

WS Igneous Rock Composition

Directions: On the Scheme for Igneous Rock Identification Handout, each labeled line (A-C) represents a single igneous rock sample with a unique mineral composition.

Identify the mineral composition of each rock sample. List the minerals in the spaces provided in each of the tables below.

Using the % Scale on the side of the Mineral Composition section, measure the % by volume of each mineral for that particular igneous rock sample.

Name of each coarse texture igneous rock based on the identified mineral compositions.

Sample A	Rock Name:
Mineral	% by Volume

Sample B	Rock Name:
Mineral	% by Volume

Sample C	Rock Name:
Mineral	% by Volume

Scheme for Igneous Rock Identification

ENVIRONMENT OF FORMATION		IGNEOUS ROCKS				CRYSTAL SIZE	TEXTURE		
		EXTRUSIVE (Volcanic)		INTRUSIVE (Plutonic)					
ENVIRONMENT OF FORMATION	EXTRUSIVE (Volcanic)	Obsidian (usually appears black)		Basaltic glass		non-crystalline	Glassy	Non-vesicular	
		Pumice		Scoria			less than 1 mm		Vesicular (gas pockets)
		Vesicular rhyolite	Vesicular andesite	Vesicular basalt					
	INTRUSIVE (Plutonic)	Rhyolite	Andesite	Basalt		1 mm to 10 mm	Fine	Non-vesicular	
				Diabase					
Granite		Diorite	Gabbro		Peridotite Dunite				
		Pegmatite				10 mm or larger	Very coarse		

