Earth Science Name: _____

Modeling Sea Floor Spreading Follow Up

1.) What part of the ocean floor does the center slit represent?

_____

2.) What part of the ocean floor do the side slits in the model represent? What process is happening here?

_____

_____

3.) What do the stripes on the strips represent? What do the colors represent?

_____

4.) How do the model "rocks" closer to the center slit differ from the model "rocks" closer to the side slits?

_____

_____

5.) Why is it important that your model have identical patterns of stripes on both sides of the center slit?

_____

_____

6.) What causes the plates to be pulled apart?

_____

7.) Explain the roles of differences in density and temperature in sea floor spreading?

_____

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8.) Use your observations from this lab to define, in your own words, the process of sea-floor spreading and subduction.

_____

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_____

9.) Over time, what would happen to an underwater island that forms near a mid-ocean ridge?

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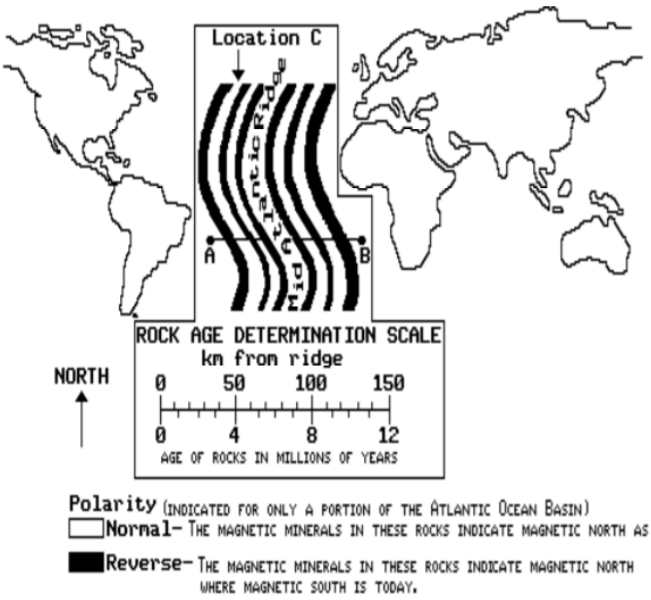
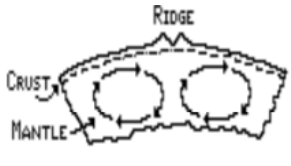
The diagram below shows an enlargement of mid-Atlantic ridge and surrounding in its position with respect to the continents. Magnetic polarity bands of igneous rock parallel to the ridge illustrated according to the key.

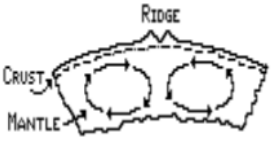


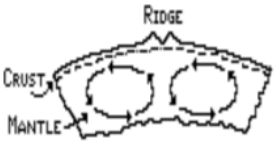
1.) What are two characteristics of ocean floor rock found at location C?
   a. reverse polarity, continental composition
   b. normal polarity, oceanic composition
   c. reverse polarity, oceanic composition
   d. normal polarity, continental composition

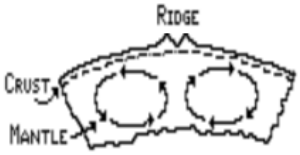
2.) Ocean floor rock found 20 kilometers west of the ocean ridge would have an approximate age of
   a. 1.6 million years
   b. 2.0 million years
   c. 15 million years
   d. 30 million year

3.) Which of the cross-sectional diagrams below best represents a model for the movement of rock material below the crust along the mid-Atlantic ridge?

a. 

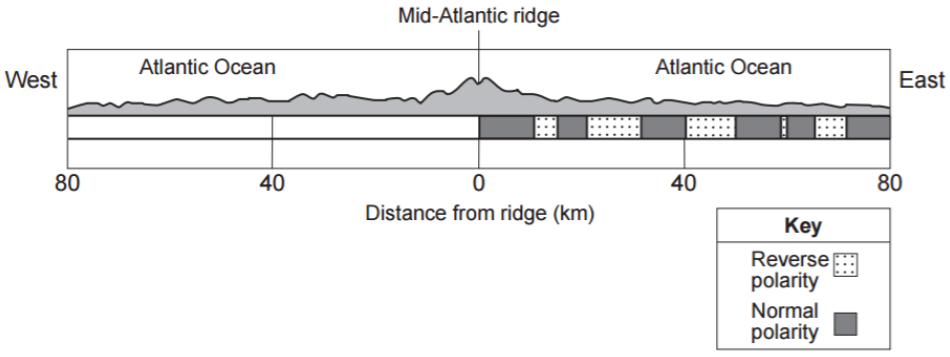
b. 

c. 

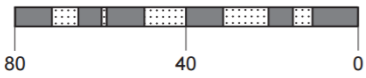
d. 

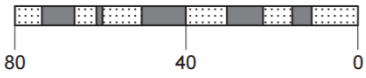
4.) Along the line from position A to position B, the comparative age of the rock
   a. Continuously decreases from A to B
   b. Continuously increases from A to B
   c. Increases from A to the mid-Atlantic ridge and then decreases to B
   d. Decreases from A to the mid-Atlantic ridge and then increases to B

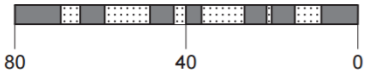
5.) The cross section below represents a pattern of magnetic field reversals preserved in the igneous bedrock of the oceanic crust east of the Mid-Atlantic ridge?



Which cross section best represents the magnetic field pattern west of the Mid-Atlantic ridge?

(1) 

(2) 

(3) 

(4)