Quick Check Gems: Treasures From the Earth

Name ______ Date _____

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

- 1. Why do rare gems cost a great amount of money?
 - (A) They are rare.
 - B Mining them is often done by hand.
 - ① They are only found deep within the earth.
 - (D) All of the above
- 2. Where are most crystals formed?
 - (A) on the slopes of volcanoes
 - (B) deep within the earth
 - (C) in rivers in Africa
 - ① all of the above

- **3.** How are crystals and organic gems different?
 - A Crystals are minerals, and organic gems come from living things.
 - ® Crystals are found near the surface of the earth, and organic gems come from deep within the earth.
 - © Crystals are skeletons of tiny sea creatures, and organic gems are mixed minerals with strict shapes.
 - ① Crystals are used in jewelry, and organic gems are used on tools.
- 4. What are atoms?
 - A types of gems created from crystals
 - B very small particles that make up all things on Earth
 - © certain types of gems found only in South America
 - ① types of sea creatures that form coral reefs

Quick Check (continued)

Name ______ Date _____

- 5. Why is it important for a gem in a ring to be high on the Mohs scale?
 - (A) so it will have a purer color
 - B so it will not have any streaks or grain
 - © so it will not be damaged during wear
 - so it will be closer to a diamond on the scale
- 6. How is a gem valued?
 - (A) by where it was mined
 - B by how many facets it contains
 - © by how hard it was to locate and mine
 - by its cut, carat, color, and clarity
- 7. What is not true about natural pearls?
 - (A) They can take years to form.
 - B They are perfectly round.
 - © They are an organic gemstone.
 - ① They form inside oysters from a grain of sand.

8. Which of the following includes an opinion?

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- (A) The most valuable quartz is a stone called *opal*.
- B Blue-green turquoise often has pretty spots and streaks running through it.
- © Gem-quality emeralds are rare and usually small.
- ① Quartz is found all over the world, in all colors of the rainbow.
- **9.** What type of gem is formed when a mineral is squeezed under layers of rock?
 - (A) diamond
 - (B) emerald
 - © pearl
 - (I) opal
- **10.** Which of the following is not a **crystal**?
 - (A) a diamond
 - B a pearl
 - (C) a sapphire
 - (I) an opal





Quick Check (continued)

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11. Extended Response: Explain how creating gems in a lab can benefit people and the environment.

12. Extended Response: How do gems, such as crystals, sapphires, and opals form differently from each other?



LEVEL V

Quick Check Answer Sheet

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Main Comprehension Skill: Cause and Effect

- **1.** (D) Cause and Effect
- 2.

 B Main Idea and Details
- **3.** (A) Compare and Contrast
- **4.** B Vocabulary
- **5.** (C) Make Inferences / Draw Conclusions
- **6.** (D) Main Idea and Details
- 7. (B) Main Idea and Details
- 8. B Fact or Opinion
- **9.** (A) Cause and Effect
- **10.** B Vocabulary
- 11. Answers will vary somewhat but should include the following: strip mining, which is used to find gems, destroys huge areas of land; people have been killed mining gems; and because they are rare, people have died trying to get them.
- 12. Answers should include the following: Crystals: minerals squeezed under layers of rocks, squeezing forces atoms to arrange themselves in the smallest shape possible. Sapphires: minerals get so hot inside the earth that they melt; as they slowly cool, the atoms form a regular crystal pattern. Opals: minerals dissolve in water; as the water evaporates very slowly, the minerals left behind form a crystal.