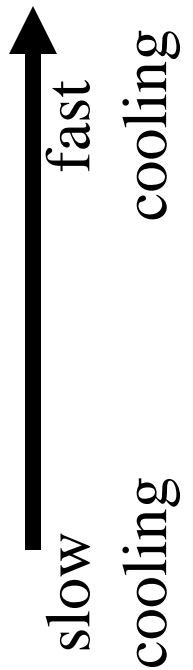


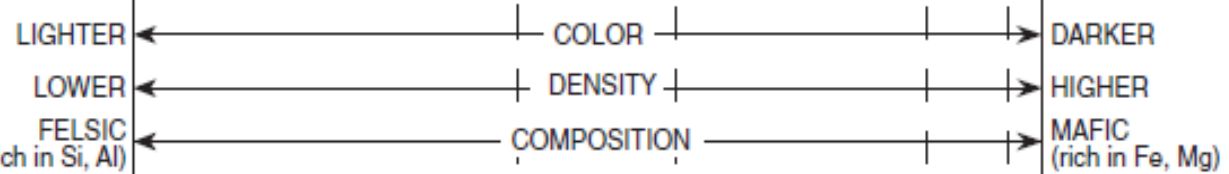
- 1. Make sure to complete Castlelearning assignment by tonight**
- 2. Color in ESRT as shown in next 2 slides and translate any words that you may needs to**

Scheme for Igneous Rock Identification

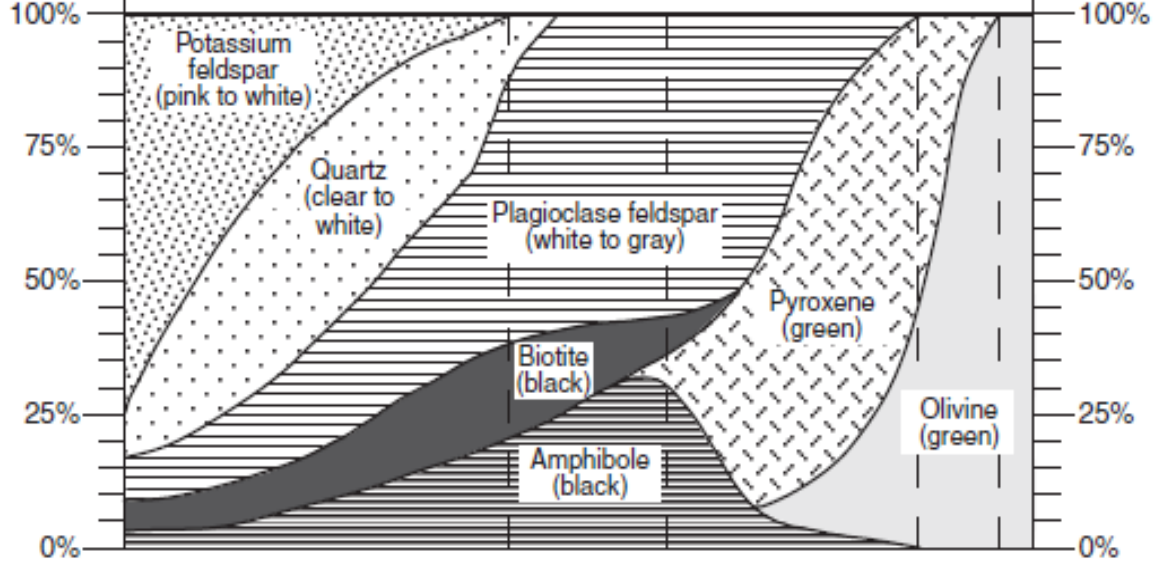
| | | | | | CRYSTAL SIZE | TEXTURE | | | |
|------------------------------|----------------------|----------------------------------|--------------------|------------------|-----------------|---------|-------------------------|----------------|---------------|
| formed on Earth's surface | EXTRUSIVE (Volcanic) | Obsidian (usually appears black) | | Basaltic glass | non-crystalline | Glassy | Non-vesicular | | |
| | | Pumice | | Scoria | | | | | |
| | | Vesicular rhyolite | Vesicular andesite | Vesicular basalt | less than 1 mm | Fine | Vesicular (gas pockets) | | |
| | | Rhyolite | Andesite | Basalt | | | | | |
| formed below Earth's surface | INTRUSIVE (Plutonic) | Granite | Diorite | Gabbro | Peridotite | Dunite | 1 mm to 10 mm | Coarse | Non-vesicular |
| | | Pegmatite | | | | | | | |
| | | | | | | | | 0 mm or larger | |



CHARACTERISTICS




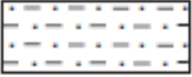



MINERAL COMPOSITION (relative by volume)

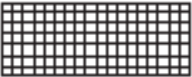

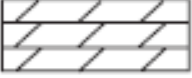
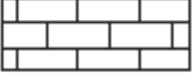



Scheme for Sedimentary Rock Identification

INORGANIC LAND-DERIVED SEDIMENTARY ROCKS

| TEXTURE | GRAIN SIZE | COMPOSITION | COMMENTS | ROCK NAME | MAP SYMBOL |
|---------------------------------|---|---|-------------------|---------------------|---|
| Clastic (fragmental) | Pebbles, cobbles, and/or boulders embedded in sand, silt, and/or clay | Mostly quartz, feldspar, and clay minerals; may contain fragments of other rocks and minerals | Rounded fragments | Conglomerate |  |
| | | | Angular fragments | Breccia |  |
| | Sand (0.006 to 0.2 cm) | | Fine to coarse | Sandstone |  |
| | Silt (0.0004 to 0.006 cm) | | Very fine grain | Siltstone |  |
| | Clay (less than 0.0004 cm) | Compact; may split easily | | Shale |  |

CHEMICALLY AND/OR ORGANICALLY FORMED SEDIMENTARY ROCKS

| TEXTURE | GRAIN SIZE | COMPOSITION | COMMENTS | ROCK NAME | MAP SYMBOL |
|----------------------------------|----------------------------|-------------|---|------------------------|---|
| Crystalline | Fine to coarse crystals | Halite | Crystals from chemical precipitates and evaporites | Rock salt |  |
| | | Gypsum | | Rock gypsum |  |
| | | Dolomite | | Dolostone |  |
| Crystalline or bioclastic | Microscopic to very coarse | Calcite | Precipitates of biologic origin or cemented shell fragments | Limestone |  |
| Bioclastic | | Carbon | Compacted plant remains | Bituminous coal |  |