GEOLOGY: ROCKS & MINERALS

Field Identification & Classification Guide

Igneous Rocks

SPECIMEN	TEXTURE & COMPOSITION	COMMON USES
Granite	Phaneritic, intrusive. Coarse grains of quartz and feldspar.	*Construction, countertops.*
Obsidian	Glassy, extrusive. Rapid cooling, no crystal growth.	*Cutting tools, jewelry.*
Basalt	Aphanitic, extrusive. Dark, fine-grained mafic rock.	*Road stone, concrete.*

Sedimentary Rocks

SPECIMEN	FORMATION BASIS	KEY FEATURES
Limestone	Chemical/Organic. Primarily Calcium Carbonate.	*Fossils, acid reactivity.*
Sandstone	Clastic. Sand-sized mineral particles or rock grains.	*Layering, gritty texture.*
Shale	Clastic. Fine-grained silt and clay-sized particles.	*Fissility (splits in layers).*

Metamorphic Rocks

SPECIMEN	PARENT ROCK	METAMORPHIC TYPE
Marble	Limestone / Dolostone	*Non-foliated, crystalline.*
Slate	Shale / Mudstone	*Foliated, fine-grained.*
Gneiss	Schist / Granite	*Foliated, banded appearance.*

Mohs Scale of Mineral Hardness (Quick Ref)

1. Talc 2. Gypsum 3. Calcite 4. Fluorite 5. Apatite 6. Orthoclase 7. Quartz 8. Topaz 9. Corundum 10. Diamond