

Chapter 5 Rocks

Classifying Rocks

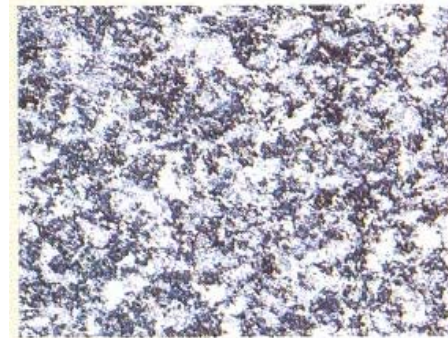
Figure 3 Texture helps geologists classify rocks. *Forming Operational Definitions - Looking at the rocks below, describe the characteristics of a rock that help you define what a rock's "grain" is.*



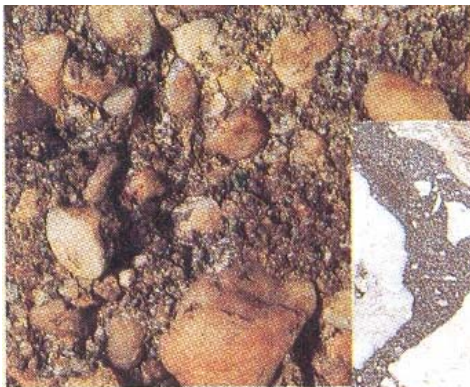
Fine-grained
Slate



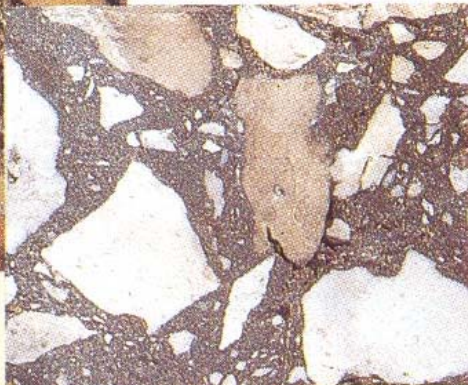
No visible grain
Flint



Coarse-grained
Peridotite

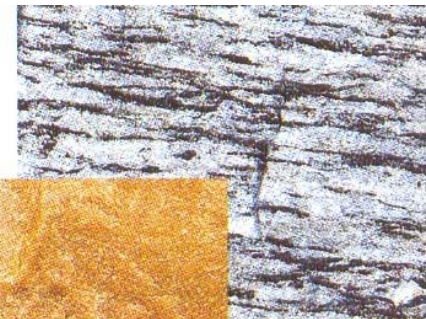


Rounded grain
Conglomerate



Jagged grain
Breccia

Nonbanded
Quartzite



Banded
Gneiss

Figure 3: Sample Answer

- Texture is described with the terms based on:
 - Grain size
 - Fine-grained
 - Coarse-grained
 - Grain shape
 - Smooth
 - Jagged
 - Grain pattern
 - banded
 - nonbanded

What characteristics are used to identify rocks?

- When studying a rock sample, geologists observe the rock's
 - Color
 - Texture
 - Determine its mineral composition

What are the three major groups of rocks?

- Igneous rock
 - Forms from the cooling of molten rock - either magma below the surface or lava at the surface
- Sedimentary rock
 - Forms when particles of other rocks or the remains of plants and animals are pressed and cemented together
 - Forms below the surface
- Metamorphic rock
 - Forms when an existing rock is changed by heat, pressure, or chemical reactions
 - Most metamorphic rock forms deep underground

What tests do geologists use to identify minerals in rocks?

- Scratch Test (Mohs)
- Use acid to determine whether the rock contains the mineral calcite
- Magnet test