



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: AQUEDUCT OF SEGOVIA

1. Write a few sentences describing how the Romans built the aqueduct in Segovia, Spain.
2. If you went to Segovia, which structure would you most like to see? Why?
3. When was the aqueduct built?
 - A. around 100 CE
 - B. the 1500s
 - C. the 1900s
4. How would vibrations from cars damage the aqueduct's arches?
 - A. Vibrations would make the arches less stable.
 - B. Vibrations would make the arches look bad.
 - C. Vibrations would hold up the arches.



5. What does **visible** mean in the *Aqueduct of Segovia* book?

*Only part of the aqueduct is **visible**. The rest is underground.*

- A. able to be moved
- B. able to be heard
- C. able to be seen

6. What does **historic** mean in the *Aqueduct of Segovia* book?

*Today, the aqueduct is a **historic** site. It is the largest Roman aqueduct still standing.*

- A. no longer standing
- B. important to history
- C. part of nature



ANSWER KEY FOR EXTREME ENGINEERING: AQUEDUCT OF SEGOVIA

1. Answers will vary
2. Answers will vary
3. A
4. A
5. C
6. B



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: BURJ KHALIFA

1. Write a few sentences describing how Burj Khalifa was built.
2. If you traveled to Dubai, would you like to go to the top of Burj Khalifa?
Why or why not?
3. How many workers did it take to build Burj Khalifa?
 - A. fewer than 160
 - B. about 12,000
 - C. more than 20,000
4. Why might architects want a tall building to sway in the wind?
 - A. so people inside get better views
 - B. so the building moves slightly instead of breaking
 - C. so building materials fall apart more quickly



5. What does **structures** mean in the *Burj Khalifa* book?

*People have been building tall **structures** for thousands of years. Often, these buildings showed off wealth and power.*

- A. outer crusts that hold things together
- B. long, thin ropes or strings
- C. buildings made from many parts

6. What does **residences** mean in the *Burj Khalifa* book?

*People can live in the tower, too. It has 900 **residences**.*

- A. homes where people live
- B. people who work in a building
- C. money people pay to live somewhere



ANSWER KEY FOR EXTREME ENGINEERING: BURJ KHALIFA

1. Answers will vary
2. Answers will vary
3. B
4. B
5. C
6. A



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: CHANNEL TUNNEL

1. Write a few sentences describing the main ideas of Chapter 2.
2. Would you rather go through the Channel Tunnel or across the English Channel in a boat? Why?
3. In what year did workers begin digging the Channel Tunnel?
 - A. 1987
 - B. 1994
 - C. 2021
4. How much faster is it to take a train across the English Channel than a ferry?
 - A. 35 minutes
 - B. 55 minutes
 - C. 90 minutes



5. What does **strait** mean in the *Channel Tunnel* book?

*The tunnel crosses the **Strait** of Dover. It's the narrowest part of the English Channel.*

- A. a very large ocean
- B. a thin body of water
- C. a small town or village

6. What does **zooms** mean in the *Channel Tunnel* book?

*The train **zooms** through the tunnel. The journey takes just 35 minutes.*

- A. is very loud
- B. stops inside
- C. goes quickly



ANSWER KEY FOR EXTREME ENGINEERING: CHANNEL TUNNEL

1. Answers will vary
2. Answers will vary
3. A
4. B
5. B
6. C



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: EIFFEL TOWER

1. Write a few sentences describing how the Eiffel Tower was built.
2. Would you want to go to the Eiffel Tower's top platform? Why or why not?
3. In what year was the Eiffel Tower finished?
 - A. 1889
 - B. 1909
 - C. 2022
4. Why would people need to watch the tower for cracks?
 - A. Cracks in the metal could weaken it.
 - B. Cracks in the metal could cause less rust.
 - C. Cracks could make the tower heavier.



5. What does **record** mean in the *Eiffel Tower* book?

*It was the tallest human-made structure in the world. It kept this **record** for more than 40 years.*

- A. a group of songs
- B. facts that are written down
- C. top height, length, or speed

6. What does **supposed** mean in the *Eiffel Tower* book?

*At first, the tower was only **supposed** to stand for 20 years. Then it would be taken apart.*

- A. meant
- B. questioned
- C. changed



ANSWER KEY FOR EXTREME ENGINEERING: EIFFEL TOWER

1. Answers will vary
2. Answers will vary
3. A
4. A
5. C
6. A



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: GOLDEN GATE BRIDGE

1. Write a few sentences describing how workers built the Golden Gate Bridge.
2. Which part of the Golden Gate Bridge do you think is most interesting? Why?
3. How long is the Golden Gate Bridge?
 - A. 300 feet (90 m)
 - B. 746 feet (227 m)
 - C. 1.7 miles (2.7 km)
4. Why might it be important for the bridge to stand out against the fog?
 - A. so boats can see the bridge and steer around it
 - B. so people can see the bridge from space
 - C. because bright colors of paint cost less



5. What does **hybrid** mean in the *Golden Gate Bridge* book?

*The engineers' first idea was a **hybrid** bridge. It used parts of old bridge designs. But it also used new ideas.*

- A. made by using extra-strong materials
- B. made by combining two different things
- C. made by reusing parts of buildings

6. What does **elegant** mean in the *Golden Gate Bridge* book?

*The bridge became famous for its simple but beautiful design. People loved its **elegant** shape and bright color.*

- A. ugly or unoriginal
- B. extremely tall and wide
- C. well-made and nice to look at



ANSWER KEY FOR EXTREME ENGINEERING: GOLDEN GATE BRIDGE

1. Answers will vary
2. Answers will vary
3. C
4. A
5. B
6. C



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: HOOVER DAM

1. Write a few sentences describing how Hoover Dam was built.
2. Which part of Hoover Dam would you most like to tour? Why?
3. What year was Boulder City, Nevada, founded?
 - A. 1918
 - B. 1931
 - C. 1936
4. How long did it take to build the Hoover Dam?
 - A. one year
 - B. five years
 - C. six years



5. What does **massive** mean in the *Hoover Dam* book?

*They walk on top of the **massive** concrete structure. The dam is 726 feet (221 m) high.*

- A. very skinny
- B. very weak
- C. very large

6. What does **varied** mean in the *Hoover Dam* book?

*But the river's level **varied**. Sometimes it flooded. Other times it was too low.*

- A. changed
- B. stopped
- C. heated



ANSWER KEY FOR EXTREME ENGINEERING: HOOVER DAM

1. Answers will vary
2. Answers will vary
3. B
4. B
5. C
6. A



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: PANAMA CANAL

1. Write a few sentences describing how ships move through the Panama Canal.
2. What fact about the Panama Canal did you find most impressive? Why?
3. When did the United States begin building the canal?
 - A. 1904
 - B. 1914
 - C. 1999
4. What would happen if the canal had single locks instead of pairs?
 - A. Ships could no longer travel through.
 - B. Ships could only go one way at a time.
 - C. The way ships use the canal would not change.



5. What does **voyage** mean in the *Panama Canal* book?

*Before it was built, they had to sail around South America. That **voyage** took months.*

- A. a way to get somewhere
- B. a way to make money
- C. a try to trick someone

6. What does **challenging** mean in the *Panama Canal* book?

*Panama's rainy weather made the work **challenging**. It caused landslides and made workers sick.*

- A. easy to do
- B. full of problems
- C. free from problems



ANSWER KEY FOR EXTREME ENGINEERING: PANAMA CANAL

1. Answers will vary
2. Answers will vary
3. A
4. B
5. A
6. B



COMPREHENSION QUESTIONS

EXTREME ENGINEERING: PETRA

1. Write a few sentences that explain the main ideas of Chapter 2.
2. If you went to Petra, what part would you most want to see? Why?
3. Which empire was Petra the capital of?
 - A. Byzantine Empire
 - B. Roman Empire
 - C. Nabataean Empire
4. How would repairing Petra's dams and channels help prevent floods?
 - A. The dams and channels control where water flows.
 - B. The dams and channels stop all water.
 - C. The dams and channels would be gone.



5. What does **abandoned** mean in the *Petra* book?

*People began leaving. By the 700s, Petra was **abandoned**.*

- A. empty of people
- B. full of people
- C. full of water

6. What does **spring** mean in the *Petra* book?

*The road into Petra had channels along its walls. The channels brought water from a **spring** 5 miles (8 km) away.*

- A. a time of year
- B. a coiled piece of metal
- C. a source of water



ANSWER KEY FOR EXTREME ENGINEERING: PETRA

1. Answers will vary
2. Answers will vary
3. C
4. A
5. A
6. C