

Why do some igneous rocks have no crystals and some have big beautiful ones?? They both come from liquid rock..... so..... *So...*

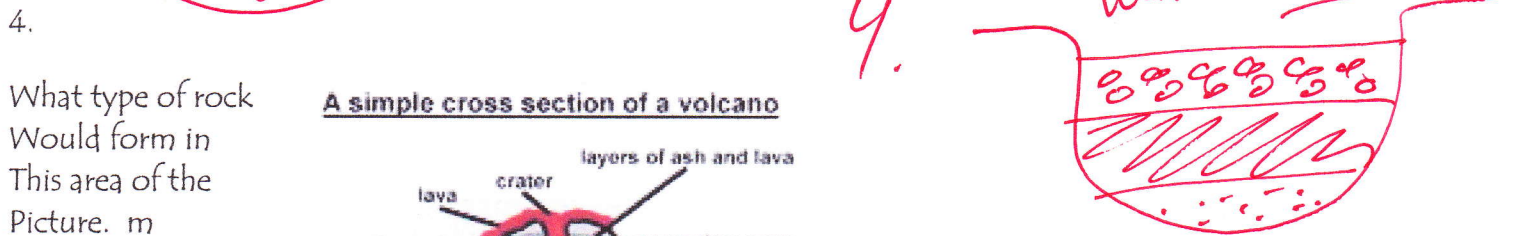
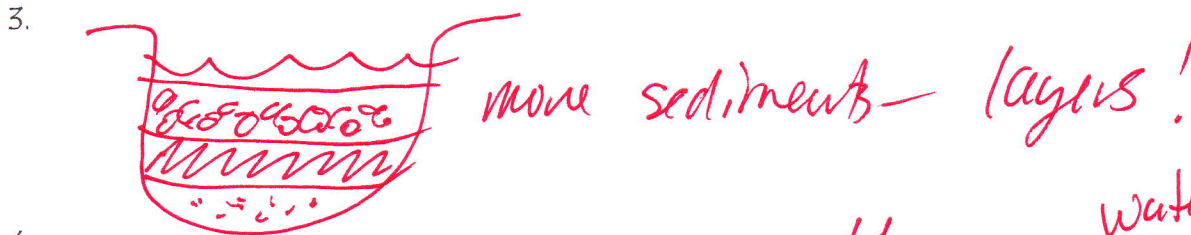
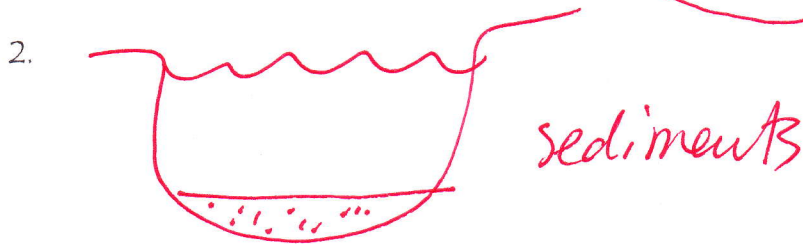
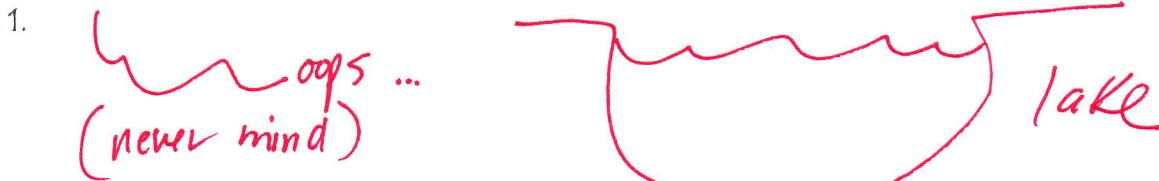
*if the molten material cooled below the ground it cooled slowly and had time to grow large crystals. If on the surface - cooled too quickly to form crystals.*

Explain the story of how we got a piece of schist in class... Start with the Blob of Magma, don't forget any of the steps!!!!

*Magma - cooled into Igneous Rock - that rock was heated up + squished turned Meta morphic - and that repeated a second time to make a different meta morphic rock*

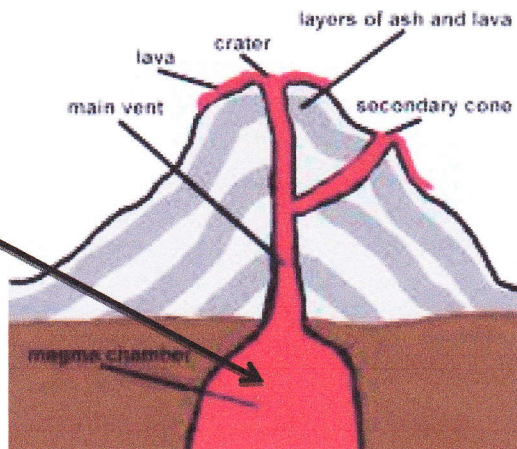
*Surface - cooled too quickly to form crystals.*

Draw a series of four pictures showing the steps to form a Sedimentary Rocks:



What type of rock would form in this area of the picture. m

A simple cross section of a volcano



*INTRUSIVE!  
IGNEOUS!*

What landforms are constructive and what does that word mean?

constructive: builds up landforms

oxbow lake, flood plain, alluvial fan, delta,  
glacial moraine.

What landforms are destructive, what does that mean?

Destructive: wearing down & destroying

V-shape Valleys. U-shape Valleys.

How is WEATHERING different from EROSION?

Weathering is breaking rocks into smaller pieces  
Erosion is Moving them somewhere else.

What are examples of chemical weathering?

1 Carbonic Acid - Sulfuric Acid Rain.

How about physical weathering?

Freezing/thawing, wind abrasion, plant & animal  
action

Which of these weathering have you ever observed in the world??? Write where you saw them too.

Pot Holes - Minnesota! Tree Roots -  
Vermillion Falls

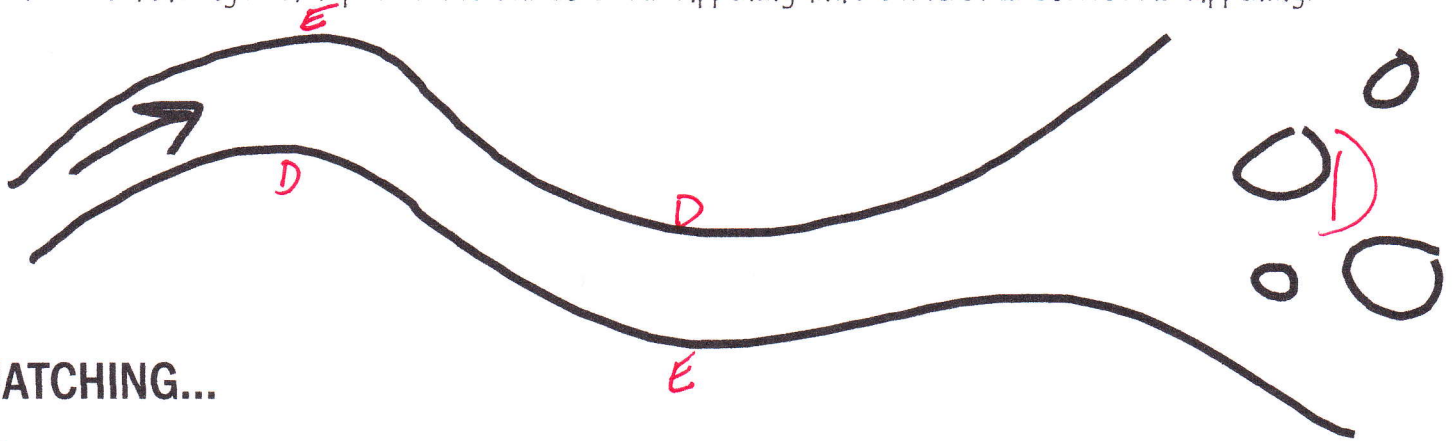
Which landforms come from Glaciers???

- a. Glacial Moraines
- b. U-shape Valleys

Which landforms come from Rivers? (more than two!)

Delta, oxbow Lake, meanders,  
V-shape valleys,

14. In this meandering stream: put E's where EROSION is happening and D's where DEPOSITION is happening:



## MATCHING...

- a 1. Rocks formed by changes in heat and pressure or by toxic acids
- h 2. Rocks formed from molten rock
- c 3. Rocks formed from sediments
- e 4. Igneous rocks that cooled quickly
- j 5. Metamorphic rocks with lines or bands
- i 6. Process by which sediments are squished together
- l 7. Metamorphic rocks with no lines
- d 8. Process by which sediments dry out and harden
- p 9. When sediments used to be living (fossils, shells, plants)
- g 10. Bits of weathered rock, plant material, bones, dirt
- m 11. Process that drops and leaves sediments behind
- K 12. Magma that has reached Earth's surface
- b 13. Model that illustrates the process that change rocks
- n 14. Process that moves or washes sediments away
- q 15. When sediments are non-living (sand, mud, rocks)
- f 16. Igneous rocks with LARGE crystals
- o 17. Body of water that sedimentary rocks around Hastings formed in.

## Column II

- a. Metamorphic rocks
- b. Rock cycle
- c. Sedimentary rocks
- d. Cementation
- e. Extrusive
- f. Intrusive
- g. Sediments
- h. Igneous rocks
- i. Compaction
- j. Foliated
- k. Lava
- l. Non-foliated
- m. Deposition
- n. Erosion
- o. Ocean
- p. Organic
- q. Clastic

# ROCK REVIEW

NAME Crownhart HOUR 7

## MULTIPLE CHOICE

- d 1. Magma that cools below Earth's surface forms \_\_\_\_ rocks.  
a. extrusive metamorphic                      c. intrusive metamorphic  
b. extrusive igneous                              d. intrusive igneous
- a 2. The processes involved in the rock cycle include all of the following except \_\_\_\_\_.  
a. condensation                      b. erosion                      c. weathering                      d. compaction
- b 3. Foliated rocks are distinguished by \_\_\_\_\_.  
a. large pores                      b. lines or bands                      c. mineral grains                      d. different sediments
- C 4. Lava that cools quickly on Earth's surface forms \_\_\_\_ rocks.  
a. extrusive metamorphic                      c. extrusive igneous  
b. intrusive sedimentary                      d. intrusive igneous
- C 5. Metamorphic rocks form from all of the following except:  
a. heat                      b. pressure                      c. erosion                      d. acids
- b 6. Quartz is a mineral, granite is \_\_\_\_\_.  
a. also a mineral                      b. a rock                      c. glass                      d. liquid
- b 7. A classification of metamorphic rocks would include which of the following:  
a. intrusive vs. extrusive                      b. foliated vs. non-foliated                      c. clastic vs. organic                      d. mineral vs. rock
- d 8. Sedimentary rocks are \_\_\_\_\_.  
a. formed below Earth's surface from magma                      c. formed from great heat and pressure  
b. a type of foliated metamorphic rock                      d. formed from pieces of rock/dirt squished together
- C 9. Metamorphic rocks with line or bands in them are considered:  
a. organic                      b. intrusive                      c. foliated                      d. non-foliated
- b 10. Flood water picking up huge rocks and tons of dirt and carrying them away is an example of:  
a. cementation                      b. erosion                      c. deposition                      d. compaction
- a 11. The big island of Hawaii grows about 2 feet bigger every day, this is an example of:  
a. constructive forces                      b. melting                      c. destructive forces                      d. compaction
- d 12. Which of the following landform is caused from DEPOSITION:  
a. V Shaped valleys                      b. meander erosion                      c. U shaped valleys                      d. alluvial Fans
- a 13. The Grand Canyon has formed from water eroding its rock layers, this is an example of:  
a. destructive forces                      b. crystallization                      c. constructive forces                      d. melting