

Earth and Life History

Faulting and Igneous Activity

Name:

Period:

This exercise will help you gain a greater understanding of how layers of rock can be changed over time.

Step 1—Get the piece of paper that you will use to make the block model.

Step 2—Color the layers, using the colors listed in the coloring key. The key will end up being on the bottom of your block.

Step 3—Cut out the block model.



Step 4—Fold it and glue it together using a glue stick.

Step 5—Use the completed block to answer the questions below. You can also use Chapter 8, Section 2 of your textbook if you are getting stuck.

1. What rock is on the surface of this block? *Hint: look at your coloring key.*

The rock on top is called _____.

2. Is this rock found only on the top layer of the block? _____

3. What did the basalt have to go up through to get to the surface?

The basalt went through....

4. The basalt had to be very hot to melt its way up to the surface. Which of the 3 types of rock is basalt?

Basalt must be an _____ rock.

5. What is it called when magma flows into other rocks, then cools and becomes solid? *Hint: reread p.241.*

When it flows into other rocks, magma is called an _____.

6. Faults can cause layers of rock to no longer be lined up. What is a fault? *Hint: reread p.241.*

A fault is a _____ in Earth's crust.

7. If a fault goes across layers of rock, what does this tell you about the age of the fault, compared to the age of the layers of rock? *Hint: read the Principle of Cross-Cutting Relationships on the block.*

If a fault cuts across layers of rock, the fault must be _____ than the layers.

8. How does the age of the igneous intrusion (the basalt) compare to the fault? *Hint: look at the block.*

The igneous intrusion must be _____ than the fault, because it crosses the fault.

9. In the space below, number events from *oldest* (1) to *most recent* (5).

_____ fault disturbed layers _____ sandstone layer formed _____ granite crust formed
_____ basalt intrusion occurred _____ shale layer formed