

Purpose: To practice identifying the texture of a rock.

Research. Scientists have observed that rocks have a variety of textures. Texture is the _____ of a rock's surface. A rock's texture can be described by looking at the grains. The grains of a rock are particles of _____ that make up the rock. There are three ways to describe grain: _____. Each has two or more ways to describe it. If, however, the rock is not made of any grains, it is described as having _____ (NVG).

In the table below is a summary of what the grain textures are.

| Grain Property | Description | Texture |
|----------------|--------------------------|----------------------|
| Size | Large, easy to see | 1. _____ |
| Size | 2. _____ | Fine-grained |
| Shape | 3. _____ | Rounded |
| Shape | Grains are rough | 4. _____ |
| 5. _____ | Layered or random grains | Banded or non-banded |
| 6. _____ | No crystal grains | Smooth and shiny |

Procedure. Using the tray of materials, examine each rock. Use the hand lens as needed. For each rock, record the rock's grain size, shape, and pattern. If there is no grain, mark "no visible grain" and move on to the next rock.

1. Rock sample: *Obsidian* No Visible Grain?
- Grain size: _____ Grain shape: _____
- Grain pattern: _____
- Continue to back side of worksheet!

2. Rock sample: *Rhyolite* No Visible Grain?
Grain size: _____ Grain shape: _____
Grain pattern: _____
3. Rock sample: *Conglomerate* No Visible Grain?
Grain size: _____ Grain shape: _____
Grain pattern: _____
4. Rock sample: *Granite* No Visible Grain?
Grain size: _____ Grain shape: _____
Grain pattern: _____

Analysis and Results. Answer the following questions using your data.

1. Which rock had no visible grain? _____
How do you know? _____

Why does this rock have NVG? (Find the rock in the textbook.)

2. Which rock samples had a rounded grain? _____
3. Is the rock you picked for number 2 sedimentary? Explain how you know.

Conclusions. Answer the following question.

1. Igneous rocks are made of different minerals packed together. Will an igneous rock ever have rounded grain? Make a prediction below and then justify your answer. (Hint: think of activities we've done about the shapes of minerals.)
