

3. How would a collector of minerals determine the hardness of an unknown mineral specimen?

4. What three qualities of titanium make it a good material for producing hip or knee replacements?

5. Coal, like graphite, is composed of carbon. Unlike graphite, coal is formed from decayed, once-living matter. Is it a mineral? Explain your answer.

6. Explain why most quartz is not considered a gemstone while amethyst, which is a kind of quartz, is a gemstone.

Skill: Comparing and Contrasting

7. Extracting minerals for human use can have both advantages and disadvantages. List two advantages and two disadvantages.

Skill: Concept Mapping

8. In the process of mining for bauxite ore, what is the first item: processing to get aluminum, locating the mineral, or mining the bauxite?

Skill: Classifying

Directions: Classify the following materials by writing **M** for mineral, **G** for gem, **O** for ore, and **N** for none. Some may have more than one label.

_____ 9. diamond

_____ 10. hematite

_____ 11. sphalerite

_____ 12. halite

_____ 13. quartz

_____ 14. pyrite

_____ 15. magma