# Building Tunnels

Name _____ Date _____

**Instructions:** Read each question carefully and choose the best answer.

**1.** Tunnels are built to _____.

Ⓐ test how powerful explosives are

Ⓑ connect different waterways

Ⓒ allow people and goods to get places quickly

Ⓓ check the soil and how strong it is

**2.** Which of the following happened in the 1860s?

Ⓐ The first tunnel was built.

Ⓑ The largest tunnel in the world was built.

Ⓒ The Channel Tunnel was opened.

Ⓓ Dynamite was used to make tunnels easier to build.

**3.** What must happen before a tunnel is built?

Ⓐ Samples of the rocks and soil are collected.

Ⓑ All the trees in the area are cleared away.

Ⓒ A giant hole is dug into the surface.

Ⓓ The rock is blown up into small parts.

**4.** When a tunnel is **stable**, it _____.

Ⓐ is under water

Ⓑ is safe for workers

Ⓒ is made out of soft earth

Ⓓ is dangerous for workers

**5.** Why might workers need to use bolts or concrete in a tunnel of solid rock?

Ⓐ to find out what type of rock they will dig through

Ⓑ to pump water out

Ⓒ to determine where to place the tunnel

Ⓓ to make sure the rocks don't move

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Name _____ Date _____

**6.** What is the effect of a tunnel-boring machine breaking?

Ⓐ It can take months or years to fix.

Ⓑ Parts can fly off and hit someone.

Ⓒ The machine cannot be fixed.

Ⓓ Workers can lose their jobs.

**7.** How is building tunnels in hard earth different from building tunnels in soft earth?

Ⓐ When digging in soft earth, workers dig, then line the tunnel.

Ⓑ When digging in hard earth, workers support, then dig the tunnel.

Ⓒ When digging in soft earth, workers add support, then dig the tunnel.

Ⓓ When digging in hard earth, workers dig without supporting the tunnel.

**8.** _____ is an example of an underwater tunnel.

Ⓐ The Stad Ship Tunnel

Ⓑ The Seikan Tunnel

Ⓒ The Brenner Base Tunnel

Ⓓ The Marmaray Tunnel

**9.** When building some underwater tunnels, workers dig _____ and then lower down sections of the tunnel.

Ⓐ explosives

Ⓑ obstacles

Ⓒ trenches

Ⓓ muck

**10.** How is the Channel Tunnel different from the Marmaray Tunnel?

Ⓐ The Channel Tunnel was made by lowering tunnel parts into the water.

Ⓑ The Channel Tunnel was made with many tunnel-boring machines.

Ⓒ The Channel Tunnel is much longer and taller.

Ⓓ The Channel Tunnel was made by blowing up large rocks into small pieces.

Name _____ Date _____

11. **Extended Response:** How have tunnels changed transportation throughout the world?

12. **Extended Response:** How did the invention of dynamite change the future of tunnels?

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Quick Check Answer Sheet

# Building Tunnels

*Main Comprehension Skill: Cause and Effect*

1. Ⓒ *Main Idea and Details*
2. Ⓓ *Sequence Events*
3. Ⓐ *Sequence Events*
4. Ⓑ *Vocabulary*
5. Ⓓ *Cause and Effect*
6. Ⓐ *Cause and Effect*
7. Ⓒ *Compare and Contrast*
8. Ⓓ *Main Idea and Details*
9. Ⓒ *Main Idea and Details*
10. Ⓑ *Compare and Contrast*
11. Answers will vary, but students should note the following: *Tunnels have changed the way people and goods move throughout the world, because they make travel easier and shorter. Rather than finding a way around or over natural obstacles, tunnels make it possible to travel them.*
12. Students should note the following: *Prior to the invention of dynamite, explosives were not easy or safe to use and therefore were not effective in helping to build tunnels. Dynamite was more effective, and therefore made the job of creating tunnels much easier.*