B: Which detail from Article 1 best supports the answer to Part A?

- A. "It's not that the ground has really sunk; it's more that more layers have been added on top."
- B. "And the more they find, the more they understand."
- C. "For instance, by discovering seeds, archaeologists can also discover what kinds of crops the people who lived there grew or, if people didn't live there at all, what kind of wild plants or fruits or vegetables grew there."
- D. "Also, a dig might turn up fragments of clothing or shoes, giving archaeologists clues to what kind of clothing the people who lived there wore."

5. The following question has two parts. Answer Part A and then answer Part B.

Part A: Which sentence best states the main idea of Article 2, "What's a Midden?"

- A. Conquering other people destroys details about the past.
- B. Learning about the past is more important than ever.
- C. Being an archaeologist is a very difficult job.
- D. Looking at old trash gives archaeologists useful knowledge.

Part B: Which detail from the article best support the answer to Part A?

- A. "By sifting through the garbage pile of a civilization, archaeologists can find out what was important to those people (or what they had too much of)."
- B. "Sometimes, garbage is all that's left of a people."
- C. "Especially if that people has been conquered by others, the buildings, tools, and food were probably consumed or destroyed long ago."
- D. "Some invaders, not really knowing what's valuable to the people they're conquering, might very well throw away things that are extremely valuable."

6. Read the following sentence from Article 2.

A people's trash, especially if it was also trash to the invaders, might be left alone, enabling archaeologists to discover more about a people who left few clues to what they liked and didn't like.

Which point is the author supporting by including this sentence in the article?

- A. how difficult it is to learn about people based on the objects they have left behind
- B. that objects that were considered worthless in the past are also worthless in the present
- C. that throughout history people have fought over valuable objects
- D. why some objects people used in the past may have survived to the present

7. The column on the left lists some important ideas about archaeologists. One idea is found in both Article 1 and Article 2. One idea is found in Article 1 only, and one idea is found in Article 2 only.

Write the ideas in the correct columns below. One idea will not be used.

Important Ideas About Archaeologists	Both Articles	Article 1	Article 2
Archaeologists dig in the ground because old objects are found underground.			
An archaeologist's job is to learn about what things were like in the past.			
An archaeologist has to work slowly and carefully so that clues are not damaged.			
Archaeologists learn a lot about the past by digging in buried trash.			

Information for Teachers: Quantitative and Qualitative Analyses of the Texts

Regular practice with complex texts is necessary to prepare students for college and career readiness, as outlined in Reading Standard 10. The articles for this mini-assessment have been placed at grade 4, and the process used to determine this grade level placement is described below. Appendix A to the CCSS and the Supplement to Appendix A: New Research on Text Complexity lay out a research-based process for selecting complex texts.

1. Place a text or excerpt within a **grade band** based on at least one² quantitative measure according to the research-based conversion table provided in the Supplement to Appendix A: New Research on Text Complexity (www.corestandards.org/resources).
2. Place a text or excerpt at a **grade-level** based on a qualitative analysis.

Quantitative Analysis

Basic Archaeology: What’s a Dig? (data circled in orange)	Quantitative Measure #1	Quantitative Measure #2
	FK: 6.8	Lexile: 970
Basic Archaeology: What’s a Midden? (data circled in blue)	FK: 8.0	Lexile: 980

After gathering the quantitative measures, the next step is to place the quantitative scores in the Conversion Table found in the Supplement to Appendix A (www.corestandards.org/resources) and determine the **grade band** of the text. *Note: With literature, it is sometimes true that the quantitative measures indicate grade bands that are lower than one would expect. In these rare cases, qualitative reviews will show the text really belongs in a higher grade band.*

Figure 1 reproduces the conversion table from the Supplement to Appendix A, showing how the initial results from Flesch-Kincaid and the Lexile measure were converted to grade bands.

Figure 1: Updated Text Complexity Grade Bands and Associated Ranges from Multiple Measures⁷

Common Core Band	ATOS	Degrees of Reading Power [®]	Flesch-Kincaid ^s	The Lexile Framework [®]	Reading Maturity	SourceRater
2 nd – 3 rd	2.75 – 5.14	42 – 54	1.98 – 5.34	420 – 820	3.53 – 6.13	0.05 – 2.48
4 th – 5 th	4.97 – 7.03	52 – 60	4.51 – 7.73	740 – 1010	5.42 – 7.92	0.84 – 5.75
6 th – 8 th	7.00 – 9.98	57 – 67	6.51 – 10.34	925 – 1185	7.04 – 9.57	4.11 – 10.66
9 th – 10 th	9.67 – 12.01	62 – 72	8.32 – 12.12	1050 – 1335	8.41 – 10.81	9.02 – 13.93
11 th – CCR	11.20 – 14.10	67 – 74	10.34 – 14.2	1185 – 1385	9.57 – 12.00	12.30 – 14.50

Quantitative data shows that placement between grades 4 and 8 would be appropriate.

² For higher stakes tests, it is recommended that two corresponding text complexity measures be used to place a text in a grade band. When two measures are used, both placing the text in the same **band**, the results provide additional assurance that the text selected is appropriate for the band.

To find the **grade-level** of the text within the designated grade band, engage in a systematic analysis of the characteristics of the text. The characteristics that should be analyzed during a qualitative analysis can be found in Appendix A of the CCSS. (www.corestandards.org)

Qualitative Analysis of Article 1: “Basic Archaeology: What’s a Dig?”

Category	Notes and comments on text, support for placement in this band	Where to place within the band?				
		Too low	early to mid 4	mid- 4 to low 5	Mid to high 5	NOT suited to band
Structure: (both story structure or form of piece)	The structure of this text is question/answer, but the author also uses cause and effect throughout. While the article is explaining what a dig is, it also explains why archaeologists want to dig for objects, why they need to dig for objects, why special tools are used, what things are typically found on digs, etc.					
Language Clarity and Conventions (including vocabulary load)	The language used in this excerpt is mostly literal, conversational, and conventional, which helps make the text accessible for students. The sentences are straightforward and vary between simple and complex. The vocabulary should mostly be familiar to students, and words that are unfamiliar are explained either directly or through use of context.					
Knowledge Demands (life, content, cultural/literary)	No prior knowledge is needed to understand this text, as the author develops each point through sufficient use of evidence.					
Levels of Meaning (chiefly literary)/Purpose (chiefly informational)	Although the title implies that the main purpose is simply to explain a dig, the author actually wants students to understand who archaeologists are, what they are searching for, how they conduct those searches, and the benefits of doing so.					
Overall placement Grade 4	Justification: Although the structure is somewhat complex and there are multiple purposes for the article, the language and conventions and lack of knowledge demands make the text appropriate for the high end of 4th grade.					

Qualitative Analysis of Article 2: “Basic Archaeology: What’s a Midden?”

Category	Notes and comments on text, support for placement in this band	Where to place within the band?				
		Too low	early to mid 4	mid- 4 to low 5	Mid to high 5	NOT suited to band
Structure: (both story structure or form of piece)	The main structure of this text is question/answer, but the author also uses cause and effect throughout. In answering the question presented in the title, the text explains what is found in a midden and why it is important.					
Language Clarity and Conventions (including vocabulary load)	The language used in this excerpt is mostly literal, conversational, and conventional, which helps make the text accessible for students. The sentences are straightforward and vary between simple and complex. The vocabulary should mostly be familiar to students, and words that are unfamiliar are explained either directly or through use of context.					
Knowledge Demands (life, content, cultural/literary)	No prior knowledge is needed to understand this text, as the author develops each point through sufficient use of evidence.					
Levels of Meaning (chiefly literary)/ Purpose (chiefly informational)	Although the title implies that the main purpose is simply to explain what a midden is, the author actually wants students to understand how archaeologists use the contents of a midden to learn about cultures that lived in the past.					
Overall placement Grade 4	Justification: Although the structure is somewhat complex and the purposes for the article are multiple, the language and conventions and lack of knowledge demands make the text appropriate for the high end of 4th grade.					

Question Annotations & Correct Answer and Distractor Rationales

Question Number	Correct Answer(s)	Standards	Rationales for Answer Options
1	B, C	RI.4.4, RI.4.1	<p>A. Although “wind” is what moves debris around, it doesn’t help the reader understand what debris means.</p> <p>B. This is a correct answer. The text reads, “...blowing fresh dirt and trash all over the world. This airborne debris...,” so the word “dirt” helps explain one component of debris.</p> <p>C. This is a correct answer. The text reads, “...blowing fresh dirt and trash all over the world. This airborne debris...,” so the word “trash” helps explain one component of debris.</p> <p>D. Although “ground” explains where the debris is found, it does not help the reader understand what debris means.</p> <p>E. Although “layers” indicates how the debris falls to the ground, it does not help the reader understand what debris means.</p> <p>F. Although “surface” explains where the debris is sometimes found, it does not help the reader understand what debris means.</p>
2	A	RI.4.3, RI.4.8, RI.4.1	<p>A. This is the correct answer. The text reads, “So, archaeologists use their pickaxes and their drills and their brushes to find and piece together clues to what happened...” so the focus of this paragraph is the tools used by archaeologists.</p> <p>B. This paragraph does not indicate the length of digs, but rather focuses on the variety of tools archaeologists use to perform them.</p> <p>C. Although this paragraph mentions finding clues, it is about how archaeologists are able to find the clues, not how many there are.</p> <p>D. Although this paragraph mentions that archaeologists learn about the past, it focuses on the tools they use to do so, not the specific information they gain.</p>

3	Paragraphs 4 and 5	RI.4.8, RI.4.1	<p>Paragraph 4 supports the statement that digs can reveal specific information about people who lived in the past by explaining what archaeologists can learn about a place based on agricultural remnants found there.</p> <p>Paragraph 5 supports the statement that digs can reveal specific information about people who lived in the past by explaining what archaeologists can learn about people based on clothing remnants.</p>
4 Part A	B	RI.4.3; RI.4.2; RI.4.1	<p>A. .Archaeologists study people and the general conditions of the area in which they lived, not the reasons an area became full of debris.</p> <p>B. This is the correct answer. To learn more about people from the past, archaeologists have to also learn about the general conditions of the area in which they lived.</p> <p>C. Although archaeologists may learn about past governments based on studying some of the artifacts found, that is not an area of study for them.</p> <p>D. Although people may have worked together in the past, that is not an area of study for archaeologists.</p>
4 Part B	C		<p>A. The purpose of the sentence is to tell how objects become buried, not to explain what archaeologists study.</p> <p>B. The purpose of this sentence is to clarify the relationship between more objects being found resulting in more learning about people in the past.</p> <p>C. This is the correct answer. This sentence explains that archaeologists study the general conditions of an area so they can learn what people grew for food or what grew naturally in an area.</p> <p>D. The sentence provides support for archaeologists studying people, but not the general conditions of the area in which they lived.</p>

<p style="text-align: center;">5 Part A</p>	<p style="text-align: center;">D</p>	<p style="text-align: center;">RI.4.2, RI.4.1</p>	<p>A. This statement only explains one reason that trash is a valuable clue for archaeologists, not what information archaeologists can gain from trash. Thus, it is an incomplete statement of the main idea.</p> <p>B. This text does not compare the importance of archaeology now to that of other times. Instead, the text explains how archaeologists learn about the past.</p> <p>C. Although archaeology may be a challenging job, that concept is not the main idea of the text.</p> <p>D. This is the correct answer. This text focuses on how trash can provide archaeologists with important information about the past.</p>
<p style="text-align: center;">5 Part B</p>	<p style="text-align: center;">A</p>		<p>A. This is a correct answer. This quotation explains two pieces of information that archaeologists can learn about a civilization based on its trash.</p> <p>B. Although this quotation mentions garbage, it explains the effect of time rather than what information archaeologists learn from trash.</p> <p>C. This quotation explains why trash may be the only information available to archaeologists, rather than what information they learn from it.</p> <p>D. This quotation explains why valuable objects were discarded by conquerors, but does not explain why archaeologists find them useful.</p>
<p style="text-align: center;">6</p>	<p style="text-align: center;">D</p>	<p style="text-align: center;">RI.4.8, RI.4.1</p>	<p>A. Although it may be difficult to learn about people from the past, this sentence is not meant to provide evidence of that fact.</p> <p>B. This option does not support the sentence from Article 2 because it actually contradicts a truth in the text. Objects that were worthless in the past may actually be very valuable in the present, both monetarily and for the information they provide about past cultures.</p> <p>C. This option does not support the sentence from Article 2 because it suggests these objects were highly valued in the past while the sentence states that these objects are only valuable to archaeologists now.</p> <p>D. This is the correct answer. This option, specifically “especially if it was also trash to the invaders”, explains why archaeologists may still find discarded objects now.</p>

<p>7</p>	<p>Both articles: An archaeologist’s job is to learn about what things were like in the past.</p> <p>Article 1: Archaeologists dig in the ground because old objects are found underground.</p> <p>Article 2: Archaeologists learn a lot about the past by digging in buried trash.</p>	<p>RI.4.9, RI.4.1</p>	<p><i>Both Articles: An archaeologist’s job is to learn about what things were like in the past.</i></p> <ul style="list-style-type: none"> • Text 1 states, “This is a project designed to find out more about a specific area and what it was like many, many years ago.” This quotation explains the role archaeologists play in learning about the past. • Text 2 states, “It is left to archaeologists to find these things and piece together the life stories of people long since conquered.” This quotation also explains the role archaeologists play in learning about the past. <p><i>Article 1: Archaeologists dig in the ground because old objects are found underground.</i></p> <ul style="list-style-type: none"> • Text 1 states, “Whatever they’re looking for, it usually involves digging.” This quotation explains that archaeologists must typically look underground for clues to past civilizations. <p><i>Article 2: Archaeologists learn a lot about the past by digging in buried trash.</i></p> <ul style="list-style-type: none"> • Text 2 states, “It might sound a little silly, but archaeologists can find out a lot about people by looking through their trash.” This quotation explains the purpose for archaeologists’ interest in trash.
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<p style="text-align: center;">8</p> <p style="text-align: center;">Optional Writing Prompt</p>		<p style="text-align: center;">RI.4.9, RI.4.3, RI.4.1, W.4.2 (expository), W.4.3 (narrative description), W.4.9</p>	<p><i>A good student response will include all or most of the following points from the articles:</i></p> <ul style="list-style-type: none"> • The first thing to do would be to find a place to dig (inference from article 1). • This place should be where people might have lived before it was buried by debris (article 1). <ul style="list-style-type: none"> ○ One place to look would be where a conquered people probably lived and threw away trash (article 2). ○ Another place to look would be where a conquering people threw away things (article 2). • The next thing to do is to collect the right tools, including pickaxes, drills, and brushes (article 1). • The next step is to start digging. <ul style="list-style-type: none"> ○ The pickaxes and drills would likely be used for hard ground, and the brushes for brushing off small pieces of dirt from what is found (inferences from article 1). • The digging has to be carefully done so that every small object is found (inference from both articles). • When a lot of objects have been collected from the dig, the next step is to try to figure out what the objects mean (inference from both articles). <ul style="list-style-type: none"> ○ For example, if pieces of clothing are found, we learn about what people wore (both articles). ○ If there's a lot of something that people threw away, maybe they had a lot of it (article 2). ○ If seeds are found, we learn what crops people grew (article 1). • The last step is to “piece together the life stories” of the people (article 2) and thus “discover the past” (article 1).
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Additional Resources For Assessment and CCSS Implementation

Shift 1 – Complexity: *Regular practice with complex text and its academic language*

- See Appendix B for examples of informational and literary complex texts
http://www.corestandards.org/assets/Appendix_B.pdf
- See the Text Complexity Collection on www.achievethecore.org

Shift 2 – Evidence: *Reading, writing, and speaking grounded in evidence from text, both literary and informational*

- See Close Reading Exemplars for ways to engage students in close reading on
<http://www.achievethecore.org/steal-these-tools/close-reading-exemplars>
- See the Basal Alignment Project for examples of text-dependent questions
<http://www.achievethecore.org/basal-alignment-project>

Shift 3 – Knowledge: *Building knowledge through content-rich nonfiction*

- See Appendix B for examples of informational and literary complex texts
http://www.corestandards.org/assets/Appendix_B.pdf