

Semester 1 Study Guide

Name _____ Period _____

1. List the 4 characteristics of a mineral.

Mohs Hardness Scale

Talc	1
Gypsum	2
Calcite	3
Fluorite	4
Apatite	5
Orthoclase	6
Quartz	7
Topaz	8
Corundum	9
Diamond	10

**Mohs Hardness Scale
Common Objects**

Fingernail	2 to 2.5
Copper Penny	3
Nail	4
Glass	5.5
Knife Blade	5 to 6.5
Steel File	6.5
Quartz	7

2. A mineral will scratch gypsum. What number must the mineral be at the least?

3. A mineral can be scratched by quartz, but the same mineral will scratch calcite. What is the possible hardness of this mineral?

4. True or false: penny will scratch gypsum, but not fluorite. _____
Explain why _____

5.	How is this formed?	Where are these	Important
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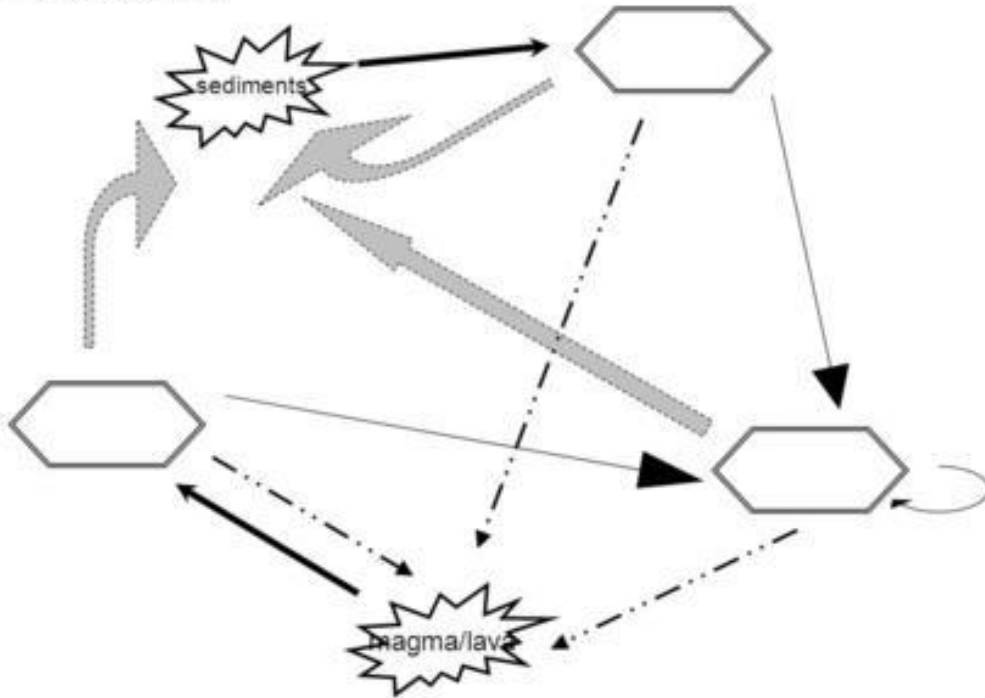
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		formed?	characteristics
Intrusive Igneous			
Extrusive Igneous			
Sedimentary			
Metamorphic			

6. Complete the following rock cycle diagram. The arrows represent the processes by which one rock type becomes a different rock type. Fill in the process that each arrow represents. For example, for sediments to become sedimentary rock, the processes are compaction and cementation.

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THE ROCK CYCLE



7. What
3 forms

of evidence did Wegener gather that supported continental drift?

Don't forget the rules below:

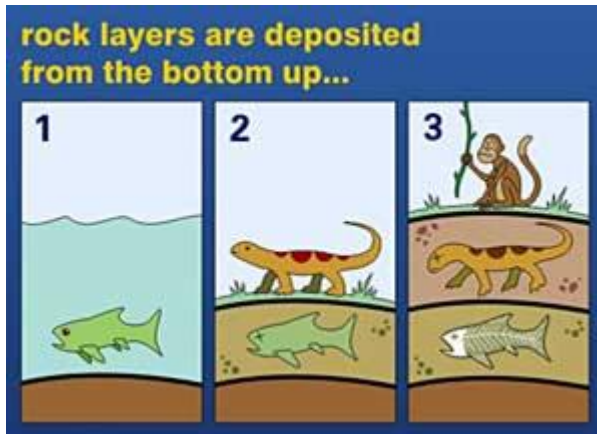
The Law of Original Horizontality

This law of science tells us that dirt, mud, sand and other sediments are almost always deposited in horizontal layers. As these sediments stack up, they often harden, forming rock layers.

The Law of Superposition

Rock layers are usually ordered with the oldest layers on the bottom, and the most recent layers on top. The Law of Faunal Succession explains that fossils found in rock layers are also ordered in this way.

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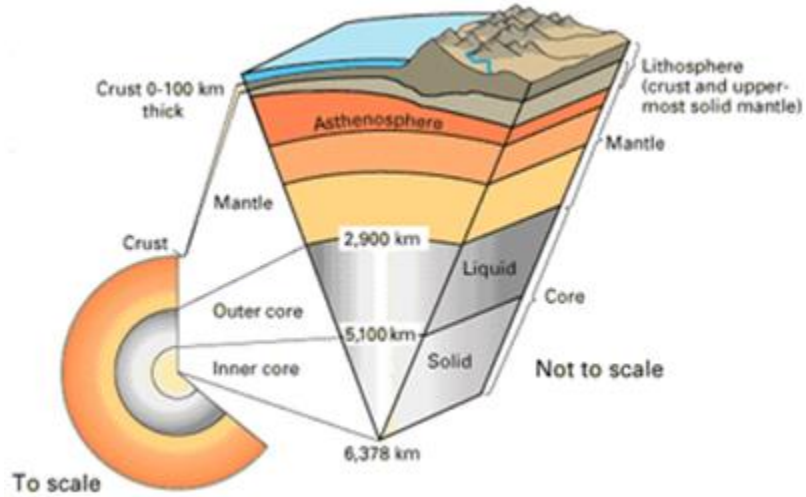
8. What layer was deposited first? Top/middle/bottom? (Circle one) How do you know this?

9. Describe the long-term effects of large volcanic eruptions on Earth.

10. Describe the layers of the Earth:

Layer	State of matter	Composition
Crust		
Lithosphere		
Asthenosphere		
Mantle		
Inner core		
Outer Core		

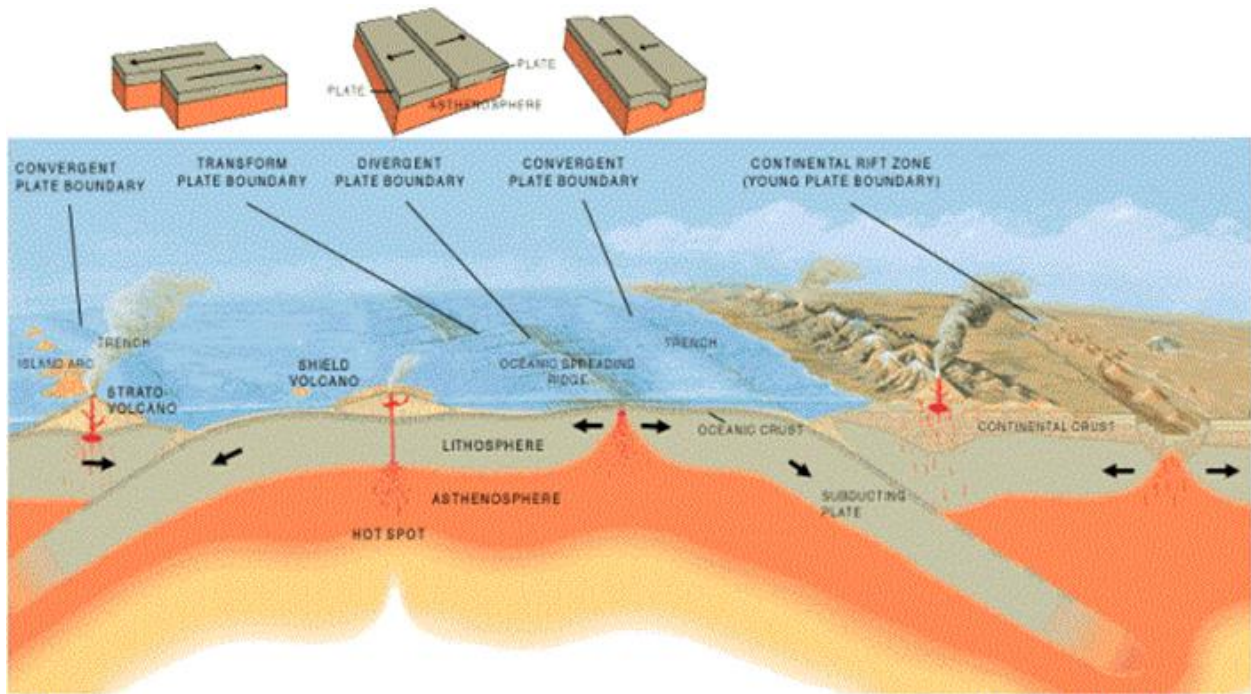
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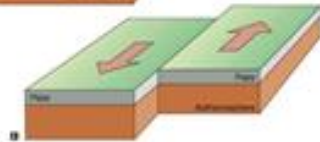
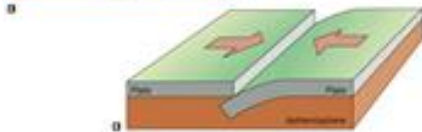
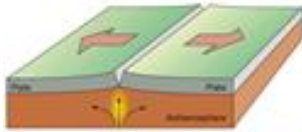
11. What makes the layers of the Earth in this specific order seen above? Why?

12. Describe the three forces that cause lithospheric plate movements.

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13. Label the pictures with the proper plate movement and explain what is happening.



14. Fill in the chart below.

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Type of Boundary	Plates	Movement	Landform	Example
convergent				
convergent				
convergent				
divergent				
Divergent				
Transform				

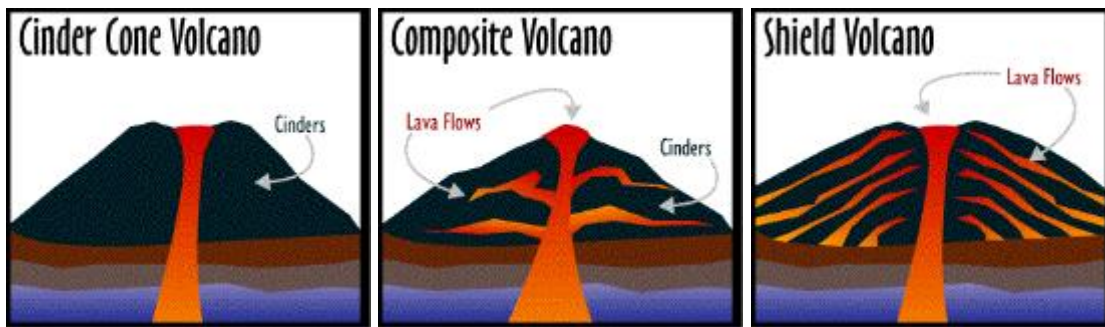
15. Why do volcanoes and earthquakes tend to happen by plate boundaries?

16. Explain how hot spot volcanoes happen.

17.

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Agent of Erosion	Landforms Made
1.	
2.	
3.	



18. Describe how the type of magma erupted by a volcano determines the shape of the volcano and the way it will erupt. Be sure to include specific properties of the magma e.g. chemical composition, gas content, etc.

Cinder Cone _____

Shield _____

Composite _____

19. Describe how triangulation can be used to locate the epicenter of an earthquake.
