

**Grade 7**  
**English Language Arts/Literacy**  
**Research Simulation Task**

**2019 Released Items**

## **2019 Released Items: Grade 7 Research Simulation Task**

The Research Simulation Task requires students to analyze an informational topic through several articles or multimedia stimuli. Students read and respond to a series of questions and synthesize information from multiple sources in order to write an analytic essay.

The 2019 blueprint for the grade 7 Research Simulation Task includes Evidence-Based Selected Response/Technology-Enhanced Constructed Response items as well as one Prose Constructed Response prompt.

### **Included in this document:**

- Answer key and standards alignment
- PDFs of each item with the associated text(s)

### **Additional related materials not included in this document:**

- Sample scored student responses with annotations and practice papers
- Scoring Rubric for Prose Constructed Response Items
- Guide to English Language Arts/Literacy Released Items: Understanding Scoring

**Release Items Answer and Alignment Document ELA/ Literacy:  
Grade 7**

**Text Type:** RST

**Passage(s):** from *Tornado!*/"Measuring Tornadoes"/"New Alert System Designed to Warn Residents of Storms and Other Dangers"

<b>Item Code</b>	<b>Answer(s)</b>	<b>Standards/Evidence Statement Alignment</b>
<b>VH069108</b>	<b>Item Type: EBSR</b> <b>Part A: C</b> <b>Part B: B</b>	RST 7.1.3 RI 7.4.1
<b>VH069296</b>	<b>Item Type: EBSR</b> <b>Part A: A</b> <b>Part B: A</b>	RST 7.1.3 RST 7.5.2
<b>VH069299</b>	<b>Item Type: EBSR</b> <b>Part A: B</b> <b>Part B: D</b>	RST 7.1.3 RST 7.5.2
<b>VH069311</b>	<b>Item Type: EBSR</b> <b>Part A: A</b> <b>Part B: D</b>	RST 7.1.3 RI 7.4.1
<b>VH069328</b>	<b>Item Type: EBSR</b> <b>Part A: D</b> <b>Part B: D</b>	RST 7.1.3 RST 7.7.3
<b>VH069333</b>	<b>Item Type: TECR</b> <b>Part A: D</b> <b>1</b> TAVARES—On the heels of a tornado-like windstorm that socked Groveland, Lake's emergency manager has announced the launch of an improved warning system designed to issue weather alerts and other critical notices. <b>2</b> "This is an advance for Emergency Management to be able to notify the public of any impending danger," said Jerry Smith, Lake's emergency management director, who outlines the new system's capabilities. <b>3</b> The new system, financed by grants totaling nearly \$130,000, allows public-safety officials to send warning and law-enforcement advisories to home phones and to mobile phones registered with the county. <b>4</b> Lake's previous system could not send alerts to mobile phones. <b>5</b> The new alert system was online recently and dispatched tornado warnings to residents in east Lake but not in the Groveland	RST 7.1.3 RI 7.4.1

<b>VH069353</b>	<b>Item Type: EBSR</b> <b>Part A: D</b> <b>Part B: A</b>	RST 7.1.3 RST 7.5.2
<b>VH069346</b>	<b>Item Type: EBSR</b> <b>Part A: B</b> <b>Part B: B, C</b>	RST 7.1.3 RI 7.2.2
<b>VH069361</b>	<b>Item Type: PCR</b> Refer to Grade 7 Scoring Rubric	RST 7.1.3 RST 7.6.4 RST 7.9.3 RI 7.9.1
<b>VH119424</b>	<b>Item Type: TECR (additional item)</b> 1. <input type="text"/> The Fujita scale helps scientists to assess the force of a tornado. 2. <input type="text"/> The original Fujita scale only went as high as F5 because scientists believed that a tornado could not be stronger. 3. <input type="text"/> The Fujita scale is helpful, but it can sometimes be less useful if no damage to structures is sustained. 4. <input type="text"/> Based on problems with the original Fujita scale, scientists felt the scale needed to be revised. 5. <input type="text"/> F4 and F5 tornadoes are rare, but caution is still needed even for weak tornadoes.	RST 7.1.3 RI 7.2.3

**Today you will read three texts about tornadoes. As you review these three sources, you will gather information and answer questions about different points of view and purposes regarding tornadoes in order to write an essay.**

Read the passage from the book *Tornado!* Then answer the questions.

from *Tornado!*

by Jules Archer

- 1** Tornadoes blasting over barnyards have stripped chickens of their feathers. Some have snatched blankets and mattresses off beds, leaving sleepers terrified but unharmed. One 1912 tornado plucked a telephone pole out of the ground. Then, as it traveled, it bounced the pole up and down like a pogo stick. In St. Louis in 1896 a tornado drove a two-by-four plank through an iron sheet.
- 2** One tornado picked up a locomotive from its track. Then it set the engine down facing the other way on the opposite track. In 1974 a tornado in Xenia, Ohio, sucked up hundreds of trees from an orchard. In West Virginia a 1944 tornado passing over the West Fork River sucked the whole river dry. One woman sought to hide from a tornado in a closet under her back stairway. When she opened the door after the storm, she found that the closet and stairway were all that were left of her house!
- 3** These terrifying windstorms can also perform amazing feats of gentleness. One tornado transported a crate of eggs 500 yards without cracking a single shell. Mirrors have been carried for miles and set down unbroken. One jar of pickles traveled 25 miles with a tornado. Then it was lowered unbroken into a ditch.
- 4** These exceptions to a tornado's ferocity can be explained. Such objects were lowered through the storm's outer fringes. There, a rising air current let them descend to earth gently.
- 5** These stories of tornado freakishness might seem unbelievable. But the National Weather Service has confirmed that they're true.

**WHAT IS A TORNADO?**

- 6** The name “tornado” originally derived from the Latin word *tonare*, to thunder. This developed into the Spanish word *tornear*, to turn or twist. A tornado begins with the formation of a narrow line of thunderstorm clouds. A loud, thunderous roar is produced by the storm. Because a tornado is formed by rotating, or twisting, air, some people call it a twister or cyclone.
- 7** A tornado is a powerful column of winds spiraling violently around a center of atmospheric low pressure. In shape it looks like a huge black funnel hanging from a storm cloud. The narrow end sways over the earth. It is like a gigantic anteater sniffing along the ground for ants.
- 8** A tornado’s winds spiral upward and inward with tremendous speed and power. This creates a vacuum in the funnel that exerts a mighty suction effect on anything the tornado passes over. When the funnel strikes any structure, an explosive effect causes it to fly apart.
- 9** The winds inside a tornado may whirl around the center of the storm at speeds up to 400 and 500 miles an hour. The normal speed, however, is usually about 300 miles an hour. That makes these twisters the most dangerous storms known to mankind. In the Northern Hemisphere, most move eastward, rotating counterclockwise. In the Southern Hemisphere, they rotate clockwise. Tornadoes are often heralded by a rain of hailstones. Some hailstones are the size of tennis balls. The largest on record fell on Coffeyville, Kansas, in 1970. It weighed two pounds.
- 10** Not every funnel cloud becomes a dangerous tornado. Some never touch down to earth. No one knows why. Those that do may last from a few seconds to a few hours. Some disappear, only to re-form minutes later. The average twister measures 200 to 300 yards across. Some grow large enough to spin off smaller tornadoes, like storm children.
- 11** These satellite tornadoes can be fierce. Measuring from 50 yards across, they swirl violently around the main funnel. They can do terrible damage. Satellite tornadoes also often branch away. They may take separate paths through a countryside.

- 12** A tornado can form suddenly—in a minute sometimes. It can dart across the land with great speed, then abruptly vanish. In a matter of seconds, it can kill dozens of people. Each year tornadoes destroy half a billion dollars' worth of property in the United States.
- 13** A Kansas farmer named Will Keller looked directly up into a tornado from his storm cellar near Greensburg on June 22, 1928. He described a circular opening in the center of the funnel, between 50 and 100 feet in diameter. It extended straight up for half a mile. Its walls were spinning clouds. Flashes of lightning let him see into the tornado. He watched small tornadoes constantly form and break away with hissing, snakelike sounds.
- 14** Tornadoes are by far nature's most violent and damaging windstorms. No other country has as many as the United States. This is caused by the unique clash of arctic and tropical winds that occurs over the middle states. Each year approximately 850 tornadoes touch down.

From TORNADO!: NATURE'S DISASTERS by Jules Archer. Copyright © 1991 by Crestwood House. Reprinted with permission of Michael Archer.

**1. Part A**

In paragraph 8 of the passage from *Tornado!*, what does the phrase **suction effect** mean?

- A. force that avoids
- B. force that adds
- C. force that draws in
- D. force that balances

**Part B**

Which detail from paragraph 8 of the passage from *Tornado!* **best** supports the answer to Part A?

- A. "speed and power"
- B. "creates a vacuum"
- C. "tornado passes over"
- D. "strikes any structure"



**2. Part A**

In the passage from *Tornado!*, how do paragraphs 1–3 **mainly** contribute to an understanding of the topic?

- A. by introducing the unusual power of a tornado
- B. by explaining what it feels like to experience a tornado
- C. by providing a warning about areas that frequently have tornadoes
- D. by describing how different states have been affected by tornadoes

**Part B**

Which detail from the passage from *Tornado!* **best** supports the answer to Part A?

- A. “Tornadoes blasting over barnyards have stripped chickens of their feathers.” (paragraph 1)
- B. “One woman sought to hide from a tornado in a closet. . . .” (paragraph 2)
- C. “A tornado is a powerful column of winds spiraling violently around a center of atmospheric low pressure.” (paragraph 7)
- D. “A Kansas farmer named Will Keller looked directly up into a tornado from his storm cellar near Greensburg. . . .” (paragraph 13)

**3. Part A**

In the passage from *Tornado!*, what is the author's purpose in paragraph 3?

- A. to suggest that witnesses of tornadoes often exaggerate
- B. to show how unpredictable tornadoes can be
- C. to explain how tornadoes have changed over time
- D. to describe the general appearance of most tornadoes

**Part B**

Which detail from the passage from *Tornado!* **best** supports the answer to Part A?

- A. "The name 'tornado' originally derived from the Latin word *tonare*, to thunder." (paragraph 6)
- B. "In shape it looks like a huge black funnel hanging from a storm cloud." (paragraph 7)
- C. "Some hailstones are the size of tennis balls." (paragraph 9)
- D. "Not every funnel cloud becomes a dangerous tornado. Some never touch down to earth. No one knows why." (paragraph 10)

Read the article "Measuring Tornadoes." Then answer the questions.

## Measuring Tornadoes

by Chris Kridler

- 1 Though we can look at a tornado and see how big it is, we can't measure its strength by sight. Instead, scientists often use the F-scale, or **Fujita scale**, to measure how strong tornadoes are.

Rating	Original Fujita Scale		Enhanced, Operational Fujita Scale
	Characteristics	Wind Speed Estimate (sustained gust)	Wind Speed Estimate (3-second gust)
F0 gale tornado	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted roofs; damages sign boards.	40–72 mph	65–85 mph
F1 moderate tornado	Lower limit is beginning of hurricane-force winds. Peels surface off roofs; mobile homes pushed over; moving autos pushed off roads.	73–112 mph	86–110 mph
F2 significant tornado	Roofs torn off frame houses; mobile homes demolished; boxcars pushed over, large trees snapped or uprooted; light-object missiles generated.	113–157 mph	111–135 mph
F3 severe tornado	Severe damage. Roofs and some walls torn off well-constructed homes; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.	158–206 mph	136–165 mph
F4 devastating tornado	Well-constructed homes leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.	207–260 mph	166–200 mph
F5 incredible tornado	Phenomenal damage. Strong frame homes disintegrate or lifted off foundations and carried considerable distance; trees debarked.	261–318 mph	over 200 mph

- 2 The theoretical scale conceived by the late Dr. Ted Fujita of the University of Chicago would have gone up to F12—but anything above F5 was considered impossible. That is why the scale only goes up to 5.
- 3 The scale is a decent guideline to help us classify tornadoes, but it hasn't always been useful. Because ratings on the scale are determined by damage to structures, a tornado that rips through a field will not get much of a rating, no matter how big it is.
- 4 The strongest tornadoes, such as the F5 that hit the Oklahoma City area on May 3, 1999, suggested that wind estimates were too high in the scale, according to the National Weather Service. Effective Feb. 1, 2007, meteorologists began to use a new, enhanced Fujita scale. Ratings are determined with 28 damage indicators, which apply to structures from barns to shopping malls.
- 5 Only about 1 percent of all tornadoes have fallen into the most violent categories—F4 or F5. But even a weak tornado can turn over your car or damage a mobile home. That's why it's important to seek shelter in a sturdy structure when a tornado is approaching.

**Glossary**

The damage indicators are used to determine which rating on the Fujita scale (F0–F5) applies to a tornado.

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**4. Part A**

Based on the article “Measuring Tornadoes,” what does the word **enhanced** mean in paragraph 4?

- A. more detailed
- B. more interesting
- C. more readable
- D. more available

**Part B**

Which detail from paragraph 4 of the article “Measuring Tornadoes” **best** supports the answer to Part A?

- A. “Effective Feb. 1, 2007 . . . .”
- B. “. . . meteorologists began to use . . . .”
- C. “Ratings are determined . . . .”
- D. “. . . 28 damage indicators . . . .”

**5. Part A**

Based on the table showing the Fujita scale in the article “Measuring Tornadoes,” what rating would a tornado **most likely** receive if it occurred today and had 3-second wind gusts of 168 mph?

- A. F1
- B. F2
- C. F3
- D. F4

**Part B**

What event from the table would **most likely** receive the same rating as the answer to Part A?

- A. “. . . moving autos pushed off roads.”
- B. “. . . boxcars pushed over . . .”
- C. “. . . trains overturned; most trees in forest uprooted . . .”
- D. “. . . cars thrown and large missiles generated.”

Read the article “New Alert System Designed to Warn Residents of Storms and Other Dangers” about a new emergency warning system being used in Lake County, Florida. Then answer the questions.

New Alert System Designed to Warn Residents of Storms and Other Dangers

*by* Stephen Hudak

- 1** TAVARES—On the heels of a tornado-like windstorm that socked Groveland, Lake’s emergency manager has announced the launch of an improved warning system designed to issue weather alerts and other critical notices.
- 2** “This is an advance for Emergency Management to be able to notify the public of any impending danger,” said Jerry Smith, Lake’s emergency management director, who outlines the new system’s capabilities.
- 3** The new system, financed by grants totaling nearly \$130,000, allows public-safety officials to send warning and law-enforcement advisories to home phones and to mobile phones registered with the county.
- 4** Lake’s previous system could not send alerts to mobile phones.
- 5** The new alert system was online recently and dispatched tornado warnings to residents in east Lake but not in the Groveland area because of a technical glitch that has since been corrected, Smith said.
- 6** Those who received the tornado warning over the phone were told: “This is an emergency message from Lake County Emergency Management. The National Weather Service has issued a tornado warning for your area. Take immediate action and shelter. Monitor your favorite local media outlet for additional weather updates.”
- 7** Groveland was hit hard Jan. 25 by a storm that toppled trees and damaged 30 homes in an area that included Ashley Street, Catherine Lane and Stina Avenue. No injuries were reported, but property damage was estimated between \$500,000 and \$1 million.
- 8** Thomas Carpenter, emergency management operations manager, said the alerts that were dispatched were sent out by a weather station outside of

Florida and not the Melbourne station. He said the system is now tied into the Melbourne station.

- 9** The Federal Emergency Management Agency provided the grant funding for the system in the wake of deadly tornadoes that spun through Lake on Feb. 2, 2007, killing 21 people in Lady Lake and Lake Mack.
- 10** Carpenter said the telecommunications-based system is preferable to sirens, which can be ineffective in heavily wooded areas like Lake and muffled by noise-cancelling designs of some homes and new cars.
- 11** The new system can be triggered in response to threatening storms, hazardous spills, wildfires and important law-enforcement advisories. It also can help county officials warn residents in low-lying areas of flooding dangers.
- 12** Residents with mobile phones but no land line must register their mobile-phone number with the county to receive alerts.

“New Alert System Designed to Warn Residents of Storms and Other Dangers” by Stephen Hudak. Copyright © 2011 by Stephen Hudak. Published by Orlando Sentinel.



**6. Part A**

In paragraph 10 of “New Alert System Designed to Warn Residents of Storms and Other Dangers,” what does the author mean when he says the new system is **telecommunications-based**?

- A. It communicates with a specific group of people.
- B. It communicates by emphasizing the strength of a storm.
- C. It communicates through a network that has been approved by weather experts.
- D. It communicates by sending information to a device over long distances.

**Part B**

Select **one** sentence in paragraphs 1–4 of “New Alert System Designed to Warn Residents of Storms and Other Dangers” that **best** supports the answer to Part A

New Alert System Designed to Warn Residents of Storms and Other  
Dangers

*by* Stephen Hudak

1 TAVARES—On the heels of a tornado-like windstorm that socked Groveland, Lake’s emergency manager has announced the launch of an improved warning system designed to issue weather alerts and other critical notices.

2 “This is an advance for Emergency Management to be able to notify the public of any impending danger,” said Jerry Smith, Lake’s emergency management director, who outlines the new system’s capabilities.

3 The new system, financed by grants totaling nearly \$130,000, allows public-safety officials to send warning and law-enforcement advisories to home phones and to mobile phones registered with the county.

4 Lake’s previous system could not send alerts to mobile phones.

**7. Part A**

In the article “New Alert System Designed to Warn Residents of Storms and Other Dangers,” how does the information in paragraph 12 contribute to an understanding of the topic?

- A. by warning the reader that few residents are eligible to receive tornado alerts
- B. by persuading the reader to install landlines so they can promptly receive tornado alerts
- C. by showing the reader that additional tornado-alert delivery methods are needed
- D. by providing the reader with key information about a recent update to tornado alert dispatches

**Part B**

Which detail from the article “New Alert System Designed to Warn Residents of Storms and Other Dangers” **best** supports the answer to Part A?

- A. “. . . the launch of an improved warning system designed to issue weather alerts and other critical notices.” (paragraph 1)
- B. “Groveland was hit hard Jan. 25 by a storm that toppled trees and damaged 30 homes. . . .” (paragraph 7)
- C. “No injuries were reported. . . .” (paragraph 7)
- D. “. . . were sent out by a weather station outside of Florida and not the Melbourne station.” (paragraph 8)

**8. Part A**

How does the author **mainly** develop the central ideas of the article “New Alert System Designed to Warn Residents of Storms and Other Dangers”?

- A. by showing how much money is being spent on the new alert system and explaining why the money was well spent
- B. by showing that the new alert system is an improvement over the old system and explaining how the new system is being utilized
- C. by describing the benefits of the new and old alert systems and showing how the systems are similar
- D. by revealing the reactions of residents to the new alert system and explaining how pleased people are with the system

**Part B**

Which **two** details from the article “New Alert System Designed to Warn Residents of Storms and Other Dangers” **best** support the answer to Part A?

- A. “The new system, financed by grants totaling nearly \$130,000, allows public-safety officials to send warning. . . .” (paragraph 3)
- B. “Lake’s previous system could not send alerts to mobile phones.” (paragraph 4)
- C. “The new alert system was online recently and dispatched tornado warnings to residents in east Lake. . . .” (paragraph 5)
- D. “Groveland was hit hard Jan. 25 by a storm that toppled trees and damaged 30 homes. . . .” (paragraph 7)
- E. “No injuries were reported, but property damage was estimated between \$500,000 and \$1 million.” (paragraph 7)
- F. “The Federal Emergency Management Agency provided the grant funding for the system in the wake of deadly tornadoes. . . .” (paragraph 9)

9. You have now learned about tornadoes by reviewing three sources: the passage from *Tornado!*, the article “Measuring Tornadoes,” and the article “New Alert System Designed to Warn Residents of Storms and Other Dangers.”

Write an essay explaining the purpose of the information in each source. Be sure to include how data gathered by scientists and officials have changed our understanding of tornadoes. Support your answer with evidence from each source.

10. Create an objective summary of the article “Measuring Tornadoes” by dragging and dropping **five** of the sentences into the boxes in the correct order.

It can be difficult to document how much damage a tornado has caused.

The Fujita scale helps scientists to assess the force of a tornado.

Scientists need special equipment to measure the size of a tornado.

The Fujita scale is helpful, but it can sometimes be less useful if no damage to structures is sustained.

F4 and F5 tornadoes are rare, but caution is still needed even for weak tornadoes.

The original Fujita scale only went as high as F5 because scientists believed that a tornado could not be stronger.

The Fujita scale is most important in helping people to decide whether to find shelter during a tornado.

Based on problems with the original Fujita scale, scientists felt the scale needed to be revised.

1.
2.
3.
4.
5.

A black hexagonal sign with the word "STOP" written in white capital letters in the center.