

Observing the Properties of Different Types of Rocks

QUESTION: How do the properties of different types of rocks compare?

PURPOSE:

To observe and compare the properties of different types of rocks.

MATERIALS:

- 3–6 different types of rocks (examples: granite, basalt, limestone, sandstone, slate, marble)
- Magnifying glass
- Streak plate (unglazed ceramic tile works well)
- Steel nail or coin
- Dropper with water
- Ruler
- Science notebook or worksheet



SAFETY:

- Handle rocks carefully.
- Some rocks may have sharp edges.
- Wash hands after the experiment.

PROCEDURE:

1. Place your rocks on the table.
2. Observe each rock closely.
3. Test and record the properties listed in the data table for each rock.
4. Compare your results and look for patterns.
5. Answer the analysis questions.

DATA TABLE: Record your observations for each rock.

Rock Name (Type)	Color	Texture (How does it feel?)	Luster (Dull or Shiny?)	Streak Color (What color is the streak on the streak plate?)	Hardness (Scratch Test: What can it scratch?)	Absorption (Does it absorb water?)

PROPERTIES TO OBSERVE & TEST



Color – What is the color of the rock?



Texture – Is it smooth, rough, bumpy, or grainy?



Luster – Does it look dull or shiny?



Streak – Rub the rock on the streak plate.
What color is the streak?



Hardness (Scratch Test) – Try scratching the rock with your fingernail, a copper coin, or a steel nail.
What can it scratch?



Absorption – Put a drop of water on the rock.
Does it soak in or bead up?

ANALYSIS QUESTIONS

1. Which rock was the hardest? How do you know?

2. Which rock absorbed water? Which did not?

3. What patterns do you notice in the colors or textures of the rocks?

4. How are the rocks different from each other?

5. How might these properties help identify a rock in nature?



THINK FURTHER: How do you think each rock was formed? (Igneous, Sedimentary, or Metamorphic?)