Quick Check

The Balloon Brothers

Name	Date	
Instructions: Read each guestion carefully and choose the best answer.		

- **1.** When something is **immersed**, it is _____.
 - A combined with other substances and burned to make smoke
 - B placed into a fluid or substance that surrounds it completely
 - © mixed with helium to help make it float
 - ① covered completely with paper or with cloth to create a seal

- **2.** What is the author's purpose for writing this book?
 - A to persuade the reader that traveling by hot-air balloon is not as dangerous as it used to be and should be a major mode of transportation
 - B to inform and entertain the reader with comical stories about the first hot-air balloon flights
 - © to persuade the reader that the work of Jacques Charles was more advanced than the work of the Montgolfier brothers
 - (D) to inform the reader about the Montgolfier brothers' work and impact on the history of air travel

Quick Check (continued)

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- **3.** Why were animals the first hotair balloon passengers instead of humans?
 - A King Louis requested that the animals be used instead of humans.
 - B The Montgolfier brothers thought it would be comical and draw more people to watch.
 - © The dangers of flight were still unknown.
 - ① They could not find any humans to volunteer to be passengers.

- **4.** Which of the following events occurred in 1937?
 - A German airship called the *Hindenburg* caught fire and crashed.
 - B For the first time, lighterthan-air crafts were equipped with propellers.
 - © The element helium was discovered and used in balloons.
 - ① The Montgolfier brothers discovered that using "Montgolfier gas" was an effective way to make a balloon float.
- **5.** Which of the following means *curious* or *very interested?*
 - (A) engulfed
 - B inflammable
 - (C) intrigued
 - ① submerge

Quick Check (continued)

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- 6. What is the main idea of the section "Constructing 'Smoke-Powered' Balloons"?
 - A The English chemist Henry Cavendish identified hydrogen as an element.
 - B The Montgolfier brothers began burning different combustible materials to identify ones that produced a lot of smoke.
 - © The Montgolfier brothers gained favor with the king and were given government funding.
 - Without really understanding how hot-air balloons worked, the Montgolfier brothers were still successful enough with their early designs to attract attention.

- 7. Why was Joseph Montgolfier's first attempt to float paper spheres with hydrogen gas unsuccessful?
 - (A) The hydrogen was too flammable and caught the paper on fire.
 - B He could not find a reliable source of hydrogen to use for his experiments and did not have enough to make the spheres float.
 - © The hydrogen atoms were so small that they passed through the paper.
 - ① The hydrogen produced too much foul-smelling smoke.
- **8.** Why is helium a much better gas for balloons than hydrogen?
 - A It does not catch fire or explode.
 - B It is much less expensive.
 - © It allows the balloons to fly higher.
 - ① It is lighter than hydrogen.

Quick Check (continued)

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- **9.** A **physicist** named Jacques Charles proposed building a hydrogen balloon. What is a **physicist**?
 - A scientist who studies items that are easily able to catch fire and burn
 - B a scientist who studies the nature and properties of energy and matter
 - © a scientist who studies wingless aircraft capable of powered flight
 - a scientist who studies chemical elements and how chemicals interact

- **10.** Why did the people in the village of Gonesse attack Charles's balloon when it landed?
 - A The Montgolfier brothers paid them to destroy the balloon.
 - B King Louis asked them to destroy it because he preferred the work of the Montgolfier brothers.
 - © They were terrified and thought it was a strange monster from the sky.
 - ① The villagers did not like Charles and did not want him to continue making balloons.
- 11. Extended Response: What is the legacy of lighter-than-air flight after the initial hot-air balloon flights?
- **12. Extended Response:** In what ways do you think rivalry helped advance the evolution of aircraft? Use specific examples from the text.

Quick Check Answer Sheet

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Main Comprehension Skill: Cause and Effect

- **1. B** Vocabulary
- 2. D Author's Purpose
- **3.** (C) Cause and Effect
- **4.** A Sequence Events
- **5.** ① Vocabulary
- **6.** (D) Main Idea and Details
- **7.** (C) Cause and Effect
- **8.** (A) Main Idea and Details
- **9.** B Vocabulary
- **10.** (C) Cause and Effect
- 11. Answers should include the following: People continued to experiment with air travel despite the risks. By the 1800s, lighter-than-air vehicles had rudders and motorized propellers, so they were more controllable. By the 1930s, huge airships were flying passengers across the Atlantic Ocean. After the crash of the Hindenburg, however, airships were no longer used for large numbers of passengers. Today, airships are used mostly for advertising, and many people continue to enjoy hot-air balloons.
- 12. Answers will vary but should include the idea that with competition and rivalry, inventors are always looking to improve their experiments and always coming up with new ideas. For example, even though the Montgolfier brothers gave up on using hydrogen to float their balloons, Charles continued his experimentation with hydrogen, which ultimately led to the birth of airships.