

Name Date

The Science of Summer Fun May 4, 2018

Use this week's cover story to answer the questions. For each question, circle the letter next to the best answer.

Define Words and Phrases (RI.5.4; RI.6.4)

1. What is the meaning of the word *branch* as is it used in paragraph 2?
- A. a particular area of study or knowledge
 - B. a section of a family
 - C. the members of an organization
 - D. a shop or office representing a large company

Make Connections (RI.5.3; RI.6.3)

2. Designers add curves to waterslides for all the following reasons, except
- A. to create a zero-g-force moment.
 - B. to get riders to the top faster.
 - C. to change a rider's direction.
 - D. to cause riders to accelerate.

Read for Detail (RI.5.1; RI.6.1)

3. What would happen if a slide's slope were made steeper?
- A. The rider would go more slowly.
 - B. The rider would experience zero-gravity.
 - C. The rider would stop.
 - D. The rider would go faster.

Identify Claims and Evidence (RI.5.8; RI.6.8)

4. The author supports the claim that there have been major innovations in waterslide technology by describing
- A. the use of new tools to create waterslides.
 - B. the history of waterslides and roller coasters.
 - C. the role of gravity, friction, and acceleration in waterslide design.
 - D. how to use magnets to pull riders down a slope.

Understand Author's Purpose (RI.5.6; RI.6.6)

5. The author included the last section, titled "Slide Technology," to
- A. describe how technological advances could affect waterslide designs in the future.
 - B. convince readers to learn to use 3D printers.
 - C. show how waterslide designs have changed over the years.
 - D. compare 3D printers with others tools used in waterslide design.

Identify Central Idea (RI.5.2; RI.6.2)

6. What could be another title for the section "A Formula for Fun"?
- A. Zero In on Zero Gravity
 - B. Waterslide Physics
 - C. All About Airplanes
 - D. Drawing Waterslides

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Read for Detail (RI.5.1; RI.6.1)

- 7.** Which of the following statements is *not* true?
- A. Designers use 3D printers to create high-tech models of waterslides.
 - B. Magnets pull riders uphill on some waterslides.
 - C. Friction reduces the stickiness between objects.
 - D. Gravity is the force that pulls riders down a slide.

Define Words and Phrases (RI.5.4; RI.6.4)

- 8.** According to Ray Smegal, “When we design slides, we’re trying to shape the experience to be as fun and safe as possible.” What is another way to say *shape*?
- A. deny
 - B. break
 - C. make
 - D. confuse

Identify Central Idea (RI.5.2; RI.6.2)

- 9.** The article is mostly about
- A. how to change your speed on a waterslide.
 - B. different ways to have fun during the summer.
 - C. innovations in waterslide technology.
 - D. the role science plays in waterslide design.

Understand Author’s Purpose (RI.5.6; RI.6.6)

- 10.** Which of the following sentences in the article reveals the author’s point of view?
- A. This year, more than 85 million people around the world will visit water parks.
 - B. But all slides will continue to rely on basic physics—and thrills—for years to come.
 - C. In scientific terms, you accelerate not only when you speed up but also when you slow down or make a turn.
 - D. The steeper the slide, the faster you go.

Bonus

What role does science play in making waterslides thrilling and safe? Include at least two pieces of relevant textual evidence. Write your response on a separate sheet of paper.