

Unit 6 Study Guide

1. A mineral sample scratches, fingernails (2.5), pennies (3.5) and glass (5.5) but does not scratch steel (6.5). What could be the hardness of the mineral?

2. Name 5 mineral characteristics?

3. The color of the powder that a mineral leaves on a piece of white, unglazed porcelain is called the mineral's _____.

4. Pyrite is called fool's gold because it looks a lot like gold. What properties can be used to tell pyrite and gold apart?

5.

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|------------|---|
| I | Rock is mixture one or more minerals |
| II | A mineral is a mixture of many rocks |
| III | Minerals are solid |
| IV | Rocks and minerals are naturally formed |

Which of the following statements are TRUE?

6.

| Mineral | Color | Luster | Streak | Hardness |
|-------------|--|--------------------|---------------|----------|
| Beryl | deep green, pink, white, bluish green, or yellow | vitreous | white | 7.5-8 |
| Chlorite | green | vitreous to pearly | pale green | 2-2.5 |
| Olivine | olive green, yellow | vitreous | white or none | 6.5-7 |
| Orthoclase | colorless, white, pink, or other colors | vitreous | white or none | 6 |
| Plagioclase | colorless, white, yellow, pink, green | vitreous | white | 6 |
| Quartz | colorless or white; any color when not pure | vitreous or waxy | white or none | 7 |

What mineral is described above?

- Colorless or white in appearance when pure
- Density around 2.6
- Scratches glass but not a diamond
- White Streak
- Vitreous (glassy)

7. How are rocks DIFFERENT from minerals?

8. Ms. Jones is teaching her class about rocks and minerals. She holds up a rainbow chocolate chip cookie and explains that the cookie is like a rock. Next, she points to the different colored chocolate chips. What do the chocolate chips represent?

9. Minerals are naturally occurring inorganic solids that possess an orderly internal structure and a definite chemical composition. This orderly internal structure or regular pattern is called its _____.

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10. Juan observes a material in the rocks of a hill. Juan hammers off a piece and then examines the pieces with a hand lens. He makes the following notes about what he observes:
 - has luster
 - cubic crystals
 - clear in colorWhat did he most likely observe through the hand lens?
11. Students want to identify a rock in a nearby field. What properties would be most useful in identifying the unknown rock?
12. Extrusive rocks are formed by _____.
13. Ricardo has an igneous rock in his rock collection. Where did this rock most likely form?
14. Rocks are affected by heat and pressure. One source of this pressure is _____.
15. During a summer vacation in Hawaii, Carlos found several rock samples to share with his Earth Science class. Most of the rocks were black, containing only few light-colored crystals. All of the crystals were large and the rocks had a coarse texture. What can you infer about the rocks Carlos found?
16. Which kind of rock is formed when volcanic lava cools?
17. Rocks found on Earth are generally classified as sedimentary, metamorphic, or igneous. On which basis are these classifications made?
18. Granite is a kind of _____.
19. What type of rock results from sediments undergoing compaction and cementation?
20. Igneous rocks are classified by where they are formed. Which type of igneous rock forms underground?
21. When limestone is exposed to enough heat and pressure, it goes through physical changes. These changes can turn limestone into a different kind of rock called marble. What kind of rock is marble?
22. What is the formation process for a sedimentary rock?