Tennessee Comprehensive Assessment Program

TCAP

English Language Arts Grade 7 Item Release





Read the passage and answer the questions that follow.

Excerpt from "Reading a Mind's Memories"

by Stephen Ornes

- It may not be simple, but it may not be impossible, either. What if a brain scan could reveal your memories?
- A team of British scientists recently did just that: they used brain scans to look at spatial memory in four people. Spatial memory is the kind of memory you use to remember where you are. Rats, for example, use spatial memory to get through a maze. You use spatial memory to remember how to get from your house to school, or from class to class. People build spatial memory as they explore a new city or a new building and take in information about their surroundings.
- To store and retrieve spatial memory, humans use a part of the brain called the hippocampus. (Hippocampus is the Greek word for "seahorse," and the brain part looks a little like the animal.) You have one hippocampus on each side of your brain. To read spatial memories, the British scientists studied the hippocampi (that's the plural of hippocampus) of the participants.
- The scientists asked each participant to sit down at a computer and wander through three-dimensional rooms that appeared on the screen. These virtual rooms contained images of objects, like clocks and doors, so that the people could know where they were. Each person moved through the rooms at his or her own pace and was encouraged to explore the virtual space.
- As the people became familiar with these rooms, their brain cells were taking notes of where things were, and how to get from one point to another. ("Turn left at the door, turn right at the clock.") After perusing these rooms, the participants were instructed to go to a specific location within the rooms and stare at the floor for five seconds.
- At this point, the scientists took pictures of the subjects' brains using an instrument called fMRI. This abbreviation stands for "functional magnetic resonance imaging." Like an X-ray, fMRI allows scientists to see inside the human body. Unlike X-rays, fMRI does not require radiation. Instead, an fMRI uses a powerful magnetic field to measure brain activity. In recent years the fMRI has become very popular as a tool to study the human brain.
- As participants stared at the floor, the scientists took fMRI scans to measure brain activity and looked at specific parts of the hippocampus. They repeated this process multiple times. After a few repetitions, the scientists could identify

patterns in the subjects' brains. The researchers connected particular locations in the virtual rooms to particular areas of the brain.

- By looking at patterns on the brain scans, the scientists were able to read the spatial memory of the test subjects. If a subject were to stand in a certain corner of the virtual room, the scientists would know by observing his or her brain activity.
- This experiment shows that it is possible to use fMRIs to gather some kinds of memories from people. But not to worry for this experiment to work, the scientists had to train the test subjects with multiple repetitions. Your secret thoughts and personal memories are safe for now.
- "It is not the case that we can put someone in a brain scanner and simply read their private thoughts," says Eleanor Maguire of University College London, one of the scientists who worked on the project.

From "Reading a Mind's Memories" by Stephen Ornes from SCIENCE NEWS FOR STUDENTS, March 29, 2009. Copyright © Society for Science & the Public. All rights reserved.

TN578675_3

- **00.** What does the word <u>retrieve</u> mean as it is used in paragraph 3?
 - A. create
 - **B.** keep
 - **C.** access
 - **D.** erase

TN778698 4

- **00.** How do paragraphs 4–7 contribute to the overall development of the passage?
 - **A.** They compare what scientists learned from the brain scan to the results of other tests.
 - **B.** They explain differences between the fMRI and other tools used to study brains.
 - **C.** They describe the effects of the fMRI brain scans on the bodies of the participants.
 - **D.** They show how scientists trained the participants and conducted the study.

TN778678 4

- **00.** What is the meaning of the word instrument as it is used in paragraph 6?
 - **A.** tool used for conducting surgery
 - **B.** display for spatial navigation
 - **C.** machine used for official matters
 - **D.** device for doing scientific work

TN078701 1

- **00.** How does paragraph 2 contribute to the overall structure of the passage?
 - **A.** by emphasizing the importance of spatial memory in people's lives
 - **B.** by explaining how the study will measure spatial memory in humans
 - **C.** by describing how spatial memory functioned before the study was done
 - **D.** by suggesting that spatial memory is superior to other types of memory

TN378710_3

- **00.** What is the author's purpose for writing this passage?
 - **A.** to advise readers about participating in similar scientific studies
 - **B.** to explain how brain scan studies will benefit people in the future
 - **C.** to inform readers of the results of an interesting brain experiment
 - **D.** to raise the question of whether this type of research is appropriate

TN078689 2

- **00.** According to the passage, how were scientists able to read people's spatial memories?
 - **A.** by using computers to track their movement in a maze
 - **B.** by recognizing patterns of activity in their brain scans
 - **C.** by taking careful notes of their actions during a game
 - **D.** by recording their private thoughts during a brain scan

TN378681_4

- **00.** What is a central idea of the passage?
 - **A.** Participants in the study used spatial memory to navigate a maze.
 - **B.** Participants in the study explored rooms with images of objects such as clocks.
 - **C.** Scientists are not yet able to read the private thoughts and memories of people.
 - **D.** Scientists were recently able to identify spatial memories in human brain scans.

TN078695 1

- **00.** What is the primary way the author structures the passage?
 - **A.** by describing the study that scientists conducted and what they observed
 - **B.** by comparing the results of the study to similar studies done on rats in a maze
 - **C.** by examining data from the study and presenting a theory about spatial memory
 - **D.** by explaining problems scientists found during the study and how they were solved

TN878687 2

- **00.** Which statement is the **best** summary of the passage?
 - **A.** British scientists used powerful magnetic fields to study brain activity and reveal spatial memory. People build spatial memory as they explore new places and take in information about their new surroundings.
 - **B.** British scientists have discovered a way to read memory activity in the brain. Using an fMRI machine, the scientists were able to detect spatial memories of study participants when they remembered places they had visited earlier.
 - **C.** Participants in a recent study conducted by British scientists were asked to view and explore rooms on a computer. Afterwards, they were asked to return to a certain place in the room and stare at the floor for five seconds.
 - **D.** Scientists say that for now people should not worry about machines being able to know their private thoughts. In order for the new technology to work, the participants must first receive a large amount of special training.

TN578707_1

- **00.** What is the central idea of paragraphs 9 and 10?
 - **A.** Memory reading technology is too limited to threaten people's privacy.
 - **B.** Brain scanning instruments provide insights into people's personalities.
 - **C.** Scientists who work on the experiment can be trusted to keep personal secrets.
 - **D.** Scientists could use the technology to read thoughts if they receive special training.

Read the passage and answer the questions that follow.

Excerpt from The Mysterious Benedict Society and the Perilous Journey

by Trenton Lee Stewart

- On a bright September morning, when most children his age were in school fretting over fractions and decimal points, a boy named Reynie Muldoon was walking down a dusty road. He was an average-looking boy—with average brown hair and eyes, legs of average length, nose an average distance from his ears, and so on—and he was entirely alone. Other than a falcon soaring high over the road and a few meadowlarks keeping a low profile in the fields on either side, Reynie was the only living creature around.
- To an observer, Reynie might well have appeared lost and far from home, and in fact such an observer would have been half right. At least Reynie found it amusing to think so, for he had just determined that his present situation could be described entirely in terms of halves: he was half a day's drive from the suburbs of Stonetown, where he lived; half a mile from the nearest small town; and according to the man who had given him directions, he had another half mile to go before he reached his destination. The most important thing, however, was that it had been half a year since he had seen his three closest friends.
- Reynie squinted against the sun. Not far ahead the dirt lane went up a steep hill, just as the man in town had said it would. Beyond the hill he should find the farm. And on that farm he would find Kate Wetherall.
- Reynie walked faster, his shoes kicking up dust. To think he would see Kate any minute! And Sticky Washington—Sticky would be here by evening! And tomorrow they all would drive to Stonetown to see . . . well, to see Constance Contraire, but that was all right, too. Even the thought of Constance insulting him in rhyming couplets made Reynie happy. She might be an impudent little genius-in-the-rough, but Constance was one of the few people in the world Reynie could count as a true friend. Constance, Kate, and Sticky were like family to him. It didn't matter that he'd met them only a year ago. Their friendship had formed under extraordinary circumstances.
- 5 Reynie broke into a run.
- A few minutes later he stood at the crest of the hill with his hands on his knees, panting like a puppy, his enthusiasm having gotten the better of him. He had to laugh at himself. After all, he wasn't Kate, who probably could have run the whole way from town without breaking a sweat. (In fact, she probably could have done it running on her hands.) Reynie's gifts were not of the physical

variety—he was average in that respect, too—and he was left mopping his brow and gasping for breath as he surveyed the farm spread out before him.

So this was Kate's home: a modest farmhouse and barn, both freshly painted, with an old truck in the farmyard; a tiny white henhouse; a pen with sheep and goats milling about in it; and beyond the pen, an expanse of rolling pastures. Across the lane from the buildings was an orchard, a few of its trees studded with fat red apples, though most of the fruit was undeveloped and scarcely visible. The farm still needed a lot of work, Kate had said in one of her letters. And that was almost all she'd said. Her letters were never what you would call wordy, though they were always cheerful. Rather too cheerful, actually—they sometimes made Reynie feel as if he were the only one who missed his friends.

Just as Reynie started down the hill, a bell sounded among the farm buildings below. He scanned the area hopefully for Kate but saw only the goats and sheep filing out of their pen, which must have been left open so they could graze in the pastures. Reynie drew up short in surprise. He could have sworn the last goat to leave the pen had turned around and nudged the gate closed.

Reynie's brow wrinkled. That conscientious goat was not the first unusual thing he'd seen this morning. He was reminded of something else—something curious to which, in his excitement, he hadn't given much thought until now. Reynie shaded his eyes and searched the sky. There, circling quite low overhead, was the falcon he had noticed earlier. He could just make out its facial markings, which resembled a black cap and long black sideburns. Reynie didn't presume to know much about birds (though in fact he knew more than most people), but he felt sure that this was a peregrine falcon—and in this region, at this time of year, peregrine falcons were very rare indeed.

10 Reynie grinned and hurried downhill to the farmyard. Something odd was going on, and he couldn't wait to find out what it was.

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TN745804_1

- **00.** What does the word <u>impudent</u> mean as it is used in paragraph 4?
 - A. sassy and rude
 - **B.** shy and quiet
 - **C.** crafty and tricky
 - **D.** pleasant and kind

TN105842 2

- **00.** In paragraph 6, what does the phrase "without breaking a sweat" mean?
 - **A.** in cool weather
 - **B.** with little effort or strain
 - **C.** in the safest way
 - **D.** with some encouragement

TN415898 2

- **00.** What is a central idea of the passage?
 - **A.** Reynie is an average looking boy with brown hair.
 - **B.** Reynie is eager to get together with his friends.
 - **C.** Reynie knows more about birds than most people.
 - **D.** Reynie enjoys traveling and seeing new places.

TN815906 1:4

00. The following item has two parts. Answer Part A and then answer Part B.

Part A

In paragraph 2, Reynie thinks about the setting as he walks along. What do Reynie's thoughts reveal about him?

- **A.** He is clever and pays attention to details.
- **B.** He gets bored easily and loses interest.
- **C.** He is starting to feel homesick and lonely.
- **D.** He has gotten lost and does not know what to do.

Part B

Which detail from the passage supports the correct answer to Part A?

- **A.** "On a bright September morning, when most children his age were in school fretting over fractions and decimal points, a boy named Reynie Muldoon was walking down a dusty road." (paragraph 1)
- **B.** "The most important thing, however, was that it had been half a year since he had seen his three closest friends." (paragraph 2)
- **C.** "And tomorrow they all would drive to Stonetown to see . . . well, to see Constance Contraire, but that was all right, too." (paragraph 4)
- **D.** "Reynie didn't presume to know much about birds (though in fact he knew more than most people), but he felt sure that this was a peregrine falcon—and in this region, at this time of year, peregrine falcons were very rare indeed." (paragraph 9)

TN085833_1

- **00.** What is the meaning of the word <u>surveyed</u> as it is used in paragraph 6?
 - A. viewed
 - **B.** questioned
 - **C.** measured
 - **D.** approached

TN925934 2:4

00. The following item has two parts. Answer Part A and then answer Part B.

Part A

What is revealed through the narrator's comparison of Reynie and Kate in paragraph 6?

- **A.** Unlike Kate, Reynie lacks a remarkable talent.
- **B.** Reynie and Kate have different talents or abilities.
- C. Reynie feels competitive with Kate and wants to win.
- **D.** Kate tends to be a showoff, but Reynie doesn't mind.

Part B

Which detail from paragraph 6 supports the correct answer to Part A?

- **A.** ". . . he stood at the crest of the hill with his hands on his knees, panting like a puppy."
- **B.** "He had to laugh at himself."
- C. ". . . she probably could have done it running on her hands."
- **D.** "Reynie's gifts were not of the physical variety."

TN925817_2:1

00. The following item has two parts. Answer Part A and then answer Part B.

Part A

In paragraph 9, what does the author suggest about Reynie by stating that his "brow wrinkled"?

- **A.** He was bored.
- **B.** He was puzzled.
- **C.** He was nervous.
- **D.** He was annoyed.

Part B

Which phrase from paragraph 9 supports the correct answer to Part A?

- **A.** "something curious"
- B. "in his excitement"
- **C.** "shaded his eyes"
- **D.** "felt sure that"

TN735915_1

- **00.** In paragraphs 8 and 9, how do the actions of the goat and the peregrine falcon affect the plot?
 - **A.** They suggest that something strange is happening at the farm.
 - **B.** They emphasize how far Reynie has traveled from his home.
 - **C.** They highlight differences between wild animals and farm animals.
 - **D.** They reveal that Reynie's arrival at the farm is unexpected.

TN155925_1

- **00.** In paragraphs 8–10, what does Reynie's reaction to the goat and the peregrine falcon reveal about him?
 - **A.** He is enthusiastic about the possibility of a mystery to solve.
 - **B.** He is relieved that he has finally reached Kate's home.
 - **C.** He is worried that something bad is about to happen.
 - **D.** He is unfamiliar with ordinary aspects of life on a farm.

TN415893_3,5

- **00.** Which **two** statements, taken together, provide the **best** summary of the passage?
 - **A.** Reynie should have been in math class, but instead he was walking along a road far from his town.
 - **B.** Reynie was amused to realize that his situation could be described in terms of halves.
 - **C.** Reynie was on his way to his friend Kate's home and was excited about seeing her and their friends, Constance and Sticky.
 - **D.** From a hilltop, Reynie saw a farm with a house and barn that were freshly painted.
 - **E.** As Reynie neared Kate's house, the actions of a goat and a falcon aroused his curiosity.

TN035857 3:2,4

00. The following item has two parts. Answer Part A and then answer Part B.

Part A

Which sentence **best** expresses a theme of the passage?

- **A.** Having friends makes a person feel more confident.
- **B.** Making friends is the best way to learn about yourself.
- **C.** Friends are important even when you're apart from them.
- **D.** The best friends are people who think and act a lot like you.

Part B

Which **two** details **best** develop the correct answer to Part A?

- **A.** Reynie was not in school like most children his age.
- **B.** Reynie thought about how long it had been since he saw his close friends.
- **C.** Constance insulted Reynie with rhyming couplets.
- **D.** For Reynie, Constance, Kate, and Sticky were like family.
- **E.** Reynie had average looks and wasn't a very good runner.

Metadata- English

Passage

Passage UIN	Grade	Passage Title	Lexile Level	Word Count
TN678667	7	from "Reading a Mind's Memories"	1030L	550

Metadata Definitions:

Passage UIN	Unique letter/number code used to identify the passage(s) that go with this item.		
Grade	Grade level or Course.		
Passage Title	Title of the passage(s) associated with this item.		
Lexile Level	Readability level for passage.		
Word Count	Count of words in the passage.		

Items

Page Number	UIN	Grade	Item Type	Key	DOK	TN Standards
3	TN578675	7	MC	С	2	7.L.VAU.4a
4	TN778698	7	MC	D	2	7.RI.CS.5
5	TN778678	7	MC	D	2	7.L.VAU.4a
6	TN078701	7	MC	А	2	7.RI.CS.5
7	TN378710	7	MC	С	2	7.RI.CS.6
8	TN078689	7	MC	В	2	7.RI.KID.1
9	TN378681	7	MC	D	2	7.RI.KID.2
10	TN078695	7	MC	А	2	7.RI.CS.5
11	TN878687	7	MC	В	2	7.RI.KID.2
12	TN578707	7	MC	А	2	7.RI.KID.2

Metadata Definitions:

UIN	Unique letter/number code used to identify the item.		
Grade	Grade level or Course.		
Item Type	Indicates the type of item. MC= Multiple Choice; MS= Multiple Select		
Кеу	Correct answer. This may be blank for constructed response items where students write or type their responses.		

Metadata- English

Passage

Passage UIN	Grade	Passage Title	Lexile Level	Word Count
TN621409	7	from The Mysterious Benedict Society and the Perilous Journey	1000L	805

Metadata Definitions:

Passage UIN	Unique letter/number code used to identify the passage(s) that go with this item.		
Grade	Grade level or Course.		
Passage Title	Title of the passage(s) associated with this item.		
Lexile Level	Readability level for passage.		
Word Count	Count of words in the passage.		

Items

Page			Item			
Number	UIN	Grade	Type	Key	DOK	TN Standards
15	TN745804	7	MC	А	2	7.L.VAU.4a
16	TN105842	7	MC	В	2	7.L.VAU.4a
17	TN415898	7	MC	В	2	7.RL.KID.2
18	TN815906	7	Composite	A; D	2	7.RL.KID.1
19	TN085833	7	MC	Α	2	7.L.VAU.4a
20	TN925934	7	Composite	B; D	2	7.RL.KID.3
21	TN925817	7	Composite	B; A	2	7.L.VAU.4a
22	TN735915	7	MC	А	2	7.RL.KID.3
23	TN155925	7	MC	Α	2	7.RL.KID.1
24	TN415893	7	MS	C,E	2	7.RL.KID.2
25	TN035857	7	Composite	C; B,D	3	7.RL.KID.2

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