

Rock Webquest

All links can be found on the blog, or you can type them in manually.

Part 1: Igneous Rocks

A: <http://scienceviews.com/geology/igneous.html> and answer the questions below:

1. The term "igneous" comes from the Latin "ignis" which means _____.
2. What is the difference between magma and lava? _____
3. Use the information in the article to fill in the chart below:

Type of Rock	Magma or Lava?	Inside Earth or Outside Earth	Texture (Grain size)
Intrusive			
Extrusive			

B: <http://www.sciencekids.co.nz/sciencefacts/earth/igneousrocks.html>

4. According to this site, how many different types of igneous rock are there?

5. How does pumice form? _____
6. The upper section of the Earth's crust is made of ____% Igneous Rock.

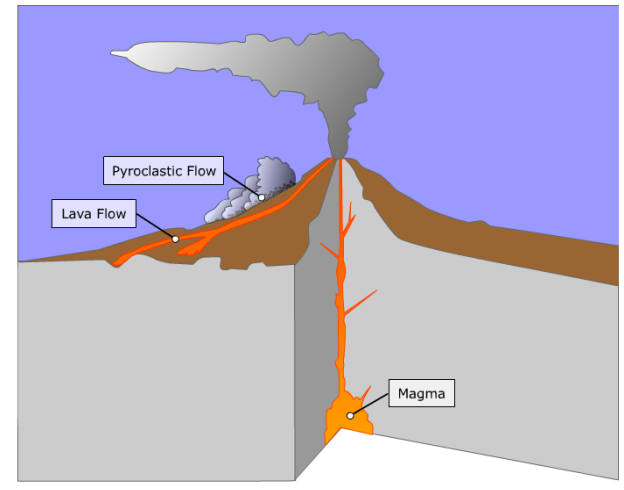
C: http://www.classzone.com/books/earth_science/terc/content/investigations/es0603/es0603page01.cfm

Fill in the chart below after examining the rock samples:

7.




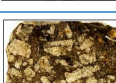


Sample	#1	#2	#3	#4
Grain Size				
Color				Dark (mafic)
Other features		Smooth, glassy		

On page 5 of the simulation click on each of the pictures for information about crystal formation and fill in the blanks below:



8. Pyroclastic flow: Quick cooling results in _____ crystals surrounding the _____ crystals.
9. Lava flow: Quick cooling results in many _____ crystals. Gases bubbling out of the lava form _____ in the rock.
10. Magma: _____ cooling results in _____ _____ crystals.

On page 6 of the simulation, use the knowledge you have obtained to fill in the information about each igneous rock sample:

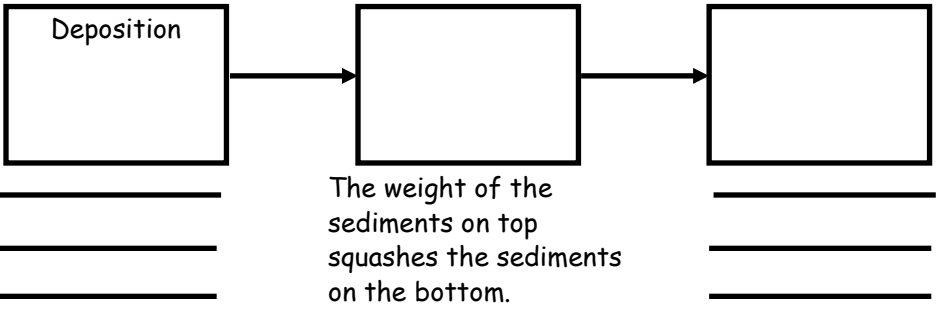
Rock Sample	Cooling Rate:	Environment:
1. 		
2. 		
3. 		
4. 		
5. 		
6. 		

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Part 2: Sedimentary Rock

D: http://www.bbc.co.uk/bitesize/ks3/science/environment_earth_universe/rock_cycle/revision/3/

1. Fill in the FLEE map below with information about the formation of sedimentary rock.



2. Four examples of sedimentary rock are: _____

3. In sedimentary rock the _____ layers are at the bottom and the _____ layers are at the top.

4. Sedimentary may contain the remains of organisms that were once alive. These remains form _____.

E. Go to: <https://ees.as.uky.edu/sites/default/files/elearning/module07swf.swf>

5. What is **weathering**? _____

6. Watch the different simulations. What are some ways that **mechanical weathering** can occur? _____

F: http://www.glencoe.com/sites/common_assets/science/virtual_labs/E06/E06.swf

Click on the different weathering effects and fill in the CHART on the NEXT PAGE with your observations. The first one has been done for you as an example.

Click on "LABELS ON" to see the labels!

Scene Number	Weathering Effect	Before Weathering	After Weathering
1	Water	Limestone and sandstone	Stalactites and Stalagmites form
1			
2			
2			
3			
3			
4			
4			

G: <http://studyjams.scholastic.com/studyjams/jams/science/rocks-minerals-landforms/sedimentary-rocks.htm>

Go to the Study Jams test for Sedimentary rock. You can view the slideshow first if you want to, or try the test first.

8. What was your score on the test? ____/7= _____%

If you got questions wrong, what were the topics you struggled with?

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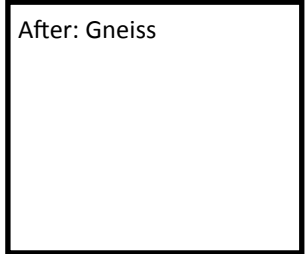
Part 3: Metamorphic Rock

H: https://classzone.com/books/earth_science/terc/content/visualizations/es0607/es0607page01.cfm

1. Draw the "before" picture, play the simulation and then the "after" picture



Before: Diorite



After: Gneiss

2. _____ and _____ cause diorite to metamorphose into gneiss.

I: <http://www.onegeology.org/extra/kids/metamorphic.html>

Use the information on this page to help you to answer the questions/fill in the blanks:

3. Metamorphic rock forms from _____.

4. Examples of metamorphic rock are _____, _____, and _____.

5. The coast of what country is made of metamorphic rock? _____

J: http://www.bbc.co.uk/bitesize/ks3/science/environment_earth_universe/rock_cycle/revision/5/

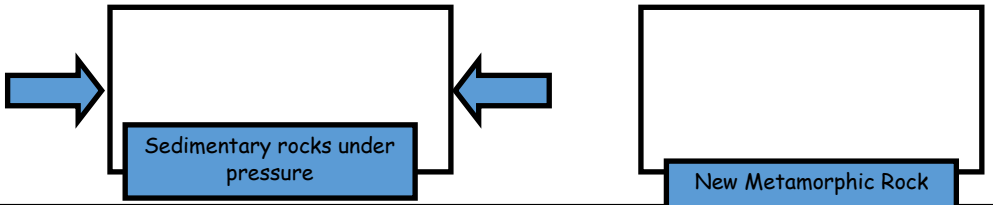
6. Metamorphic rocks are NOT made from _____ rock. Igneous rock is.

7. Metamorphic rocks CAN contain fossils, but the fossils are _____.

8. Metamorphic rocks are made from igneous or sedimentary rock. Marble forms from _____. Slate forms from _____.

K: <http://www.msnuceus.org/membership/html/jh/earth/metamorphic/lesson1/metamorphic1a.html>

9. Copy the diagrams on this page into the boxes below:



Use the internet or your textbook to find out the answers to the following:

10. What temperature (in Degrees Celsius) does a rock have to reach in order to turn into a metamorphic rock? _____

11. What is a foliated metamorphic rock? _____

What are two examples? _____

12. What is a nonfoliated metamorphic rock? _____

What are two examples? _____

13. True or False: Metamorphic rocks form when melting occurs. _____

14. Other than heat, what else can cause metamorphism? _____

15. Research different metamorphic rocks and fill in the chart below:

Rock Name	Forms From (what kind of rock was it before?)	Foliated or Nonfoliated	Common Uses	Other information
Ex: Amphibolite	Basalt, Gabbro, or Graywacke	Weakly foliated	Tiles, buildings, countertops	Sometimes green
Gneiss				
Schist				
Quartzite				
Marble				
Slate				