

Grade 7 Informational Mini-Assessment

“Santorio Santorio and the Thermometer”

This grade 7 mini-assessment is based on the text “Santorio Santorio and the Thermometer” by Robert Mulcahy. This text is considered to be a text worthy of students’ time to read and also meets the expectations for text complexity at grade 7. Assessments aligned to the Common Core State Standards (CCSS) will employ quality, complex texts such as this one. Because the topic of the text is scientific, the mini-assessment will measure both Reading Standards for Informational Text as well as Reading Standards for Literacy in Science and Technical Subjects.

Questions aligned to the CCSS should be worthy of students’ time to answer and therefore do not focus on minor points of the text. 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 seven questions that address the Reading Standards below and one constructed-response question that addresses Reading, Writing, and Language Standards.

We encourage educators to give students the time that they need to read closely and write to the source. 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 is 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.***

The questions align to the following standards:

RI.7.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RI.7.2	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
RI.7.3	Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).
RI.7.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
RI.7.5	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.
RI.7.8	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.
RST.6-8.6	Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
RST.6-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

W.7.1	Write arguments to support claims with clear reasons and relevant evidence.
W.7.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
W.7.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
L.7.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
L.7.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
L.7.3	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 7 Mini-Assessment – “Santorio Santorio and the Thermometer”

Today you will read a passage about Santorio Santorio (March 1561 – February 1636), a physician and professor. You will then answer several questions based on the text. 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 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 answer the questions. I encourage you to write notes in the margin as you read the passages.

“Santorio Santorio and the Thermometer” by Robert Mulcahy

- 1 Galileo built the first working thermoscope. He took a small glass tube filled with air and rubbed it in his hands to warm it up. Then he turned the tube over and put the open end in a small bowl of water. As the air in the tube cooled, water rose into the tube.
- 2 Since cooler air takes up less space than warm air, there would be more space for the water as the air in the tube cooled. The water rising slowly in the tube showed that the air was cooling. When Galileo rubbed the glass tube again, the air inside would heat up, and the water level in the tube would slowly drop because the warmer air took up more space than the cooler air. Although the increase and decrease could be seen, the thermoscope could not measure the degree of the change in a mathematical way.
- 3 Despite this lack of precision, Galileo had constructed a wonderful invention. Yet, he considered it to be a useless toy and even called it a “little joke.” As far as anyone knows, the famous physicist, mathematician, and astronomer never tried to adapt the thermoscope into a device to measure the temperature of the human body.
- 4 It was Santorio Santorio, the physician who had devoted his life to measurements, who realized that he could use the thermoscope to measure body temperature. He made two important changes that transformed Galileo’s thermoscope into the thermometer.
- 5 Santorio’s first innovation was making a glass tube into which a patient could breathe. The person’s breath would heat up the air, which would push the water level down inside the tube. If the person had a fever, the water level in the tube would be pushed down farther because the patient’s breath would be hotter. Santorio colored the water in the tube green so doctors could see it more easily.
- 6 Secondly, Santorio added regularly spaced marks, or tick marks, to his device. This may appear to be a very minor addition to Galileo’s thermoscope, but it was actually a very

important one. With the tick marks, Santorio could get a reading of a patient's temperature and compare this reading to the temperatures of other patients. Or, he could compare the reading to earlier readings taken on the same patient. Santorio knew the thermometer would enable doctors to determine a person's temperature exactly, making both diagnosis and treatment more precise.

- 7 After inventing the thermometer, Santorio built a device to measure a person's pulse rate. Today, people can find their pulse rates without special instruments: they only have to count how many times their pulse beats within a certain period of time. Since the clocks of Santorio's day had no second hand, measuring time exactly was difficult.
- 8 To solve this problem, Santorio built a pendulum—a weight hanging on the end of a piece of string. Then he matched the swing of the pendulum to a person's pulse rate by changing the length of the cord on which the weight was hanging. He improved this device by tying a knot in the cord and measuring the position of the knot on a horizontal scale. Santorio called this device the pulsilogium.
- 9 Among the many other devices Santorio built was a hydroscope, which measured the amount of water in air. To help patients who were paralyzed or had to remain immobile while healing, he invented a bag filled with water in which they could lie and bathe without moving from their bed. He also invented an instrument for removing bladder stones.
- 10 Santorio spent so much time treating patients and inventing that his students at the university accused him of not devoting enough time to his teaching. Although these charges were dismissed, Santorio was bitter over the criticism and retired from the university in 1624. As a reward for his years of outstanding work, however, the Venetian government continued to pay him his university salary for the rest of his life.
- 11 In 1630, Venetian officials asked Santorio to organize the efforts of doctors in their city to combat a plague. That same year, Santorio was elected president of the Venetian College of Physicians. On February 22, 1636, Santorio died from a urinary tract disease and was buried in the Church of the Servi in Venice. When the church was destroyed in 1812 during the Napoleonic Wars, Santorio's skeleton was salvaged, and his skull is now in the museum at the University of Padua.
- 12 A wealthy and respected man, Santorio had never married. As he had no family, he willed his money to endow schools and fund other charities and scientific endeavors.

Excerpt from "Medical Technology: Inventing the Instruments" by Robert Mulcahy, ©1997 by The Oliver Press; pgs 21-24; ISBN 1-881508-34-X.

QUESTIONS

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

Part A: In paragraph 3 of the text, what is the meaning of the word *precision* in the phrase *lack of precision*?

- A. exactness
- B. flexibility
- C. clarity
- D. value

Part B: Which quotation from paragraphs 2 and 3 best helps the reader to determine the meaning of *lack of precision*?

- A. “warmer air took up more space”
- B. “increase and decrease could be seen”
- C. “could not measure the degree of change”
- D. “had constructed a wonderful invention”

2. Which two statements describe the central ideas of the text?

- A. Galileo invented an early version of the thermometer, which he called the thermoscope.
- B. Santorio had many accomplishments during his lifetime.
- C. Santorio was not appropriately recognized for his contributions to the medical community.
- D. Santorio’s many medical inventions were helpful to both patients and doctors.
- E. Galileo inspired many of Santorio’s inventions.
- F. Santorio played a major role in fighting the plague in Italy and training others at the university.

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

Part A: Which two statements describe how paragraphs 1, 2, and 3 contribute to the development of ideas in the text?

- A. They reveal to the reader that Galileo and Santorio both felt they were not appreciated by the scientific community.
- B. They explain the nature of the thermoscope and how it works, which helps the reader understand the basic function of a thermometer.
- C. They suggest that the experiments conducted during Galileo's time had less scientific importance than those of Santorio's time.
- D. They prove that Galileo should be given full credit for Santorio's many inventions.
- E. They examine the similarities of Galileo and Santorio to emphasize how scientific minds typically function.
- F. They show that Galileo's discovery about the function of warm air in a tube was essential to one of Santorio's later inventions.

Part B: Which sentence from the passage best supports the answers to part A?

- A. "Yet, [Galileo] considered it to be a useless toy and even called it a 'little joke.'"
 - B. "As far as anyone knows, the famous physicist, mathematician, and astronomer never tried to adapt the thermoscope into a device to measure the temperature of the human body."
 - C. "It was Santorio Santorio, the physician who had devoted his life to measurements, who realized that he could use the thermoscope to measure body temperature."
 - D. "If the person had a fever, the water level in the tube would be pushed down farther because the patient's breath would be hotter."
4. In paragraphs 4, 5, and 6, the author describes Santorio's updates to Galileo's thermoscope. Circle one sentence from these paragraphs in which the author makes a judgment based on factual evidence about these updates.

5. Which statement below best describes how a thermometer works?

- A. When a patient breathes into a tube, warm air expands, making the water level lower, thus showing the patient has a high temperature that indicates illness.
- B. When a patient breathes into a tube, the pressure from the lungs makes the water level rise, thus showing that the harder a person blows the healthier he or she is.
- C. When a patient breathes into a tube, the warm air mixes with the water, making the water level lower, thus showing the patient has a high temperature that indicates illness.
- D. When a patient breathes into a tube, his or her pulse increases, which makes their breath warmer and makes the water level rise, thus showing that the higher one's pulse rate is, the higher one's temperature is.

6. Because there were no second hands on clocks during Santorio's time, it was difficult to determine a patient's pulse. How did Santorio solve this problem?

- A. He created a bag filled with water to keep patients comfortable while lying still.
- B. He added tick marks to Galileo's device to read and compare patients' temperatures.
- C. He developed a pendulum with a weight and cord to measure rate.
- D. He invented a hydroscope to determine how much water is in the air.

7. In the final paragraph of the passage, the author says that Santorio was a "respected man." Which fact from the passage best supports this statement?

- A. Although these charges were dismissed, Santorio was bitter over the criticism and retired from the university in 1624.
- B. On February 22, 1636, Santorio Santorio died from a urinary tract disease and was buried in the Church of the Servi in Venice.
- C. When the church was destroyed in 1812 during the Napoleonic Wars, Santorio's skeleton was salvaged, and his skull is now in the museum at the University of Padua.
- D. As he had no family, he willed his money to endow schools and fund other charities and scientific endeavors.

8. (Optional Writing Prompt): What was Santorio Santorio like as a person? Make a claim about what kind of person he was and defend your claim using evidence from the text. Write your response in the lines below.

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. The excerpt for this mini-assessment is placed at grade 7 for the purpose of this exemplar. This section of the exemplar explains the process that was used to place the text at grade 7 and the reasons that it meets the expectations for text complexity in Reading Standard 10. “Appendix A of the Common Core” 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 one¹ 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.

“Santorio Santorio and the Thermometer”	Quantitative Measure #1	Quantitative Measure #2
	Flesch-Kinkaid: 10.1	Reading Maturity: 9.5

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 scientific texts, there are often many scientific terms that drive the readability ratings up. Careful attention should be paid to the complexity of the topic itself in these cases so that the scientific terms don’t force the passage into a grade level that is too high for the concept.**

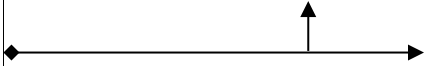
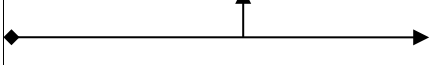
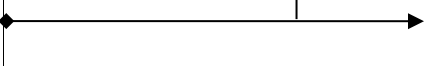
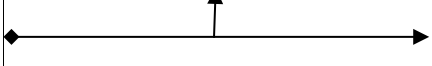
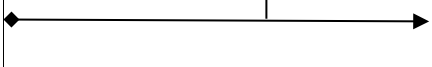
¹ For higher stakes tests, it is recommended that two corresponding text complexity measures be used to place a text in a grade band. When two measures are used, both placing the text in the same **band**, the results provide additional assurance that the text selected is appropriate for the band.

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 [§]	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

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 by doing a qualitative analysis, a sample of which can be found in Appendix A of the CCSS. (www.corestandards.org).

Qualitative Analysis	"Santorio Santorio and the Thermometer"	Where to place within the band?					
Category	Notes and comments on text, support for placement in this band	early 6 – mid 6	end 6- early 7	Mid- end 7	Early – mid 8	End 8	NOT suited to band
Structure: (both story structure or form of piece)	This passage at first appears to be structured chronologically, starting with Galileo and moving to additional advancements that Santorio made to the thermometer. However, after the discussion of the thermometer, the text moves on to explore other inventions by Santorio and then gives a glimpse of how his passion to improve the world influenced his later life. Additionally, within the discussion of the various medical advances, cause and effect is a prominent structure. The complexity of the text is considered high for middle school students.						
Language Clarity and Conventions	Although most of the vocabulary can be expected to be accessible to seventh grade students, some of the scientific terms and proper nouns may present challenges. Additionally, words such as <i>innovation</i> and <i>endow</i> may be difficult. It will be important for students to use word strategies to be successful with this text. Although the text contains mostly compound and complex sentences, the use of standard punctuation will enable students to navigate through it reasonably well.						
Knowledge Demands (life, content, cultural/literary)	To understand the text, it would be helpful for students to know some basic medical terms (temperature, pulse), the fact that Galileo is known as one of the greatest scientists in history, and that the time period of Santorio had limited technology even to the point of no electricity. But even without that knowledge, the information needed to answer the questions lies within the four corners of the text.						
Levels of Meaning (chiefly literary)/ Purpose (chiefly informational)	The main purpose of the text is implicit but readily accessible: Santorio Santorio made numerous valuable contributions to the medical profession and was committed to helping improve the world.						
Overall placement: Grade 7	Justification: This text is complex in regard to organizational structure and knowledge demands. The vocabulary and sentence structure may be challenging but are still accessible to the average 7th grader. This mini-assessment may be most appropriate for advanced seventh graders early in the year, all seventh graders later in the year, or even 8th graders in their first semester.						

Question Annotations & Correct Answer and Distractor Rationales

Question Number	Correct Answer(s)	Standards	Rationales for Answer Options
1 Part A	A	RI.7.4, RI.7.1	<p>A. This is the correct answer. “Precision” means “exactness.” Galileo’s thermoscope generated visible changes, but because the apparatus lacked precision, the exact measurements could not be determined.</p> <p>B. “Flexibility” means the state of being able to adapt or bend. The problem with the thermoscope was that it was not able to provide exact measurements, not whether or not it could bend.</p> <p>C. The problem with the thermoscope wasn’t that the measurements were unclear; it was that they were imprecise, and could not measure with “exactness” or “precision.”</p> <p>D. The thermoscope actually proved to be very valuable later, as it served as a basis for the invention of the thermometer, but “precision” does not mean “value.”</p>
1 Part B	C		<p>A. “Warmer air took up more space” does not help explain “lack of precision.” This term explains the scientific principle behind the thermoscope, not how precisely it measured specific units.</p> <p>B. “Increase and decrease could be seen” does not help explain “lack of precision.” This phrase explains that there was a visible change, but focuses on general instead of specific, precise changes.</p> <p>C. This is the correct answer. “Could not measure the degree of change” explains the lack of precision with the thermoscope. To maximize its potential, the thermoscope needed to be able to measure precisely.</p> <p>D. “Had constructed a wonderful invention” does not help explain lack of precision. This phrase focuses on the creation of the thermoscope, not its ability to work exactly.</p>
2	B, D	RI.7.2, RI.7.1	<p>A. This statement describes a minor detail included in the article to demonstrate Santorio’s genius: developing an integral tool Galileo had considered a toy.</p> <p>B. This is a correct answer. This text explains several important inventions Santorio created, like the thermometer, the pulsilogium, and hydroscope, as well as Santorio’s roles of teacher, college president, and benefactor.</p> <p>C. This statement is incorrect, as it is inaccurate. Although Santorio was disciplined for appearing to not focus on teaching, he was later recognized in several important ways.</p> <p>D. This is a correct answer. The article explains the benefit of Santorio’s inventions for both patients and their physicians so that accurate diagnoses could be made and treatments could be provided.</p> <p>E. This statement is incorrect, as the author does not suggest that Galileo inspired many of Santorio’s inventions. Instead the author details that only that Santorio realized he could use the principle of Galileo’s thermoscope to create a thermometer.</p> <p>F. This statement describes a minor detail from the article, describing only one of Santorio’s many accomplishments.</p>

<p>3 Part A</p>	<p>B, F</p>	<p>RST.6.8.-6, RI.7.5, RI.7.1</p>	<p>A. The author does not suggest that Galileo felt unappreciated and does not mention Santorio feeling this way until paragraph 10.</p> <p>B. This is a correct answer. Paragraphs 1 and 2 explain the scientific principles behind Galileo’s thermoscope, while paragraph 3 describes his opinion on its usefulness. This information establishes the connection to Santorio’s later improvements.</p> <p>C. The author does not suggest that experiments conducted at one point in history were more or less important than others. Instead, he explains how Santorio built upon ideas Galileo had considered previously.</p> <p>D. The author does not suggest that Galileo is due credit for Santorio’s inventions, but rather explains the connections between the two men’s ideas.</p> <p>E. Although these paragraphs help readers understand Galileo’s thoughts about his thermoscope, the focus is on the scientific principle that links one of Galileo and Santorio’s inventions, not how scientific minds work.</p> <p>F. This is a correct answer. These paragraphs illustrate how Galileo’s observations became the foundation for Santorio’s thermometer.</p>
<p>3 Part B</p>	<p>C</p>		<p>A. The statement explains Galileo’s misconception of his invention, rather than how Santorio transformed his idea.</p> <p>B. The statement explains the outcome of the thermoscope for Galileo, not how Santorio went on to develop the thermometer based on Galileo’s observations.</p> <p>C. This is the correct answer. This statement supports the idea that Santorio built upon Galileo’s initial discovery.</p> <p>D. The statement explains how Galileo’s invention worked, rather than how Santorio utilized the idea behind the invention.</p>
<p>4</p>	<p>He made two important changes that transformed Galileo’s thermoscope into the thermometer. (para. 4)</p> <p>This may appear to be a very minor addition to Galileo’s thermoscope, but it was actually a very important one. (para. 6)</p>	<p>RST.6-8.8, RST.6-8.1</p>	<p>This statement explains how Santorio changed Galileo’s invention, which the author categorizes as “important.”</p> <p>This statement explains one change Santorio made to Galileo’s thermoscope, including the author’s judgment that the addition was “a very important one.”</p>

5	A	RI.7.3, RI.7.1	<p>A. This is the correct answer. This statement accurately describes how the thermometer works, as well as the conclusions that can be drawn from its results.</p> <p>B. The purpose of a thermometer is to measure a person’s body temperature, not lung capacity. It does not work based on pressure from air from the lungs.</p> <p>C. A thermometer operates by keeping a person’s air and the water inside separate rather than mixing them.</p> <p>D. A thermometer measures a person’s temperature by determining how the person’s breath, not pulse, affects the water level.</p>
6	C	RI.7.3, RI.7.1	<p>A. It explains another of Santorio’s inventions, rather than how he solved for the lack of second hands on clocks.</p> <p>B. It describes how Santorio refined his thermometer, not how he worked around a lack of refinement in clocks.</p> <p>C. This is the correct answer. Because clocks lacked a second hand to accurately measure time, Santorio adapted the length of a weighted rope and a pendulum to measure a person’s pulse rate.</p> <p>D. It identifies another of Santorio’s inventions, unrelated to the problem with the lack of second hands on clocks.</p>
7	C	RI.7.8, RI.7.1	<p>A. This option is incorrect. It only explains that charges of neglecting his students were dismissed, not that Santorio was a “respected man.”</p> <p>B. This option is incorrect. Although Santorio was buried in a church, this detail alone does not support the idea that Santorio was a “respected man.”</p> <p>C. This is the correct answer. This fact supports the author’s statement that Santorio was a “respected man” because his remains were saved from warring invaders and his skull, a tribute to his ideas, is currently displayed at a university.</p> <p>D. This option is incorrect. It focuses on one of Santorio’s actions that may have generated respect, rather than demonstrating that others respected him.</p>
8 (Optional Writing Prompt)	See right column	W.7.1, W.7.4, W.7.9, RI.7.8, RI.7.1, L.7.1, L.7.2, L.7.3	<p>A good student response will include most of the following points:</p> <ul style="list-style-type: none"> • Santorio’s inventions were focused on improving diagnoses for patients so that doctors could treat accordingly. The thermometer is a good example: “Santorio knew the thermometer would enable doctors to determine a person’s temperature exactly, making both diagnosis and treatment more precise.” • Santorio also invented the pulsilogium to improve the accuracy of measuring a patient’s pulse. For both the thermometer and the pulsilogium, Santorio kept working to improve, showing determination and commitment to reach his goal of improving lives. • Santorio invented a bathing bag for those unable to get out of bed, further showing he was committed to making those suffering more comfortable. • Santorio also introduced a way of removing bladder stones. • He taught at the university, wanting to share his knowledge with others. • He willed all of his money to schools, charities, and scientific endeavors.

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.
 - MOST vocabulary items test Tier 2 words.
 - 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 mini-assessments 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 mini-assessments 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 career-readiness, 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
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

Sample Scoring Rubric for Text-Based Writing

Prompts: http://achievethecore.org/content/upload/Scoring_Rubric_for_Text-Based_Writing_Prompts.pdf