

Name: \_\_\_\_\_

Period: \_\_\_\_\_

## Igneous Rock WS 1

Use your *Handy Dandy Earth Science Reference Tables*, to answer the following questions. Answer in full sentences where appropriate.

1. What is the texture of granite? \_\_\_\_\_
2. What is the grain size of granite? \_\_\_\_\_
3. Is granite intrusive or extrusive? \_\_\_\_\_
4. Plutonic is also referred to as (intrusive) (extrusive).
5. List the minerals present in granite. \_\_\_\_\_  
\_\_\_\_\_
6. Which minerals **MUST** be in granite (hint: they are in granite but rare in other igneous rocks)? \_\_\_\_\_ and \_\_\_\_\_
7. What is the mineral composition of granite called? \_\_\_\_\_
7. List the minerals present in andesite. \_\_\_\_\_
8. Estimate the percentage of each mineral in gabbro (look the first "b" in gabbro).

Olivine	_____	%
Pyroxene	_____	%
Plagioclase feldspar	_____	%
Biotite mica	_____	%
Amphibole (hornblende)	_____	%
9. What is the texture of gabbro? \_\_\_\_\_
10. How is basalt similar to gabbro? \_\_\_\_\_
11. How is basalt different from gabbro? \_\_\_\_\_  
\_\_\_\_\_

12. Name a fine-grained igneous rock with no pyroxene. \_\_\_\_\_

13. Name a coarse-grained igneous rock with no pyroxene. \_\_\_\_\_

14. Which mineral does peridotite have more of than gabbro? \_\_\_\_\_

15. What is the difference between an igneous rock with a glassy texture and a fine texture? What causes this?  
\_\_\_\_\_

16. Compare rhyolite to basalt (answer in one word only):

a. Which has a lower density? \_\_\_\_\_

b. Which has a lighter color? \_\_\_\_\_

c. Which has a more mafic composition? \_\_\_\_\_

d. Which has a greater percentage of biotite in it? \_\_\_\_\_

e. Which contains Quartz? \_\_\_\_\_

17. Name a felsic, very coarse, intrusive rock. \_\_\_\_\_

18. Felsic igneous rocks generally have a \_\_\_\_\_ color.

19. Mafic igneous rocks generally have a \_\_\_\_\_ density.

20. Intrusive igneous rocks have \_\_\_\_\_ (large/small) mineral crystals because of \_\_\_\_\_ (fast/slow) cooling.

21. Estimate the percentage of each mineral in rhyolite (look under the "o" in rhyolite).

Potassium feldspar	_____	%
Quartz	_____	%
Plagioclase feldspar	_____	%
Biotite mica	_____	%
Amphiboles (hornblende)	_____	%

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## Igneous Rocks II

Use your *Handy Dandy Earth Science Reference Tables*, to answer the following questions. Answer in full sentences where appropriate.

1. What is the texture of rhyolite?
2. What is the grain size of rhyolite?
3. Is rhyolite intrusive or extrusive?
4. Plutonic is also referred to as (intrusive) (extrusive).
5. Estimate the percentage of each mineral in rhyolite (look under the “o” in rhyolite).

Potassium feldspar	_____	%
Quartz	_____	%
Plagioclase feldspar	_____	%
Biotite mica	_____	%
Amphiboles (hornblende)	_____	%
6. List the minerals present in andesite.
7. What is the texture of scoria?
8. Name a fine-grained igneous rock with no quartz.
9. Name a coarse-grained igneous rock with no quartz.
10. Which mineral is present in much greater quantities in peridotite than in gabbro?
11. What is the difference between an igneous rock with a glassy texture and a fine texture? What causes this?

12. Compare rhyolite to basalt (answer in one word only):

- a. Which has a higher density?
- b. Which has a lighter color?
- c. Which has a more felsic composition?
- d. Which has a greater percentage of biotite in it?
- e. Which contains Olivine?

13. Name a mafic, intrusive rock.

14. Name a light-colored, plutonic igneous rock.

15. Mafic igneous rocks generally have a \_\_\_\_\_ color.

16. Felsic igneous rocks generally have a \_\_\_\_\_ density.

17. Extrusive igneous rocks have (large) (small) mineral crystals because of (fast) (slow) cooling.