

Read the passage from the nonfiction book *The Dead Can Speak: Studying Mummies in the Arctic*.

Passage from
***The Dead Can Speak:
Studying Mummies in the Arctic***

by Marcia Amidon Lusted

The First Pieces of the Puzzle

1 Beattie and his team were surprised at how thin Torrington's body was. They carefully cut into the mummy to study it. They realized the sailor had been very sick before he died.

2 Torrington's lungs were black and scarred, and his heart looked damaged. Beattie took samples of the mummy's bones, fingernails, hair, and other body parts.

3 When they were finished, the team put Torrington's clothes back on. Then they placed him back in the coffin and carefully lowered the coffin into the hole in the frozen ground. The researchers stood silently around the grave for quiet thoughts and prayers. Finally they covered the coffin with soil and rocks.

4 The team used their photographs and sketches to make the grave look exactly as it had before. As Beattie stood at the grave, he looked out over the water and pictured the two Franklin Expedition ships setting sail away from Beechey Island. He imagined how the sailors had felt when they buried John Torrington—before they knew how terrible their own deaths would be.

Back at the Lab

5 Beattie flew home to his laboratory to study the samples from the ice mummy. He discovered that Torrington probably died from an illness that had settled in his lungs, which had already been damaged by coal smoke or tobacco smoke. But Beattie's most important discovery was that the body had an unusually high level of lead, a type of metal.

6 If a person swallows lead, it can poison the body and make it weaker. Lead also makes any illness much worse. Beattie had a hunch that this was the reason why the Franklin Expedition had failed. He had to figure out how Torrington's body ended up with so much lead in it.

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Now read the passage from the nonfiction book *The Shackleton Expedition: One of the World's Greatest Survival Stories*.

Passage from
***The Shackleton Expedition:
One of the World's Greatest Survival Stories***

by Laura T. Johnson

Rescue Attempts

1 The three men were totally exhausted at this point, but they immediately set out to rescue the rest of the crew. That very night, one of the men went by whaling boat to pick up the two men waiting on the south side of South Georgia Island. Two days later, Shackleton and the other two men headed for Elephant Island on a ship named *Southern Sky* to rescue the twenty-two crewmen who had been left there. But the *Southern Sky* wasn't sturdy enough to cut through the ice that still surrounded Elephant Island. That rescue attempt failed.

2 A second rescue ship also had to turn back because of the ice. The third attempt to reach Elephant Island in a different boat failed when the boat's engine broke. Planning and carrying out these rescue attempts took lots of time. Months passed. Shackleton must have been very worried about his stranded men. Were they still alive? He didn't know but he refused to give up on them.

Reading Comprehension

Now answer questions 1 through 5 by filling in the circle next to the best answer. The questions relate to *The Dead Can Speak: Studying Mummies in the Arctic* and *The Shackleton Expedition: One of the World's Greatest Survival Stories*.

1. Read these sentences from paragraph 1 of *The Shackleton Expedition: One of the World's Greatest Survival Stories*.

But the *Southern Sky* wasn't sturdy enough to cut through the ice that still surrounded Elephant Island. That rescue attempt failed.

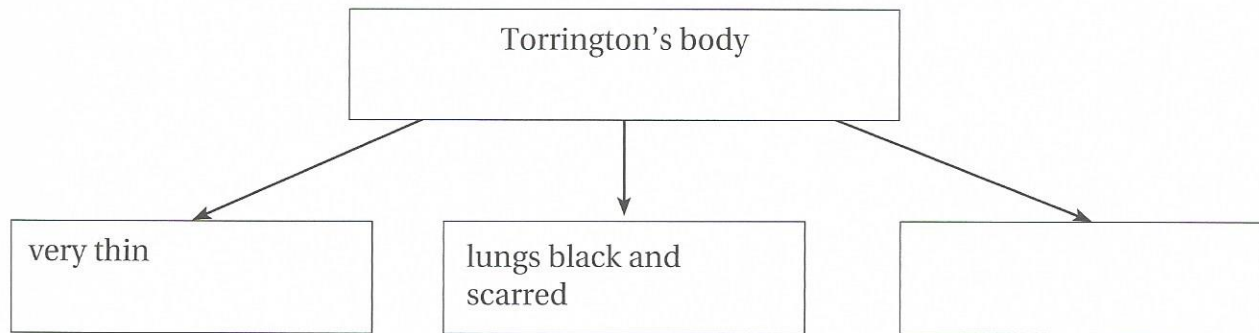
What is the meaning of *sturdy*?

- A strongly built
- B unusually rare
- C not recently made
- D quickly constructed

2. What is the root word in *researchers*?

- A sea
- B search
- C ear
- D arch

3. The chart below shows two details about Torrington's body that Beattie noticed when he and his team examined it. First, read the chart.



What belongs in the empty box in the chart?

- A bones broken
- B no fingernails
- C heart damaged
- D hair mostly gray

4. In the second passage, the author emphasizes that Shackleton is

- A cautious.
- B observant.
- C determined.
- D experienced.

5. Which type of organization is used in both passages?

- A cause and effect
- B order of importance
- C compare and contrast
- D chronological sequence

Read the passage from the nonfiction book *Two of a Kind: The Special Connection Between Identical Twins*. Then answer questions 1 through 6.

Passage from
***Two of a Kind: The Special Connection
 Between Identical Twins***

by Allen Mogol

What Makes Identical Twins So Special

1 There are two explanations for why identical twins share a special connection. Each explanation comes from a different branch of science. One answer has to do with **biology**, the study of living things. The other answer has to do with **psychology**, the study of the mind.

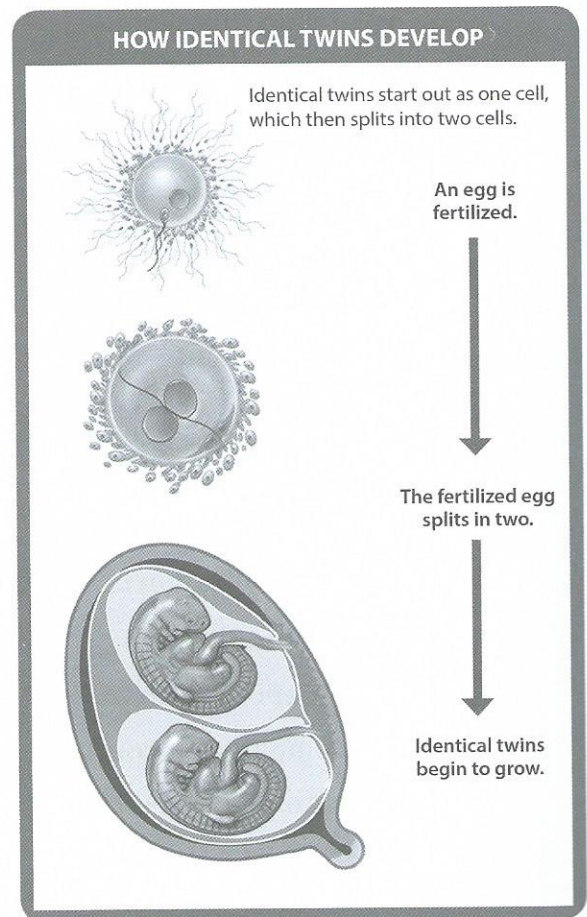
The Biology

2 Identical twins come from a single egg that has been fertilized with a single sperm. At an early stage in its development, the fertilized egg splits in two. The two halves then develop into two babies with the same **genes**, the parts of cells that determine things like eye color and whether hair is straight or curly. Genes also influence such things as whether people are athletic or artistic. Since the twins came from a single cell, they have many traits in common, including the way they look and sometimes act.

The Psychology

3 Twins often think alike in ways that other brothers and sisters don't. For example, if two sisters decided to build a birdhouse together, they would have a lot of planning to do. They would have to discuss what kind of birdhouse to build, decide who would be in charge of getting the materials, and talk about who would do the hammering and painting. But when identical twins decide to work together on something, the situation can be quite different.

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- 4 Often, when identical twins decide to work together on a project, they “just know” who’s going to do what. They don’t have to talk about it, or even think about it. Each twin can look at the other and know exactly what his or her sibling has in mind. People who are not twins often find it difficult to understand how this happens.

Reading Comprehension

Now answer questions 1 through 6 by filling in the circle next to the best answer.

1. Read these sentences from paragraph 2 of the passage.

The two halves then develop into two babies with the same genes, the parts of cells that determine things like eye color and whether hair is straight or curly. Genes also influence such things as whether people are athletic or artistic.

Which word is a synonym for *influence*?

- A affect
- B fertilize
- C rehearse
- D shuffle
2. What is the correct way to divide *situation* into syllables?
- A si-tua-tion
- B si-tu-ation
- C sit-ua-tion
- D sit-u-a-tion
3. Which information would have to be included in a summary of the passage?
- A Biology is the study of living things.
- B Identical twins share genetic traits.
- C Brothers and sisters do not always think alike.
- D Genes determine whether hair is curly or straight.
4. Which sentence from the passage BEST describes what the diagram shows?
- A There are two explanations for why identical twins share a special connection.
- B At an early stage in its development, the fertilized egg splits in two.
- C Since the twins come from a single cell, they have many traits in common.
- D Twins often think alike in ways that other brothers and sisters don't.

5. You can tell from the diagram that

- A just one sperm fertilizes the egg.
- B one twin may be larger than the other.
- C it is not very rare for twins to develop.
- D eggs split in two after just a single day.

6. What can you infer about identical twins from the information in the passage?

- A They express identical likes and dislikes.
- B They tend to dislike doing group projects.
- C They process information in the same way.
- D They are usually misunderstood by others.

Now read the passage from the nonfiction book *Contagious Yawning*. Then answer questions 7 through 12.

Passage from *Contagious Yawning*

by Alexis Burling

The Science of Yawning

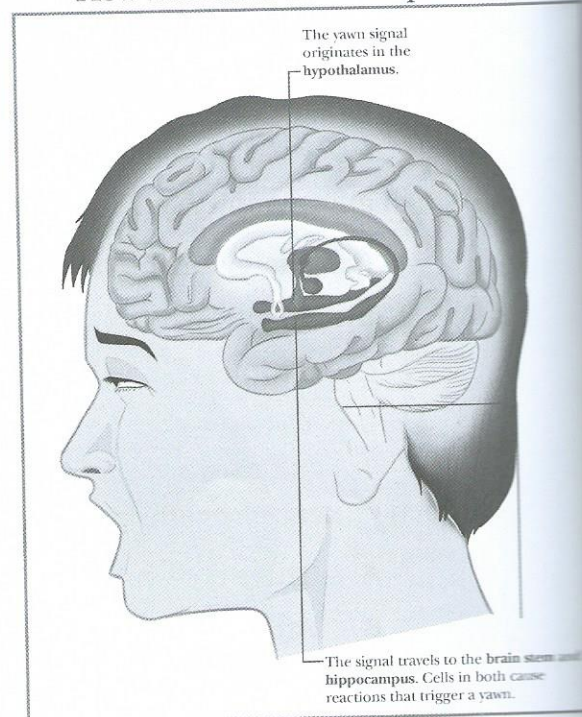
1 Nearly all **vertebrates** yawn—mammals, birds, reptiles, and even fish. But before asking questions about why this happens, including why yawning is “catching” for some species and not others, it’s important to understand how a yawn happens.

2 When you yawn, you open your mouth to an “oh” shape, lowering your jaw and chin. Then you inhale, taking as much air as possible into your lungs. You might tilt your head back slightly. Maybe you stretch your arms over your head or out to your sides in different directions.

3 At the same time your respiratory system is taking in air, your abdominal muscles flex automatically and your **diaphragm contracts**, or tightens. When you have taken in as much air as you can handle and your lungs are at full capacity, you exhale the rest of your breath out through your mouth. You might even make a sound.

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How the Brain Makes People Yawn



- 4 But yawning isn't as simple as needing air, robotically inhaling, and breathing out. As with most functions taking place in your body, the action starts in the brain.
- 5 Right before you yawn, your brain receives a yawn "signal" that originates from the control center for your body's **autonomic**, or involuntary, nervous system. This message travels to other key cells in your brain, causing muscles in your jaw, face, and throat to contract, triggering a yawn.

Reading Comprehension

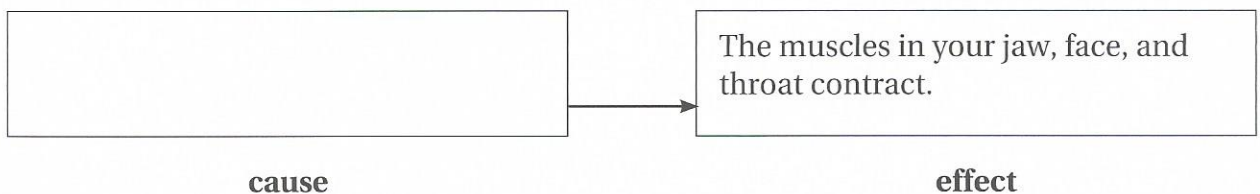
Now answer questions 7 through 12 by filling in the circle next to the best answer.

7. Read this sentence from paragraph 5 of the passage.

Right before you yawn, your brain receives a yawn "signal" that originates from the control center for your body's autonomic, or involuntary, nervous system.

What does the word *originates* mean?

- A starts
- B remembers
- C blinks on and off
- D becomes confused
8. Which syllable in *capacity* is spoken with extra stress?
- A the first syllable
- B the second syllable
- C the third syllable
- D the fourth syllable
9. Read the cause-and-effect chart below.



Which sentence belongs in the empty box in the chart?

- A Your lungs take in as much air as they can.
- B Your brain receives a signal to make you yawn.
- C The people around you catch your need to yawn.
- D The message travels to other key cells in the brain.

10. Details in paragraph 5 support which idea about yawning?

- A Yawning is catching in humans.
- B The lungs are involved in yawning.
- C Yawning involves breathing in and out.
- D The brain sets off the action of yawning.

11. Which phrase describes how paragraph 3 is MAINLY organized?

- A a cause followed by its effects
- B a problem followed by a solution
- C a comparison between two things
- D a series of events given in sequence

12. What is the purpose of the diagram?

- A to show the size of the brain
- B to teach the parts of the brain
- C to show the brain's role in yawning
- D to explain the effort it takes to yawn

Reading Comprehension

Now answer questions 13 through 15 by filling in the circle next to the best answer.
These questions relate to both passages.

13. Based on the information in both passages, what can you conclude?

- A The body has significantly more power than the mind.
- B A person's nervous system controls that person's actions.
- C A human being's actions depend wholly upon his or her genes.
- D The brain influences how people think and how their bodies function.

14. Which statement about the two passages is true?

- A Both passages are persuasive.
- B Both passages are informative.
- C The first passage is persuasive and the second is informative.
- D The first passage is informative and the second is persuasive.

15. What important idea do the two passages share?

- A** Simple actions cannot be explained.
- B** Human traits are determined even before birth.
- C** Genes are responsible for how people develop.
- D** Biology answers many questions about behavior.

Read the fiction passage “The Vegetable War” and the fiction passage “The Goofy Gourmet.” Then answer questions 1 through 5.

The Vegetable War

1 While Mrs. Wiley roamed the aisles of the supermarket, she sighed in frustration as she thought about yesterday’s battle with Naomi. Her daughter just refused to eat any vegetables, even though the finicky eater should be having four servings a day. Mrs. Wiley laughed at the thought. She considered herself fortunate if she could get Naomi to consume even one serving. Why, just the sight of a vegetable on her plate would start a war between mother and daughter. As Mrs. Wiley reached for a jar of pasta sauce, an idea took root.

2 “Great meal, Mom!” Naomi called as she placed her plate in the sink and took off to finish her homework. Not detecting any yucky vegetables, she had eaten every morsel of food.

3 Mrs. Wiley smiled as she and her husband lingered at the table to finish their coffee. “Well, that was a pleasant meal for a change,” he remarked. “But why are you smiling?”

4 “Naomi ate all her vegetables,” she announced.

5 “But how?” inquired Mr. Wiley. “I didn’t see any vegetables on her plate.”

6 “There were shredded carrots in her smoothie, pureed spinach in the sauce . . .”

7 “And pumpkin in the pumpkin muffins,” Mr. Wiley finished, chuckling. “I get it.”

8 “Tomorrow, I think I’ll put grated vegetables in the meatloaf,” reflected Mrs. Wiley.

The Goofy Gourmet

1 Jackson smiled while putting the finishing touches on the latest installment of his column “The Goofy Gourmet” for the school newspaper. His motto was “I’ll eat it or I’ll quit.” Readers would send in suggestions for weird foods for him to eat and then write about in his column. He vowed to quit the column if someone ever suggested a food that he refused to try. The food had to be weird, but it couldn’t be unhealthy. Chocolate cricket chip cookies? They had a nice crunchy texture. Fried green tomatoes? He loved anything fried, even unripe tomatoes. Smoked eel? Sure it was a bit greasy, but the salty delicacy had a nice smoky flavor.

2 This column was about alligator on a stick. Jackson wrote, “Chunks of deep fried alligator tail are served on a ten-inch wooden skewer. They’re battered in corn meal with seasonings. I found it a bit chewy, but this reptile is actually yummy. The large lizard tastes a lot like chicken!”

3 Finished with his column, the intrepid reporter read his emails for the next wacky food suggestion. Jackson’s face instantly fell, almost to the ground. *Brussels sprouts*? Even the Goofy Gourmet had his limits. Who would suggest such a thing? Jackson looked closer at the email address. The suggestion came from his merciless mother.

Reading Comprehension

Now answer questions 1 through 5 by filling in the circle next to the best answer.

1. Read this sentence from paragraph 1 of “The Vegetable War.”

Her daughter just refused to eat any vegetables, even though the finicky eater should be having four servings a day.

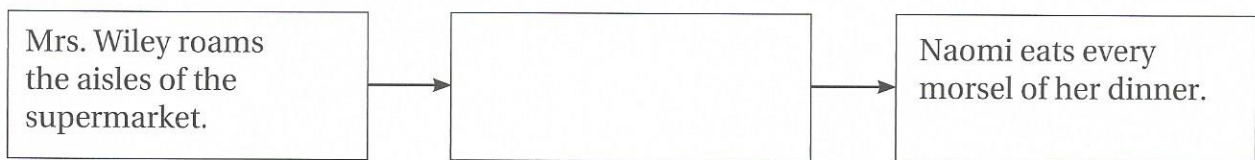
A synonym for *finicky* is

- A fussy.
- B frisky.
- C flashy.
- D funny.

2. What does the suffix mean in *merciless*?

- A able
- B causing
- C without
- D resembling

3. The chart below shows events from “The Vegetable War” in sequence. First, read the chart.



Which event belongs in the empty box in the chart?

- A Naomi battles with her mother over eating vegetables.
- B Mrs. Wiley tells how she hid vegetables in Naomi’s food.
- C Mr. and Mrs. Wiley linger at the table to finish their coffee.
- D Mrs. Wiley gets an idea while reaching for a jar of pasta sauce.

4. Which word BEST describes “The Goofy Gourmet”?

- A critical
- B playful
- C serious
- D touching

5. Which statement is true about the mothers in the two passages?

- A** Both mothers force their children to eat healthy foods.
- B** Both mothers give in to their children's wishes too easily.
- C** Naomi's mother is sneaky, whereas Jackson's mother is direct.
- D** Naomi's mother is strict, whereas Jackson's mother is easygoing.

Read the fiction passage “Zander’s Transformation.” Then answer questions 1 through 6.

Zander’s Transformation

1 Zander walked hesitantly into the medical center. Today the doctors would do the procedure, and tomorrow he would look like everyone else. His mother told him that he should be thankful to live in 2174, when medicine had advanced to such a level that his condition could be treated. Of course, if it hadn’t been for all the pollution on earth over the last few centuries, there would be no need for the procedure. It was the pollutants that had caused genetic differences such as his.

2 “Zander, are you ready for your transformation—your change?” Dr. Vega asked as she examined her patient. Instead of skin, Zander’s body sported a soft, pink fiberlike covering.

3 “I guess so, doctor,” he responded uncertainly. “But it’s been kind of cool looking different. Some of my friends look very different too.”

4 The doctor smiled at Zander. “I’m sure you’ll be happy with the results. As I told you, the procedure is quite simple. We’ve taken some stem cells and converted them into skin cells. All we have to do is inject you with the skin cells that you lack. By tomorrow you should have flesh covering your body. You just have to stay here overnight so we can monitor you. Any questions?”

5 “No. I’m as ready as I’ll ever be.”

6 “Good, this medicine will help you sleep now. When you wake up tomorrow, you’ll be a new boy,” Dr. Vega said confidently. And that’s the last thing Zander heard before falling into unconsciousness.

7 The next thing he knew, Zander heard his doctor’s voice urging him awake. She sounded somewhat anxious, which seemed odd. Zander looked up at Dr. Vega’s concerned face. He felt a bit stiff but not bad. Perhaps the new skin was tighter than his former covering.

8 “Zander, there’s been a slight problem,” the doctor began to explain. “It seems that the stem cells weren’t converted into skin cells after all. They were turned into a very different type of cell.”

9 Zander glanced down at the hard ivory material that now covered his body. He certainly didn’t look like everyone else.

10 “Awesome!” he exclaimed.

Reading Comprehension

Now answer questions 1 through 6 by filling in the circle next to the best answer.

1. Read this sentence from paragraph 4 of the passage.

By tomorrow you should have flesh covering your body. You just have to stay here overnight so we can monitor you.

A synonym for *monitor* is

- A snare.
 B ignore.
 C restrict.
 D observe.

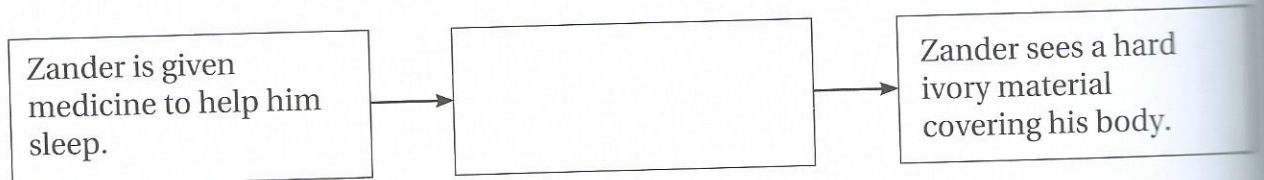
2. Read this sentence from paragraph 6 of the passage.

And that's the last thing Zander heard before falling into unconsciousness.

What does the prefix mean in *unconsciousness*?

- A in
 B not
 C after
 D from

3. The chart below shows events from the passage in sequence. First, read the chart.



Which event belongs in the empty box in the chart?

- A Zander walks into the medical center.
 B Zander says it is cool to look different.
 C Dr. Vega tells Zander of a slight problem.
 D Dr. Vega explains the procedure to Zander.

4. Which is a theme of the passage?

- A The future will be exciting.
- B It's good to set your goals high.
- C It's good to value being different.
- D Doctors need to be careful about details.

5. Based on the information in the passage, what will MOST LIKELY happen after the passage ends?

- A Dr. Vega will plan more operations to achieve the same result.
- B Zander will complain about his treatment at the hospital.
- C Dr. Vega will try to convince Zander to leave the hospital right away.
- D Zander will try to convince his family and doctor to let him keep his new covering.

6. What is the genre of this passage?

- A fable
- B fairy tale
- C realistic fiction
- D science fiction

Now read the nonfiction passage "From Cells to Organ Systems." Then answer questions 7 through 12.

From Cells to Organ Systems

1 Every living thing is made up of structures called **cells**. The cell is the basic unit of life. A human body is made up of over 75 trillion cells! There are many different types of cells. Each type of cell is different and performs a different function, or normal use.

2 Think about the specialized jobs people have. There are teachers, doctors, farmers, bus drivers, and more. Each of these jobs has a part in helping our society run smoothly. In a similar way, each single cell has a specialized job in your body. Cells might have the job of helping you move or helping you digest food. It is the teamwork among all of the cells with different functions that keeps your body running smoothly.

3 All cells start out as identical cells called stem cells. Each stem cell has the potential to become a specialized cell, one designed to perform a particular task in the body. A stem cell changes to suit its specific job. Each specialized cell has a structure that helps it perform its job. The chart below shows some specialized cells and their functions in the body.

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Specialized Cells	Structure	How Structure Aids Function
nerve cells	long, delicate branches	allows cells to send and receive signals to and from the central nervous system
skin cells	thin, flat, layered structure	forms a barrier without gaps to keep moisture in and harmful agents out
muscle cells	long, thin structure	allows cells to change size a great deal when they contract
red blood cells	doughnut shape	provides a large surface area to carry oxygen
bone cells	framework of hard material to hold cells together	provides strength and support

- 4 Few individuals do their work completely alone. For instance, a hospital relies on the work of nurses, doctors, and other medical staff to make people healthy. Likewise, cells work together to perform a specific task. A group of similar cells working together on the same job is called **tissue**. Blood is a tissue in liquid form. It works to carry oxygen, food, and waste throughout the body.
- 5 Tissues can do only so much on their own. Just like cells, they count on teamwork. Different tissues work together to form **organs**. For example, the heart is an organ made up of muscle tissue, nerve tissue, and blood tissue. In turn, several organs working together form an **organ system**. For example, your nervous system includes the brain and spinal cord. From the smallest cells to organ systems, all of the parts of your body have a role in keeping you alive.

Reading Comprehension

Now answer questions 7 through 12 by filling in the circle next to the best answer.

7. Read these sentences from paragraph 2 of the passage.

Think about the specialized jobs people have. There are teachers, doctors, farmers, bus drivers, and more.

Which phrase gives the best definition of *specialized*?

- A lasting for a limited time
- B done for a particular purpose
- C not able to keep one's interest
- D producing a great deal of profit

8. Which syllable in *identical* has a long vowel sound?

- A first syllable
- B second syllable
- C third syllable
- D fourth syllable

9. According to the chart, how does the structure of red blood cells help them do their job?

- A It has a doughnut shape.
- B It allows cells to change size a great deal.
- C It allows cells to receive and send signals.
- D It provides a large surface to carry oxygen.

10. Which type of specialized cells shown on the chart would be found in great quantity in the brain?

- A skin cells
- B bone cells
- C nerve cells
- D muscle cells

11. Which is a main idea of this passage?

- A Your body parts work as a team to keep you functioning properly.
- B Cells are by far the most important organ system within the human body.
- C Tissues are not important because they can only do so much on their own.
- D Because of its many different parts, the body does not always work efficiently.

12. This passage is the type of nonfiction meant to

- A relate a story.
- B solve a problem.
- C explain information.
- D persuade the reader.

Reading Comprehension

Now answer questions 13 through 15 by filling in the circle next to the best answer. These questions relate to both passages.

13. Reread paragraph 3 of the second passage. Based on this information, why might the doctor in the first passage use stem cells for Zander's procedure?

- A They are the easiest cells to obtain.
- B They can be turned into any kind of cell.
- C They are long and thin and contract easily.
- D They are never rejected by the human body.

14. Based on details in the chart in "From Cells to Organ Systems," what type of cells were injected into Zander by mistake?

- A bone cells
- B nerve cells
- C muscle cells
- D red blood cells

15. Which statement BEST describes both passages?

- A The first passage is exciting, whereas the second passage is amusing.
- B The first passage is inspiring, whereas the second passage is exciting.
- C The first passage is amusing, whereas the second passage is interesting.
- D The first passage is interesting, whereas the second passage is inspiring.