4.2 ROCK CLASSIFICATION BY DESIGN

How are rocks classified?

MATERIALS

- Rock Classification Sheet (see next page)
- 1 container/baggie to hold samples
- Rock samples 1B, 4B, 5B, 10B, 13B, 17B, 18B, 20B, 23B, 24B, 25B, and 29B
- Dropper bottles
- Dilute HCL (1M) or white vinegar: drop onto the rock to see if it fizzes (carbonate)
- Hand sanitizer
- Paper towels

DIRECTIONS

1. Sort the rocks into 3 groups according to visual and physical characteristics.
2. Record each group's visual and physical characteristics for classification purposes.
3. Put a drop or two of HCl or white vinegar on each sample to assist in classifying the samples.

REFLECTION

1. How did your group divide up the rock types?
2. What discerning characteristics were used?

ROCK KEY

1B Granite	11B Porphyry, Andesite	21B Limestone, Chalk
2B Pegmatite Granite	12B Volcanic Breccia	22B Coal, Bituminous
3B Syenite	13B Shale, Carbonaceous	23B Slate
4B Diorite	14B Shale, Petroliferous	24B Phyllite
5B Gabbro	15B Sandstone, Siliceous	25B Schist, Mica
6B Rhyolite	16B Sandstone, Arkose	26B Schist, Garnet
7B Basalt	17B Sandstone, Ferruginous	27B Gneiss
8B Obsidian	18B Conglomerate	28B Quartzite
9B Pumice	19B Limestone, Common	29B Marble
10B Scoria	20B Limestone, Fossiliferous	30B Coal, Anthracite

4.2 ROCK CLASSIFICATION BY DESIGN: ROCK CLASSIFICATION SHEET

Sample	Group 1	Group 2	Group 3
1B			
4B			
5B			
10B			
13B			
17B			
18B			
20B			
23B			
24B			
25B			
29B			