

Massachusetts MCAS 2022  
Grade 4 English Language Arts

Exam Materials  
Pages 2 - 22

Answer Key Materials  
Pages 23 - 24



MASSACHUSETTS DEPARTMENT OF  
ELEMENTARY AND SECONDARY  
**EDUCATION**

*Release of Spring 2022  
MCAS Test Items*

*from the*

*Grade 4 English Language Arts  
Paper-Based Test*

**June 2022**

**Massachusetts Department of  
Elementary and Secondary Education**

# Grade 4 English Language Arts

This session contains 20 questions.

## Directions

Read each passage and question carefully. Then answer each question as well as you can. You must record all answers in this Test & Answer Booklet.

For most questions, you will mark your answers by filling in the circles in your Test & Answer Booklet. Make sure you darken the circles completely. Do not make any marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

Some questions will ask you to write a response. Write your response in the space provided. Only responses written within the provided space will be scored.

Read the passage about the International Space Station (ISS), where astronauts live when they are in space, and then answer the questions that follow.

### Home Address: ISS International Space Station

*by James Buckley Jr.*

#### **Welcome Home**

- 1 Good-bye, Earth! Hello, space! This huge machine will be your home for the next three months. The International Space Station, or ISS, flies 205 miles (330 km) above the Earth. It travels more than five miles (eight km) per second. That's one spin around our planet every 90 minutes!
- 2 Fifteen nations worked together to build the ISS. It took more than 10 years to finish. The ISS is bigger than a football field. It's the world's largest high-flying, fast-moving house!
- 3 First step on your mission: reaching the ISS! After about six hours, your rocket ship from Earth has nearly arrived at the space station. While you're on the rocket, you can take off your helmet. But when it's time to dock, helmets are on!
- 4 A smaller rocket connects with the ISS. When you glide onto the space station, you're greeted by an astronaut. There is always someone home at the ISS!



### Good Space Morning!

- 5 After the flight from Earth, your first day on the ISS begins. Check it out—wake-up music! The controllers on Earth send up your favorite tunes. Some astronauts make requests. Others get a surprise, like a rock tune with their name in it!
- 6 In space, the sun comes “out” about every 90 minutes, so when does the day begin? You’ll live on the same schedule as the controllers on Earth.
- 7 Time to brush your teeth. On the ISS, people live and work close together. Good breath is a big plus! After you brush, just swish and swallow. There’s no spitting in space. You can even use your favorite brand of toothpaste. (Don’t let the cap float away!)
- 8 Need to wash up? There are no showers here, only sponge baths. To wash your hair, you use a special shampoo. You don’t need water—just squirt, scrub, and wipe!
- 9 Everybody has to “go” . . . even in space. Using the toilet in the ISS is a bit tricky. The space toilet is designed to keep liquids and solids from floating away. Liquid waste goes down a tube designed for men or women. For solid waste, you sit on a small seat in a compartment. A vacuum below sucks in while you let everything out.
- 10 Afterward, wash your hands with disposable<sup>1</sup> cloths like the hand wipes you use on Earth.
- 11 Like everything else on the ISS, eating takes a bit more work than it does on Earth. Here, most of your food is dehydrated. That means all the water has been taken out. So you add a bit of water, stir, and eat.
- 12 This is an international space station, so you might have food from different countries. Russian cosmonauts bring great spicy lamb soup. The Japanese crew has left behind fish soup for you. And there are always plenty of tortillas—some astronauts fill them with peanut butter and jelly!
- 13 Liquids can only be taken in with straws. An escaping blob of floating orange juice could damage ISS gear. And no crumbs, please!
- 14 After breakfast, you can put on your clothes for the day. You can’t waste water washing clothes on the space station. Instead, you’ll put on new clothes every two or three days. The tricky part is dressing while floating in zero gravity!

<sup>1</sup>disposable—throwaway; single-use

- 15 You won't wear shoes, either. Since you'll be floating around, your feet might touch pieces of gear. So soft slippers make your feet comfy and safe!
- 16 After everyone is ready, it's time for work. Each morning, the ISS crew gathers to plan the day. Part of the fun of living on the space station is working with people from other countries. You have to study languages to live in space. People could be speaking English, Russian, Japanese, or French!
- 17 The station commander makes sure the crew knows their jobs for the day. Up to six full-time crew members can be on board. When a spaceship is docked, that can add three more people!
- 18 After the morning meeting, the workday begins.

### **Astronauts at Work**

- 19 It's very important that the ISS works properly. The crew checks all the space station's gear and machines every day. You might have to change an air filter. Even the toilet might need some attention to work perfectly. Just like in a home on Earth, there is always something that needs fixing!
- 20 If you use tools, you have to make sure they don't float too far away. You can hook your feet in straps if you need to stay in one place while you work.
- 21 Like most of the ISS crew, you are also a scientist. Living in space gives you a chance to do important experiments. Your tests can help people on Earth!
- 22 ISS studies have led to the invention of new medicines. Crews have learned how human bodies live in space. They have observed more about our galaxy. They have even grown plants and watched animals adapt to space.
- 23 It takes dozens of computers to run the International Space Station. They help you perform and record experiments, communicate with Earth, or operate the ISS. Making sure the computers are all working is a big part of your day.
- 24 You might even be the ISS computer expert. One of the crew is in charge of installing and repairing computer parts and programming. He or she works with a team on Earth to keep things humming along.

- 25 Nearly all your time is spent inside the ISS. But sometimes, you get to step outside . . . into space! You put on a huge space suit. This provides air and protects you from the cold of space. You connect yourself to the ISS with strong cords. Then you float!
- 26 A space walk is not playtime. Each space walk is like a mini mission. You need to have the right tools and training, and then get the job done. That might mean replacing a part, fixing a solar panel, or changing a window shield. It also means using tools while wearing huge, bulky gloves! . . .

### **Chores? In Space?**

- 27 You have chores at home, you have chores in space! The whole crew works together to keep their space home tidy. No mops, though. Use hand wipes to clean surfaces. Vacuuming removes floating dust or crumbs from the air.
- 28 In a crowded space like the ISS, everything has a place. You have to make sure that all the gear is stowed properly and tied down. You never know when you might need it! Velcro is your best friend.
- 29 Teamwork is important on the space station. Everyone has to work together and get along. You can't go out somewhere to get away from one another.
- 30 The ISS is usually on autopilot.<sup>2</sup> But it still needs a driver. You have to practice steering, just in case. In an area called the central post, you look at a computer screen. It shows all the controls. You can make the space station rotate slowly or change direction. It's important for the ISS to keep the right orientation<sup>3</sup> with the Earth and the sun. Why do you think that is? Here's a hint: The space station runs on solar energy.
- 31 You can also practice using one of the station's robot arms. They can work in space while you sit safely inside!
- 32 Your muscles won't work as hard in space. After all, you're just floating! To make sure your muscles stay strong during your long stay, you exercise every day. You can pedal on a machine that is like a bicycle without wheels. You can strap yourself in to a treadmill. The straps will keep you from floating away!

<sup>2</sup>autopilot—automatic control

<sup>3</sup>orientation—physical position

- 33 A special machine called the A-RED helps you “lift weights.” Since everything is weightless in space, you’re really pushing against a machine, not raising heavy things. . . .

### **Good Night, Float Tight!**

- 34 After a hard day’s work, it’s time for dinner. First, pick your packaged dinner. How about turkey tonight? If you want potatoes, too, you have to add water (carefully!) and then heat. Many ISS crew members like to add hot sauce. In space, food seems not to taste as good, and the spiciness helps. Since you have just arrived with fresh supplies, there are some apples and oranges to eat. Enjoy them now. With only a small fridge, you won’t have fresh fruit for long.
- 35 When the work on the station is all finished, it’s time to relax. You might float around and read a book. You can listen to music on your headphones. Some crew members read and send e-mail. It’s a great way to keep up with faraway family and friends.
- 36 You might take a break for a concert. Some astronauts have brought musical instruments. They had to learn how to move their hands in zero gravity to make music!
- 37 Finally, it’s time for bed. Well, time for sleep, anyway. You can spend the night in a sleeping bag stuck to a wall. Or you can slip into one of the space station sleeping pods. A fan will blow near your head. That pushes fresh air over your face. Otherwise, the air you breathe out would cover your face like a bubble. Some crew members wear earplugs, too. The ISS machines never sleep, so there is always humming, buzzing, and whirring going on around you.
- 38 When you fall asleep, you might just dream that you’re floating in space.
- 39 Now it is “night” on the ISS. You have been around the world more than seven times since you woke up!
- 40 While you sleep, one crew member is hard at work. He’s called Robonaut. He’s a robot astronaut! Robonaut helps keep ISS systems working while the human crew rests.
- 41 Good night, Robonaut.
- 42 Good night, ISS.





*Home Address: ISS International Space Station* by James Buckley, Jr. Text copyright © 2015 by Penguin Random House LLC and Smithsonian Institution. Reprinted by permission of Smithsonian Institution. Photographs courtesy of NASA.

- 1** What is the **main** idea of the section **Good Space Morning!**?
- Ⓐ People plan their time differently in space than on Earth.
  - Ⓑ People from different countries can learn to work together.
  - Ⓒ Astronauts from various countries learn to like different activities.
  - Ⓓ Astronauts complete their daily activities differently in space than on Earth.

**2 Part A**

Based on paragraphs 21 and 22, what is the **most important** job of astronauts on the International Space Station?

- Ⓐ to learn about others
- Ⓑ to do scientific research
- Ⓒ to find new ways to cook
- Ⓓ to invent interesting ways to exercise

**Part B**

Which sentence from the passage **best** supports the answer to Part A?

- Ⓐ "People could be speaking English, Russian, Japanese, or French!" (paragraph 16)
- Ⓑ "The crew checks all the space station's gear and machines every day." (paragraph 19)
- Ⓒ "If you use tools, you have to make sure they don't float too far away." (paragraph 20)
- Ⓓ "Your tests can help people on Earth!" (paragraph 21)

## English Language Arts

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**3** Based on paragraph 24, what does the phrase “humming along” mean?

- Ⓐ singing loudly
- Ⓑ acting bravely
- Ⓒ resting comfortably
- Ⓓ functioning smoothly

**4** Read the sentences from paragraph 26 in the box.

- A space walk is not playtime.
- That might mean replacing a part, fixing a solar panel, or changing a window shield.

What do the sentences **best** show about a space walk?

- Ⓐ Astronauts must always be ready for a space walk.
- Ⓑ Astronauts need special equipment for a space walk.
- Ⓒ Astronauts are able to go outside during a space walk.
- Ⓓ Astronauts have tasks to complete during a space walk.

## English Language Arts

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- 5 Read the sentence from paragraph 28 in the box.

You have to make sure that all the gear is stowed properly and tied down.

What does the word **stowed** mean as it is used in the sentence?

- Ⓐ shoved
  - Ⓑ covered
  - Ⓒ put away
  - Ⓓ swept up
- 6 Based on paragraph 30, why is it “important for the ISS to keep the right orientation with the Earth and the sun”?
- Ⓐ to allow the astronauts to enjoy the warmth of the sun
  - Ⓑ to make sure the station is being powered by the sun
  - Ⓒ to allow communication with the controllers on Earth
  - Ⓓ to make sure the station is traveling towards Earth

**7** What is the **main** idea of paragraph 32?

- Ⓐ how to relax in space
- Ⓑ how to stay fit in space
- Ⓒ how to stay safe in space
- Ⓓ how to ride a bike in space

**8** Read the sentence from paragraph 33 in the box.

A special machine called the A-RED helps you “lift weights.”

Based on the paragraph, what is the **most likely** reason the author uses quotation marks in the sentence?

- Ⓐ to explain the importance of lifting weights
- Ⓑ to show that someone is talking about lifting weights
- Ⓒ to suggest the astronauts are not actually lifting weights
- Ⓓ to emphasize that lifting weights is not an interesting activity

- 9 What is the author's **most likely** purpose for including paragraphs 12 and 34 in the passage?
- Ⓐ to demonstrate how to cook food on the station
  - Ⓑ to describe what foods are delivered to astronauts
  - Ⓒ to explain what foods are always available on the station
  - Ⓓ to provide examples of types of food eaten by astronauts
- 10 Based on the passage, what is the purpose of the Robonaut?
- Ⓐ to run the station while the astronauts sleep
  - Ⓑ to entertain the astronauts after they finish work
  - Ⓒ to cook for the astronauts after they do experiments
  - Ⓓ to complete chores on the station while the astronauts relax

## English Language Arts

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- 11** Read the details from the passage about working and living on the International Space Station. Identify whether **each** detail is related to work or to life on the station.

Astronauts have to check the station's machines every day.

- Ⓐ work
- Ⓑ life

Astronauts wear large gloves when they fix equipment.

- Ⓐ work
- Ⓑ life

Astronauts use a lot of Velcro to keep gear in position.

- Ⓐ work
- Ⓑ life

Astronauts often put hot sauce on their space food.

- Ⓐ work
- Ⓑ life

Astronauts must use straws to drink.

- Ⓐ work
- Ⓑ life

- 12** Based on the passage, write a paragraph that explains why teamwork is important on the International Space Station. Support your response with important details from the passage.

[illegible]



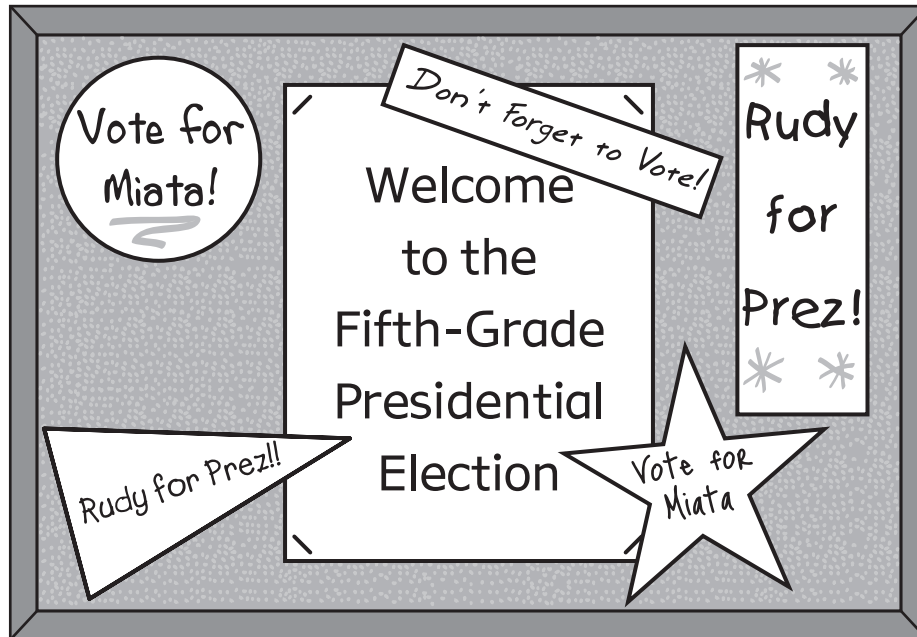
## English Language Arts

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Read the story about a fifth-grade girl named Miata, who wants to run for class president. Then answer the questions that follow.

### from *Off and Running*

by Gary Soto



- 1 Miata Ramirez stopped working on her fifth-grade math when the speaker on the wall crackled and hissed. She put down her pencil and blew the eraser rubbings from her paper. She sucked in a lot of air and blew again, sending the rubbings off the top of her desk. They fell to the floor like black snow.
- 2 The speaker crackled, hissed, and finally popped. The school principal, Mr. Rios, was ready to make his daily announcements. His voice was as thick as a frog's.
- 3 "Good morning, students," he greeted them.
- 4 Miata looked up at the speaker and mouthed, "*Buenos días*."<sup>1</sup>

<sup>1</sup>*Buenos días*—Spanish for "good morning"

- 5 The principal cleared his throat. He announced the canned-food drive, the *folklórico*<sup>2</sup> sign-ups, the baseball card swap meet, and the soccer practice after school. He mentioned the special visitor on Thursday, Señor Gomez the Magnificent, and the fifth-grade field trip to the zoo. He informed the students that two jackets had been found on the playground. "One of them has three dollars in change," he added.
- 6 Everybody's hands shot up. "Oh, it's my jacket. It's mine!"
- 7 Mrs. Diaz, the teacher, told them to settle down, which they did.
- 8 Mr. Rios announced the spelling bee and the PTA meeting. Then he sneezed loudly.
- 9 "*Salud*,"<sup>3</sup> Miata mouthed. She couldn't help noticing that the flag of the United States near the speaker moved. Strong sneeze, she thought.
- 10 "And congratulations to Rudy Herrera for collecting the most aluminum cans," Mr. Rios continued after a moment. He announced that Rudy had won the baseball autographed by a slugger for the San Francisco Giants.
- 11 Miata winced. She had wanted the baseball badly. She had never gotten an autograph from anyone famous. Her one autograph was from Ronald McDonald, who she knew was really her cousin Manuel in costume.
- 12 "He's lucky," Miata said to herself. She imagined Rudy on the school grounds, tossing the ball up and down, up and down, almost showing off. He would probably add his name to the baseball. . . .
- 13 The principal sneezed a second time and then announced the fall elections for school officers. He explained the school tradition allowing only fifth-graders to run for president and vice president. And only this grade was allowed to vote, since they were the oldest students in their school. He mentioned that Miata Ramirez and Ana Avila from room 6 had decided to run for the top offices.
- 14 "From room eight," Mr. Rios continued, "we have two more candidates . . . Rudy Herrera for prez and Alex Garcia for vice prez."
- 15 Miata lifted her eyebrows as she turned to Ana, sitting two seats to her left.
- 16 "Rudy and Alex?" Miata mouthed.

<sup>2</sup>*folklórico*—Mexican folk dancing

<sup>3</sup>*Salud*—Spanish for "bless you"

- 17 “Yes, Rudy and Alex,” Mr. Rios replied, anticipating the school’s disbelief. The boys were known as goofy kids on and off the playground. Only last week they had come to school wearing mismatched shoes—a red tennis shoe on one foot and a black tennis shoe on the other.
- 18 The speaker crackled, hissed, and popped and then went silent.
- 19 Miata shook her head and continued with her math problems. A new herd of eraser rubbings quickly gathered on her desk. But her mind began to wander. It kept returning to the school elections. She recalled that three of her cousins in Los Angeles—Veronica, Lalo, and Rosie—had won their school elections. It’s in my blood, she figured. I’m meant for politics. This might be the beginning of something big.
- 20 When the recess bell rang, Miata and Ana, the best of friends and now running mates in the school elections, hurried out of their classroom.
- 21 “Can you believe it?” Miata asked as she led Ana toward the slides. “We have to run against Rudy and Alex.”
- 22 Ana was smaller than Miata. She was small enough to pass for a third-grader. But she was quick, and as bright as a flashlight beaming three inches from your face. She was loyal, too. When Miata had asked Ana if she wanted to be her running mate, Ana had shouted, “*Claro que sí.*”<sup>4</sup> She thought that Miata meant going out for the track team. But Miata gave her the lowdown about the school elections. Ana froze with worry, a finger in her mouth like a carrot.
- 23 “Why do you want to run?” Ana asked.
- 24 Ana’s question had given Miata momentary pause. She knew that she wanted to do something big, a selfish reason by itself. She turned this question over and over like a coin. Did she have something to give to the school, or was she clamoring for popularity? As if it were homework, she decided to save the hard question until later.
- 25 “Just because it would be neat to try to win,” Miata finally answered Ana.
- 26 It was recess. Ana and Miata stood alone on the school grounds.
- 27 “I know. Everybody likes them, but I think we can beat them,” Ana said. She bit into her apple and chewed it like a rabbit.

<sup>4</sup>*Claro que sí*—Spanish for “of course”

## English Language Arts

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**13** What does the illustration **best** help the reader understand about the story?

- Ⓐ the theme
- Ⓑ the main plot
- Ⓒ the characters' dialogue
- Ⓓ the main character's solution

**14** Read the dictionary entry in the box.

**settle:** v. **1.** to finally agree upon **2.** to create a home for **3.** to pay  
**4.** to make calm

Based on the story, which meaning of the word **settle** is used in paragraph 7?

- Ⓐ meaning 1
- Ⓑ meaning 2
- Ⓒ meaning 3
- Ⓓ meaning 4

**15** Based on the story, how does Miata **most likely** feel when she hears that Rudy has won the autographed baseball?

- Ⓐ proud
- Ⓑ happy
- Ⓒ jealous
- Ⓓ worried

## English Language Arts

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**16** Based on paragraph 17, what is the meaning of the prefix **dis-** in the word **disbelief**?

- Ⓐ common
- Ⓑ without
- Ⓒ strong
- Ⓓ inner

**17** Read the sentence from paragraph 19 in the box.

A new herd of eraser rubbings quickly gathered on her desk.

In the sentence, what does the word **herd** describe?

- Ⓐ the amount of the eraser rubbings
- Ⓑ the noise the eraser rubbings made
- Ⓒ the way that the eraser rubbings moved
- Ⓓ the speed at which the eraser rubbings disappeared

**18** Based on paragraphs 20–22, what are **running mates**?

- Ⓐ people who want to be best friends
- Ⓑ people who participate in track teams
- Ⓒ people who vote for the same candidate
- Ⓓ people who want to win an election together

- 19** Read the sentence from paragraph 24 in the box.

She turned this question over and over like a coin.

What does the sentence **best** show about Miata?

- Ⓐ She is feeling angry about Ana's question.
  - Ⓑ She is deciding what to buy for the election.
  - Ⓒ She is thinking about why she wants to run in the election.
  - Ⓓ She is too busy working on her homework to answer Ana's question.
- 20** Why are paragraphs 22–25 important to the story?
- Ⓐ They describe Miata's and Ana's excitement about the election.
  - Ⓑ They show the first time Miata and Ana learn about the election.
  - Ⓒ They describe Miata's and Ana's doubt about whether they could win the election.
  - Ⓓ They show the first time Miata and Ana talk about running with each other in the election.

**Grade 4 English Language Arts**  
**Spring 2022 Released Operational Items**

<b>PBT Item No.</b>	<b>Page No.</b>	<b>Reporting Category</b>	<b>Standard</b>	<b>Item Type*</b>	<b>Item Description</b>	<b>Correct Answer (SR)**</b>
1	9	<i>Reading</i>	RI.4.8	SR	Determine the main idea of a section of the passage.	D
2	9	<i>Reading</i>	RI.4.2	SR	Identify the most important task individuals complete and choose evidence from the passage that best supports the response.	B;D
3	10	<i>Language</i>	L.4.5	SR	Determine the meaning of a phrase based on information from the passage.	D
4	10	<i>Reading</i>	RI.4.1	SR	Make an inference using details from the passage.	D
5	11	<i>Reading</i>	RI.4.4	SR	Determine the meaning of a word in context.	C
6	11	<i>Reading</i>	RI.4.1	SR	Make an inference based on information from the passage.	B
7	12	<i>Reading</i>	RI.4.2	SR	Determine the main idea of a paragraph in the passage.	B
8	12	<i>Language</i>	L.4.3	SR	Identify the effect of punctuation used in the passage.	C
9	13	<i>Reading</i>	RI.4.5	SR	Determine the purpose of two paragraphs in the passage.	D
10	13	<i>Reading</i>	RI.4.1	SR	Make an inference based on information from the passage.	A
11	14	<i>Reading</i>	RI.4.1	SR	Identify what topics several details from the passage are related to.	A;A;A; B;B
12	15	<i>Reading</i>	RI.4.3	CR	Write a paragraph that explains the importance of teamwork, using important details from the passage as evidence.	
13	19	<i>Reading</i>	RL.4.7	SR	Determine how an illustration contributes to the understanding of the story.	B
14	19	<i>Language</i>	L.4.4	SR	Determine the meaning of a word in context.	D
15	19	<i>Reading</i>	RL.4.3	SR	Identify the feelings of a character described in the story.	C
16	20	<i>Language</i>	L.4.4	SR	Determine the meaning of an affix.	B
17	20	<i>Reading</i>	RL.4.4	SR	Determine what is described by a word used in the story.	A
18	20	<i>Reading</i>	RL.4.4	SR	Determine the meaning of a phrase in context.	D
19	21	<i>Language</i>	L.4.5	SR	Determine what a simile suggests about a character from the story.	C
20	21	<i>Reading</i>	RL.4.5	SR	Identify the importance of a section in the story.	D

\* ELA item types are: selected-response (SR), constructed-response (CR), and essay (ES).

\*\* Answers are provided here for selected-response items only. Sample responses and scoring guidelines for any constructed-response and essay items will be posted to the Department's website later this year.

**Grade 4 English Language Arts**  
**Spring 2022 Unreleased Operational Items**

<b>PBT Item No.</b>	<b>Reporting Category</b>	<b>Standard</b>	<b>Item Type*</b>	<b>Item Description</b>
21	<i>Reading</i>	RL.4.5	SR	Determine the importance of a given section to the overall story.
22	<i>Language</i>	L.4.5	SR	Identify what a phrase suggests about characters in the story.
23	<i>Reading</i>	RL.4.3	SR	Determine what a paragraph suggests about a character and choose evidence from the story that supports the suggestion.
24	<i>Reading</i>	RL.4.2	SR	Identify a detail that supports the theme of the story.
25	<i>Reading</i>	RL.4.3	SR	Identify how a character in the story feels and choose evidence that best supports the feeling.
26	<i>Reading</i>	RL.4.4	SR	Determine the meaning of a phrase used in the story.
27	<i>Language</i>	L.4.4	SR	Determine the meaning of a word in context.
28	<i>Reading</i>	RL.4.2	SR	Identify a theme of the story.
29	<i>Reading</i>	RL.4.6	SR	Identify the narrator of the story.
30	<i>Language</i>	L.4.2	SR	Identify the purposes of punctuation used in sentences from the story.
31	<i>Language, Writing</i>	L.4.1, L.4.2, L.4.3, W.4.3, W.4.4	ES	Write a narrative that describes what will most likely happen next in the story.

\* ELA item types are: selected-response (SR), constructed-response (CR), and essay (ES).