# Grade 4 Informational/Literary Mini-Assessment

## "Tree Rings"

This grade 4 mini-assessment is based on an informational text about tree rings and a poem on the same topic. These texts are considered 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 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 miniassessment there are seven selected-response questions and two items that replicate how technology may be used on assessments, but in paper and pencil format, that address the Reading Standards listed below and one constructed-response question that addresses the Reading, Writing, and Language Standards.

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

Note for teachers of English Language Learners (ELLs): This assessment is designed to measure students' ability to read and write in English. Therefore, educators will not see the level of scaffolding typically used in instructional materials to support ELLs—these would interfere with the ability to understand their mastery of these skills. If ELL students are receiving instruction in grade-level ELA content, they should be given access to unaltered practice assessment items to gauge their progress. Passages and items should not be modified; however, additional information about accommodations you may consider when administering this assessment to ELLs is available in the teacher section of this resource.

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.4.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
RL.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

#### The questions align to the following standards:

RL.4.2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.
RL.4.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant
	characters found in mythology (e.g., Herculean).
RL.4.5	Compare and contrast the point of view from which different stories are narrated, including the difference between
	first- and third-person narrations.
W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
W.4.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose,
	and audience.
W.4.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
L.4.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
L.4.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when
	writing.
L.4.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.

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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 – "Tree Rings"

Today you will read a passage and a poem about tree rings. 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, but you may return to Part A if you wish.

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 passage and poem and answer the questions. I encourage you to write notes in the margin as you read.



IMAGE 1: A road through trees

Image credit: Flickr user Bernard Spragg. NZ

## What Can Trees Tell Us About Climate Change?

## Quite a lot, actually!

- But to understand what the trees tell us, we first have to understand the difference between weather and climate.
- 2) Weather is a specific event—like a rain storm or hot day—that happens over a short period of time. Weather can be tracked within hours or days. Climate is the average weather conditions in a place over a long period of time (30 years or more).

- 3) Scientists at the National Weather Service have been keeping track of weather in the United States since 1891. But trees can keep a much longer record of Earth's climate. In fact, trees can live for hundreds—and sometimes even thousands—of years!
- 4) One way that scientists use trees to learn about past climate is by studying a tree's rings. If you've ever seen a tree stump, you probably noticed that the top of the stump had a series of rings. It looks a bit like a bullseye.



IMAGE 2: The light and dark rings of a tree. Image credit: Flickr Creative Commons user Amanda Tromley

5) These rings can tell us how old the tree is and what the weather was like during each year of the tree's life. The light-colored rings represent wood that grew in the spring and early summer, while the dark rings represent wood that grew in the late summer and fall. One light ring plus one dark ring equals one year of the tree's life.



IMAGE 3: The color and width of tree rings can provide snapshots of past climate conditions.

- 6) Because trees are sensitive to local climate conditions, such as rain and temperature, they give scientists some information about that area's local climate in the past. For example, tree rings usually grow wider in warm, wet years and they are thinner in years when it is cold and dry. If the tree has experienced stressful conditions, such as a drought, the tree might hardly grow at all in those years.
- 7) Scientists can compare modern trees with local measurements of temperature and precipitation from the nearest weather station. However, very old trees can offer clues about what the climate was like long before measurements were recorded.



IMAGE 4: This is said to be the Methuselah Tree, one of the oldest living trees in the world. Methuselah, a bristlecone pine tree in White Mountain, California is thought to be almost 5,000 years old. Image credit: Oke/Wikimedia Commons

8) In most places, daily weather records have only been kept for the past 100 to 150 years. So, to learn about the climate hundreds to thousands of years ago, scientists need to use other sources, such as trees, corals, and ice cores (layers of ice drilled out of a glacier).

https://climatekids.nasa.gov/tree-rings/ Courtesy NASA/JPL-Caltech

### **RINGS NOT LETTERS**

## by Juanita Havill

- 1) A tree writes the story of its life
- 2) In rings not letters.
- 3) One tiny ring at the center:
- 4) "Here is where I began."
- 5) Next year a new ring:
- 6) "Look how much I grew."
- 7) Wide bands between rings:
- 8) "Hooray for rain and sun."
- 9) Narrow bands:
- 10) "It's hot and dry and I'm so thirsty."
- 11) Fires, insects, the weight
- 12) Of a fallen tree against the trunk,
- 13) All written in rings, not letters,
- 14) the life story of a tree.

Poem copyright ©2014 by Juanita Havill from *The Poetry of Science: The Poetry Friday Anthology for Science for Kids* compiled by Sylvia Vardell and Janet Wong

#### QUESTIONS:

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

#### Part A: In the article, what point is the author making in paragraphs 1 - 3?

- A. Scientists can use trees to study climate change because trees live for long periods of time.
- B. By studying trees, we can learn about the relationships between weather and climate.
- C. Scientists have discovered that trees impact the climate and should be closely studied.
- D. By studying trees, we can learn how people from long ago lived during weather events and in different climates.

#### Part B: Which sentence from the article supports the author's point above?

- A. "If you've ever seen a tree stump, you probably noticed that the top of the stump had a series of rings."
- B. "If the tree has experienced stressful conditions, such as a drought, the tree might hardly grow at all in those years."
- C. "Scientists can compare modern trees with local measurements of temperature and precipitation from the nearest weather station."
- D. "However, very old trees can offer clues about what the climate was like long before measurements were recorded."

#### 2. How does Image 2 most contribute to the reader's understanding of the article?

- A. It shows what a tree might look like that has lived for "thousands" of years.
- B. It clarifies the meaning of the term "stump."
- C. It shows the contrasts between "rings" that scientists are studying.
- D. It clarifies what might be considered a "stressful condition" for a tree.

3. Based on information in paragraphs 5 and 6 of the article, draw a line from each tree ring sample below to the description it best matches.

EXAMPLE OF TREE RING SAMPLE

DESCRIPTION OF TREE



This tree experienced dry weather for a few seasons and then wetter weather later.

This tree experienced consistently wet weather patterns.





This tree experienced wet conditions at first but then experienced drier weather later.

#### 4. What information is revealed by Image 3 that is <u>not</u> discussed in the article?

- A. Trees can also provide information about natural disasters in the area.
- B. Trees rings can show how old a tree was.
- C. Tree rings can show how tall a tree was.
- D. Trees can also provide information about temperatures in the area.

#### 5. This item has two parts. First answer Part A. Then answer Part B.

#### Part A: What does the word sensitive mean as it is used in paragraph 6 of the article?

- A. easily pained or annoyed
- B. able to learn things through senses
- C. able to sense how others are feeling
- D. easily affected or influenced

# Part B: Which phrase from paragraph 6 helps determine the meaning of the word <u>sensitive</u> as

#### defined in Part A?

- A. "... local climate conditions ..."
- B. "... such as rain and temperature...."
- C. "... give scientists some information...."
- D. "... tree rings usually grow wider...."
- 6. What are the <u>two</u> most likely reasons the poem begins and ends with the references to the life story of a tree?
  - A. to suggest that trees have a long life
  - B. to highlight the central idea of the poem
  - C. to hint that the entire life of the tree is included in the poem
  - D. to reinforce the image of the rings of a tree representing the passage of time
  - E. to imply that all living things have a story to tell
  - F. to establish and then build on the rhythm of the poem

#### 7. How do lines 4, 6, 8, and 10 most contribute to the poem?

- A. They allow the reader to see the tree as a living thing.
- B. They work together to develop the setting where the tree grows.
- C. They allow the reader to understand exactly how long the tree lived.
- D. They work together to develop the conflicts the tree encounters.

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

#### Part A: How are the points of view of the article and the poem different?

- A. The author of the article writes about tree rings in an informative way while the poet tells a story about a newly planted tree.
- B. The author of the article writes a descriptive explanation of the life cycle of a tree while the poet writes an informative explanation of tree rings.
- C. The author of the article writes an informative explanation of tree rings while the poet writes a creative explanation of tree rings.
- D. The author of the article writes a creative story about the climate and weather while the poet writes a descriptive explanation of tree growth.

# Part B: Choose one detail from the article and one sentence from the poem that <u>best</u> support the answer to Part A.

Article	Poem
"Weather can be tracked within hours or days."	"Fires, insects, the weight"
"One light ring plus one dark ring equals one year of the tree's life."	"A tree writes the story of its life"
"So, to learn about the climate hundreds to thousands of years ago, scientists need to use other sources, such as trees, corals, and ice cores (layers of ice drilled out of a glacier)."	"Hooray for rain and sun.""
"In fact, trees can live for hundreds— and sometimes even thousands—of years!"	"Look how much I grew."

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

#### Part A: Read lines 11, 12, and 13 from the poem:

Fires, insects, the weight

Of a fallen tree against the trunk,

All written in rings, not letters

#### Why does the poet include these lines?

- A. to reinforce the idea that a tree's rings tell a story
- B. to compare the tree to an author to make the poem easier to understand
- C. to explain the events that happen to trees in a scientific manner
- D. to describe how the rings of a tree are created through natural disasters

## Part B: Which sentence from the article has the same purpose as the lines from the poem

#### in Part A?

- A. "In fact, trees can live for hundreds—and sometimes even thousands—of years!" (paragraph 3)
- B. "It looks a bit like a bullseye." (paragraph 4)
- C. "One light ring plus one dark ring equals one year of the tree's life." (paragraph 5)
- D. "If the tree has experienced stressful conditions, such as a drought, the tree might hardly grow at all in those years." (paragraph 6)

10. (Optional) Using information from the article and the poem, explain how each author supports the idea that tree rings are useful in gathering information about trees. Be sure to use details from both the article and the poem to support your answer. Use the lines on the next page for your response.

Your response will be scored on how well you:

- Demonstrate your understanding of the ideas of the text
- Use evidence from the text to help develop and support your ideas
- Organize your response in a logical manner
- Demonstrate an appropriate writing style through the use of precise word choice and varied sentences
- Use standard conventions for writing


#### Information for Teachers: Quantitative and Qualitative Analyses of the Text

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

- Place a text or excerpt within a grade band based on at least one<sup>1</sup> 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 at a grade level based on a qualitative analysis.

	· · ·	
"What Can Trees Tell Us	Quantitative Measure #1	Quantitative Measure #2
About Climate Change?"	Flesch-Kinkaid: 7.7	Lexile: 920

#### **Quantitative Analysis**

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 (<u>www.corestandards.org/resources</u>) and determine the **grade band** of the text.

Figure 1 reproduces the conversion table from the Supplement to Appendix A, showing how the initial results from the Flesch-Kinkaid and Reading Maturity measures were converted to grade bands.

Common Core Band	ATOS	Degrees of Reading Power®	Flesch- Kincaid <sup>®</sup>	The Lexile Framework®	Reading Maturity	SourceRater
2 <sup>nd</sup> – 3rd	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 <sup>th</sup> – 8 <sup>th</sup>	7.00 - 9.98	57 – 67	6.51 - 10.34	925 - 1185	7.04 - 9.57	4.11 - 10.66
9 <sup>th</sup> - 10 <sup>th</sup>	9.67 - 12.01	62 - 72	8.32 - 12.12	1050 - 1335	8.41 - 10.81	9.02 - 13.93
11 <sup>th</sup> – CCR	11.20 - 14.10	67 - 74	10.34 - 14.2	1185 - 1385	9.57 - 12.00	12.30 - 14.50

#### Figure 1: Updated Text Complexity Grade Bands and Associated Ranges from Multiple Measures<sup>7</sup>

Quantitative data shows that placement in grade 4 or 5 would be appropriate. 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)

<sup>&</sup>lt;sup>1</sup> 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.

#### Qualitative Analysis of "What Can Trees Tell Us About Climate Change?"

Category	Notes and comments on text, support for placement in this band	Where to place within the band?					
		Too Iow	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 overall structure of the text is main idea/supporting details, as the text is structured to provide a description of how tree rings can aid scientists in explaining climate change. However, there are other structures within the text, including problem/solution (e.g., paragraph 3 explains how trees can inform scientists about climate change further back than records have been kept) as well as a cause and effect structure (e.g., paragraph 6 explains how the amount of rainfall effects the width of tree rings). The multiple structures within the text may necessitate students to read the text multiple times or to use other strategies to comprehend the text.	•		1			
Language Clarity and Conventions (including vocabulary load)	Sentence structure is mixed, with some simple and some complex sentences. Several academic and domain-specific vocabulary words should be familiar to students (e.g., climate, temperature, precipitation). The language and conventions are appropriate for this grade level.	•		1			
Knowledge Demands (life, content, cultural/literary)	Students who do not have some basic understanding of weather and climate (temperature, rainfall, etc.) may be challenged by this text. Furthermore, the concepts of tree rings and the idea of using tree rings to measure growth and age of trees and climate may be new to students. The text describes each concept, building students' content knowledge.	•		Ť		<b>→</b>	
Levels of Meaning (chiefly literary)/ Purpose (chiefly informational)	The central message (trees and tree rings can teach us about climate change) and purpose (explanation of how tree rings provide information to scientists) are explicitly stated. Additionally, there is strong use of evidence, including examples and comparisons. The illustrations should assist students in understanding one of the basic concepts described in the text.	•	Ť				
Overall Placement: Grade 4	The new concepts covered by the text (use of tree rings to track climate change), as well as the multiple purposes, make this text complex. This text is most suited for use at the middle to end of grade 4.	•		Ť		<b></b>	

#### Qualitative Analysis of "Rings Not Letters"

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 poem is structured as a narrative, using personification throughout, as the poet uses the tree as an author telling its own story. The poem begins by stating that "A tree writes the story of its life" and then proceeds to do so through the lines of the poem. This structure may require multiple readings for students to understand the dual purposes.	•		<b>↑</b>		<b>&gt;</b>	
Language Clarity and Conventions (including vocabulary load)	The vocabulary is grade-level appropriate and accessible to students. Students must understand the author uses quotations as part of the personification throughout as the "voice" of the tree and how this differs from the explanation of tree rings. Overall, the language is accessible for the grade level.	•					
Knowledge Demands (life, content, cultural/literary)	Students will need some basic understanding of trees. While the poem does provide background knowledge about what tree rings represent, it is done in a creative way that may not be clear to students. Paired with another text that provides this information would benefit students. However, the knowledge demands are not great.	•	1			<b>→</b>	
Levels of Meaning (chiefly literary)/ Purpose (chiefly informational)	The central theme (trees tell their own stories through tree rings) is explicitly stated ("A tree writes the story of its life, In rings not letters"). The poem attempts to personify this idea as well as provide readers with the content knowledge about tree rings. This approach may be complex for some students.	•	Ť			<b></b>	
Overall Placement: Grade 4	The new concepts covered by the text (tree rings tell a tree's story), as well as the structure of the text (poetry), make this text moderately complex. This text is most suited for use at the beginning to middle of grade 4.	•	<b>↑</b>			<b></b>	

# **Question Annotations and Correct Answer and Distractor Rationales**

Question Number	Correct Answer(s)	Standards	Rationales for Answer Options
1 Part A	A	RI.4.8, RI.4.1	<ul> <li>A. This is the correct answer. These paragraphs discuss how scientists only have written records back to a certain point, while trees can provide information further back in time.</li> <li>B. Although these paragraphs explain how trees provide information about climate and they differentiate between weather and climate, they do not explain how scientists can learn about the relationship between weather and climate</li> <li>C. Although the text mentions trees and climate, it does not explain how trees impact climate.</li> <li>D. Although the article does explain how scientists learn about weather, climate, and weather events, it does not discuss how weather and climate impacted people long ago.</li> </ul>
1 Part B	D		<ul> <li>A. Although this sentence mentions tree rings, it does not indicate how this helps scientists learn about the climate in the past.</li> <li>B. Although this sentence discusses the impact of climate on tree rings, it does not directly support the idea that scientists use this information to study the climate.</li> <li>C. Although this statement explains how scientists can use trees for information, it mentions the present while the answer to Part A is about climate over time.</li> <li>D. This is the correct answer. This sentence supports the idea that scientists use trees to study climate over a long period of time</li> </ul>

2	С	RI.4.7, RI.4.1	<ul> <li>A. Although this image includes tree rings that indicate the age of a tree, the intent of this image is not to help the reader understand the tree's age but rather to show the contrast of the ring colors.</li> <li>B. Although the image does imply a tree has been cut and a tree stump is all that is left, it does not show the stump and therefore isn't intended to define the word "stump."</li> <li>C. This is the correct answer. The intent of the image is to show the lighter and darker rings in the tree, so readers can understand what scientists are looking at as they study trees. The text that accompanies the image supports this claim.</li> <li>D. Although scientists may use the information shown in the image to determine tree conditions, the image is showing wet and dry years represented in the ring, not stress.</li> </ul>
3	Image 1: Description 2 Image 2: Description 1 Image 3: Description 3	RI.4.3, RI.4.1	<ul> <li>Image 1 matches description 2 because the rings' size and width remain constant, indicating temperatures and rainfall were consistent.</li> <li>Image 2 matches description 1 because the narrow rings at the center indicate drier seasons with the larger outside rings indicating wetter seasons.</li> <li>Image 3 matches description 3 because the wide inner rings indicate wetter weather while the narrower outer rings indicate drier weather.</li> </ul>
4	A	RI.4.7, RI.4.1	<ul> <li>A. This is the correct answer. The image shows a scar from a forest fire, thus exhibiting how tree rings can provide information about natural disasters. This information is not included in the text.</li> <li>B. Although tree rings do inform scientists about a tree's age, as discussed in the article, that information is not included in this image.</li> <li>C. Although the image includes information about tree growth, it does not specifically detail the height of a tree nor is that idea discussed in the article.</li> <li>D. Although the image does include information about how tree rings can provide information about temperature, this information is also provided in the article.</li> </ul>

5 Part A	D	- RI.4.4, RI.4.1	<ul> <li>A. Although this is an accurate definition of "sensitive," it is not the definition as the word is used in the sentence.</li> <li>B. Although students may identify the root word of "sense" to mean the five senses, this is not how the word "sensitive" is used in this sentence.</li> <li>C. Although this is an accurate definition of "sensitive," it is not the definition as the word is used in the sentence.</li> <li>D. This is the correct answer. The word "sensitive" is used to describe how the trees are affected by the local climate.</li> </ul>
5 Part B	В		<ul> <li>A. Although the trees are "sensitive" to the local climate, this does not directly help define the word.</li> <li>B. This is the correct answer. This phrase explains what directly affects the trees, explaining what they are "sensitive" to.</li> <li>C. Although the trees do give scientists information, this phrase does not help define "sensitive."</li> <li>D. Although this phrase explains what happens to trees due to the impact of weather, it does not describe the term "sensitive." It describes what happens to trees because they are "sensitive."</li> </ul>
6	B, D	RL.4.5, RL.4.2, RL.4.1	<ul> <li>A. Although the poem does detail the life of a tree, the purpose of these two lines is not to discuss the length of a tree's life.</li> <li>B. This is a correct answer. A central theme of the poem is that tree rings tell the story of the tree, and these two lines support this theme by stating that the tree has a life story.</li> <li>C. Although the poem details some aspects of the life of a tree, it does not necessarily tell the story of a tree's entire life; therefore, this statement is false.</li> <li>D. This is a correct answer. The poem implies that the tree rings are telling the life story of a tree, and thus, they represent the passage of time.</li> <li>E. Although the poem does imply that trees have a story to tell, it does not mention nor imply that the poem is about all living things.</li> <li>F. Although the beginning and ending lines do have creative purposes, it is not to set or build rhythm, as this is done through the alternating of quotations and explanation throughout the body of the poem.</li> </ul>

7	A	RL.4.4, RL.4.1	<ul> <li>A. This is the correct answer. By using dialogue, the author gives the tree the human trait of speech, so the reader can see the tree as a living thing.</li> <li>B. Although each of the lines may provide details about the setting, the purpose is not to develop the setting.</li> <li>C. Although the lines do provide details about the tree's life that may be found in tree rings, these lines are not intended to explain how long a tree lives.</li> <li>D. Although the lines do explain some of the things that impact the life of a tree—for example, climate changes—they do not develop any conflicts the tree may have, as found in line 11.</li> </ul>
8 Part A	C	RI.4.6, RI.4.1, RL.4.1	<ul> <li>A. Although the author of the article does write about tree rings in an informative way, the poet is not telling the story about a newly planted tree; she is using personification to explain the life of a tree.</li> <li>B. Although the author of the article does use description in some sections of the article, his purpose is not to explain the life cycle of the tree but to explain how scientists use tree rings to study climate change. Also, the poet does use some informative structure, but the overall structure is descriptive.</li> <li>C. This is the correct answer. The author of the article does inform the reader about tree rings while the poet, also explaining tree rings, does so in a descriptive manner.</li> <li>D. Although the author of the article does discuss the climate and weather, it is done in an informative structure. The poet uses a descriptive tone but is doing so to explain how tree rings tell the story of a tree's life.</li> </ul>

			Article		Poem	
			"Weather can be tracked within hours or days." "One light ring plus	This sentence does not support the author's purpose of explaining how tree rings help scientists study climate change. This is the correct	"Fires, insects, the weight" "A tree writes	Although this detail does support the author's purpose, it is more informative than descriptive. Although this is a
			one dark ring equals one year of the tree's life."	answer. This detail supports the author's purpose of explaining how tree rings are used by scientists in an informative way.	the story of its life"	statement of the theme of the poem, restating the author's purpose, but does not do so in a creative way.
8 Part B	See right column		"So, to learn about the climate hundreds to thousands of years ago, scientists need to use other sources, such as trees, corals, and ice cores (layers of ice drilled out of a glacier)."	Although this sentence begins to explain how trees may be a source of information for scientists, it does not support the purpose of discussing tree rings specifically.	"'Hooray for rain and sun.'"	Although this is a creative detail from the passage, it is not directly related to the explanation of tree rings.
			"In fact, trees can live for hundreds— and sometimes even thousands—of years!"	Although this is a detail about the life of a tree, it does not support the purpose.	"'Look how much I grew.'"	This is the correct answer. This sentence is creative and is an explanation of tree rings by the author.
9 Part A	A	RL.4.4, RL.4.1	rings can expla telling its "stor B. Although the p make the poen C. Although the p she does not de D. Although the p	in major events th y." oet does compare n easier to unders oet is explaining t o so in a scientific oet implies that th	at impact the tre the tree to an a tand. he events that im manner, but in a ne impact of natu	tes to explain how tree ee throughout its life, thus uthor, her reason is not to pact the tree's growth, creative manner. Iral disasters on trees can y natural disasters.

9 Part B	D		<ul> <li>A. Although this sentence provides details about the life of a tree, it does not explain how the tree rings tell about the experiences of trees.</li> <li>B. Although this sentence explains what tree rings look like, it does not explain how the tree rings tell a story.</li> <li>C. Although this sentence provides details about tree rings and how they explain the growth of trees, it does not explain how they tell the story, like when impacted by natural disasters, as explained in the key in Part A.</li> <li>D. This is the correct answer. This sentence explains how natural disasters can impact trees and how tree rings can inform scientists about these disasters.</li> </ul>
10 Optional Writing Prompt	See right column	W.4.2, W.4.4, W.4.9, RI.4.3, RI.4.2, RI.4.1, L.4.1, L.4.2, L.4.3	<ul> <li>A good student response will include:</li> <li>Details from the article that support the idea that tree rings are useful in gathering information about trees, such as:</li> <li>"These rings can tell us how old the tree is, and what the weather was like during each year of the tree's life."</li> <li>"For example, tree rings usually grow wider in warm, wet years and they are thinner in years when it is cold and dry. If the tree has experienced stressful conditions, such as a drought, the tree might hardly grow at all in those years."</li> <li>Details from the poem that support the idea that tree rings are useful in gathering information about trees, such as:</li> <li>"Narrow bands: <ul> <li>"It's hot and dry and I'm so thirsty."</li> </ul> </li> <li>"Fires, insects, the weight Of a fallen tree against the trunk,"</li> </ul>

#### Using the Mini-Assessments with English Language Learners (ELLs)

#### **Mini-Assessment Design and English Language Learners**

Each mini-assessment is designed using the best practices of test design. English Language Learners will benefit from the opportunity to independently practice answering questions about grade-level complex texts.

Prior to delivering the mini-assessment, teachers should read through each item. If there is language in the question stems specific to the standards (e.g., plot, theme, point of view), make sure that students have been introduced to these concepts prior to taking the assessment. Teachers should not pre-teach specific vocabulary words tested in the assessment (e.g., words students are asked to define) and should only pre-teach language that would impede students from understanding what the question is asking.

The mini-assessments attend to the needs of all learners, and ELLs specifically, by including texts that:

- Are brief and engaging: Texts vary in length, but no individual text is more than three pages long.
- *Embed student-friendly definitions:* Footnotes are included for technical terms or words that are above grade level when those words are not surrounded by context that would help students determine meaning.

Informational text sets, such as those included in the mini-assessment, specifically attend to the needs of ELLs by:

- Building student knowledge: Mini-assessments often include multiple texts or stimuli on the same topic:
  - For sets with two texts or stimuli, the first text is generally broader, providing a foundation in the content and introducing key vocabulary, and the second text provides more detail or contrast on the same topic. This allows ELLs to dig into the features of the passage being assessed rather than being inundated with dissimilar content and vocabulary.
  - For sets with more than two texts or stimuli, there is an "anchor" text that provides introductory information on the topic.

• Containing ideas that lend themselves to discussion from a variety of perspectives: Often these pairs or sets of texts present multiple perspectives on the same topic.

The mini-assessments attend to the needs of all learners, and ELLs specifically, by including questions that:

- Feature a variety of academic words:
  - Each mini-assessment contains at least one vocabulary item. Items assessing vocabulary test one of the following:
    - The meaning of Tier 2 academic words in context.
    - The meaning of a figurative word/phrase in context.
    - The impact of word choice on meaning and/or tone.
  - o MOST vocabulary items test Tier 2 words.
  - o All tested words are chosen because:
    - They are central to the meaning of the text.
    - They are surrounded by sufficient context to allow students to determine meaning.
- *Highlight "juicy" sentences that feature grade-appropriate complex structures, vocabulary, and language features:* Most miniassessments include at least one item assessing Reading for Literature or Reading: Informational text standard 5. These items point students to analyze the structure of the text. While standard 5 items specifically focus on the structure of the text, other items require the analysis of language features, vocabulary, and relationships between ideas, all of which build student understanding of texts.
- *Provide graphic organizers to help students capture and reflect on new knowledge:* Most mini-assessments include at least one item mimicking a "technology enhanced item." These items include things like tables and charts.
- Provide writing activities that allow students to use new vocabulary and demonstrate knowledge of new concepts: Most miniassessments include an optional writing prompt that allows students to write about the text(s).

#### **Administration Guidelines for ELLs**

When assessing ELL students, appropriate accommodations may be considered. Modifications to the assessment itself should not be made. According to the Accommodations Manual: How to Select, Administer, and Evaluate Use of Accommodations for Instruction and Assessment of English Language Learners, First Edition:

- "Modifications refer to practices or materials that change, lower, or reduce state-required learning expectations. Modifications may change the underlying construct of an assessment."
- "Accommodations are accessibility supports [that] do not reduce learning expectations. They meet specific needs of students in instruction and assessment and enable educators to know that measures of a student's work produce valid results."

Teachers **may** choose to make accommodations that meet the unique needs of ELLs. Prior to delivering any practice assessment, especially if the mini-assessment is to be used in a more formal setting (e.g., as part of a district benchmark assessment), teachers should research what accommodations will be available to students during their state's summative assessment. For example, some states allow ELLs to use a bilingual dictionary during an assessment; other states do not allow this. Ensure your ELLs are practicing with the accommodations they can expect to see on the summative. Some examples of appropriate accommodations include:

- Reading the directions aloud to students multiple times.
- Providing student directions in student native language.
- Allowing students additional time to complete the mini-assessments.
- Exposing students to item types prior to the assessment.
- Reading the scoring expectations for the writing prompt aloud to students.

Because the goal of literacy mini-assessments is to measure grade-level literacy as students progress toward college- and careerreadiness, teachers must be careful **not** to make modifications that may be commonly used in classroom instruction. Examples of modifications that should **not** be used include:

- Reading passages aloud for students.
- Adding student glossaries of unfamiliar terms.
- Pre-teaching tested vocabulary words.

In any testing setting, teachers must be careful to choose accommodations that suit the needs of each individual student.

## **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 <u>http://www.corestandards.org/assets/Appendix\_B.pdf</u>
- See the Text Complexity Collection on <u>www.achievethecore.org</u>

**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 <u>http://www.achievethecore.org/basal-alignment-project</u>

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

• See Appendix B for examples of informational and literary complex texts <u>http://www.corestandards.org/assets/Appendix\_B.pdf</u>

Sample Scoring Rubric for Text-Based Writing Prompts:

http://achievethecore.org/content/upload/Scoring Rubric for Text-Based Writing Prompts.pdf