

Igneous Rocks

Physical Geology

Name _____

Dr. Jan Rasmussen

jrasmussen@pima.edu <http://www.janrasmussen.com>

1. What are the three classes of rocks and how do they form?

2. What are the processes involved in the rock cycle?

3. What are the following textures and their origin?
 phaneritic,
 aphanitic,
 porphyritic,
 pegmatitic,
 glassy, and
 pyroclastic

4. Define and describe the differences between
intrusive (phaneritic or plutonic or coarse grained) and

extrusive (aphanitic or volcanic or fine grained) igneous rocks.

5. Define porphyritic texture and describe how it forms.

6. Define vesicular texture and describe what causes it.

- 7 How do you tell the difference between basalt and rhyolite?

- 8 How do felsic, intermediate, mafic, and ultramafic rocks differ?

- 9 What are the common types of intrusive rock bodies? How do they form?

- 10 What is the relationship between magma formation and plate tectonics?

- 11 What is the Bowen=s reaction series and which mineral is first to crystallize?
last to crystallize?