

Science Tectonic Plates: Vocabulary Exercise

Name: _____
 Date: _____
 Total: /20pts

VOCABULARY WORDS		
Pangea continental drift mid-ocean ridge seafloor spreading normal polarity magnetic reversal reversed polarity	plate tectonics lithosphere subduction convection ridge push slab pull	divergent plate boundary C boundary convergent plate boundary a) ocean to continent b) continent to continent

Fill in the blank with the best vocabulary word or phrase. (4pts)
 Neatly draw a line to match the statement to one of the drawings on the right. (4pts)

1. Earthquakes are common along a:

TRANSFORM PLATE BOUNDARIES

2. Two plates separate, and create new oceanic crust at a:

DIVERGENT PLATE BOUNDARIES

3. Two separate plates collide, and both plates are equally dense at a:

CONVERGENT PLATE BOUNDARIES: continent to continent

4. A denser plate subducts under a less dense plate at a:

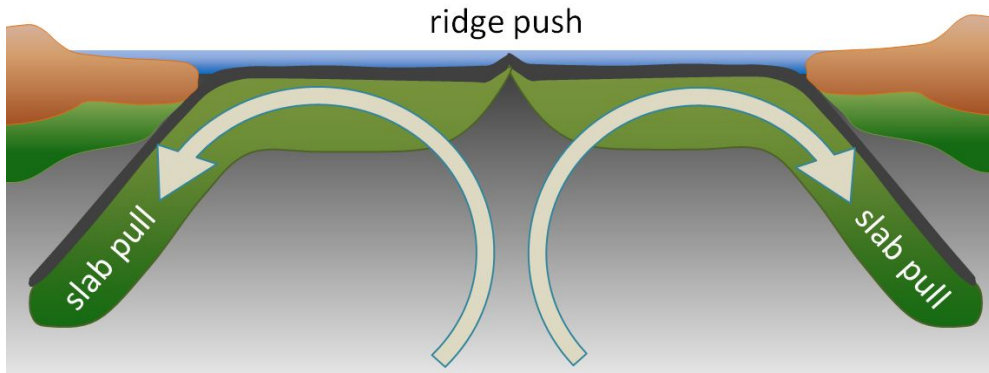
CONVERGENT PLATE BOUNDARIES: ocean to continent

5. What is the lithosphere? (2pts)

THE COLD OUTER LAYER OF EARTH'S CRUST



6. Use the diagram below to help explain how slab pull, ridge push, and convection work. (3pts)



Slab pull: BECAUSE THIS LAYER IS DENSER, THERE IS MORE GRAVITATIONAL PULL, SUCKING IT DOWNWARDS.

Ridge push: THE HOT MAGMA, IS TRYING TO ESCAPE, AND PUSHING THROUGH THE CRACK IN EARTH'S CRUST. THIS PRESSURE IS PUSHING THE RIDGE OUTWARDS TOWARDS THE CONTINENTS.

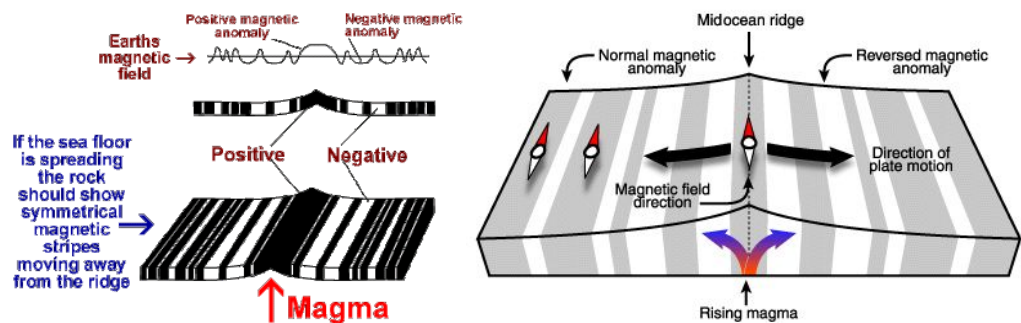
Convection: CONVECTION IS A CURRENT OF HOT AIR. AT THE CENTER OF EARTH, IT IS HOTTER, AND THE LIQUID (MAGMA) RISES TOWARDS THE SURFACE. AT THE SURFACE THE CURRENT COOLS AND IS PULLED ALONG THE SIDES, BACK TOWARDS THE MIDDLE OF THE EARTH AGAIN.

7. What is Pangaea? (2pts)

PANGAEA IS A THEORY THAT THERE WAS ONCE A SUPERCONTINENT, MADE OF ALL THE CONTINENTS WE HAVE TODAY. THROUGH CONTINENTAL DRIFT, THESE PLATES BROKE APART AND DRIFTED TO THEIR CURRENT POSITIONS ON EARTH.

8. The first evidence to support the theory of seafloor spreading was discovered in rocks on the sea floor. Using three vocabulary words to explain this theory. Make a drawing if necessary. (5pts)

normal polarity
magnetic reversal
reversed polarity



Bonus

Two plates in the South Pacific separate at a rate of 15 cm/y. How far will they have separated after 5000 years?

$$15 \times 5000 = 75,000 \text{ CM}$$