

Mineral Properties

Grade 3 • SCIENCE • Students use color, hardness, and luster observations to compare and identify minerals from provided evidence. • Standards: 2-PS1-1

Read the clues about each mineral's color, hardness, and luster. Then answer the question using the information given.

1. A mineral is red and shiny. What color is this mineral?
2. Mineral A has a shiny luster. Mineral B has a dull luster. Which mineral reflects more light?
3. A mineral can scratch a penny but cannot scratch glass. Is this mineral soft, medium, or hard?
4. Mineral X is yellow with a shiny luster. Mineral Y is yellow with a dull luster. What property is different between these two minerals?
5. A scientist finds a green mineral that can scratch a penny. Another green mineral cannot scratch a penny. Which property helps tell these minerals apart?
6. Mineral P is black, shiny, and can scratch glass. Mineral Q is black, dull, and cannot scratch a penny. How many properties are different between Mineral P and Mineral Q?
7. A mineral is gray, has a shiny luster, and can scratch a penny but not glass. Another mineral is gray, has a shiny luster, and can scratch glass. Which mineral is harder?
8. Use this chart. Mineral 1: white, shiny, scratches glass. Mineral 2: white, dull, cannot scratch penny. Mineral 3: gray, shiny, scratches glass. Which two minerals have the same hardness?
9. A student tests four minerals. Mineral J is brown, shiny, and scratches a penny. Mineral K is brown, shiny, and scratches glass. Mineral L is black, shiny, and scratches a penny. Which mineral shares all three properties with Mineral J?

10. Scientists describe Mineral W as purple, dull, and able to scratch glass. They describe Mineral Z as purple, shiny, and able to scratch a penny but not glass. A new mineral is purple, shiny, and can scratch glass. How many properties does it share with Mineral W and how many with Mineral Z?

Answer Key — Mineral Properties

For the teacher / parent. Do not distribute with the worksheet.

1. red
2. Mineral A
3. medium
4. luster
5. hardness
6. 2 (*Luster and hardness are different; color is the same*)
7. the second mineral
8. Mineral 1 and Mineral 3 (*Both can scratch glass, so both are hard*)
9. none (*Mineral K has different hardness; Mineral L has different color*)
10. 2 with Mineral W and 2 with Mineral Z (*Shares color and hardness with W; shares color and luster with Z*)