

Investigating the Earth's crustal plates by studying earthquakes and volcanoes.

INTRODUCTION:

The data below represent worldwide earthquake and volcano locations given by their latitude and longitude. The goal of this investigation is to map the locations of these tectonic events to see what relationships can be deduced.

MATERIALS:

- world map
- colored pencils (2)
- or thin markers

PROCEDURES:

Using a world map and two different color pencils, plot the location of each earthquake in one color and each volcano in the other color.

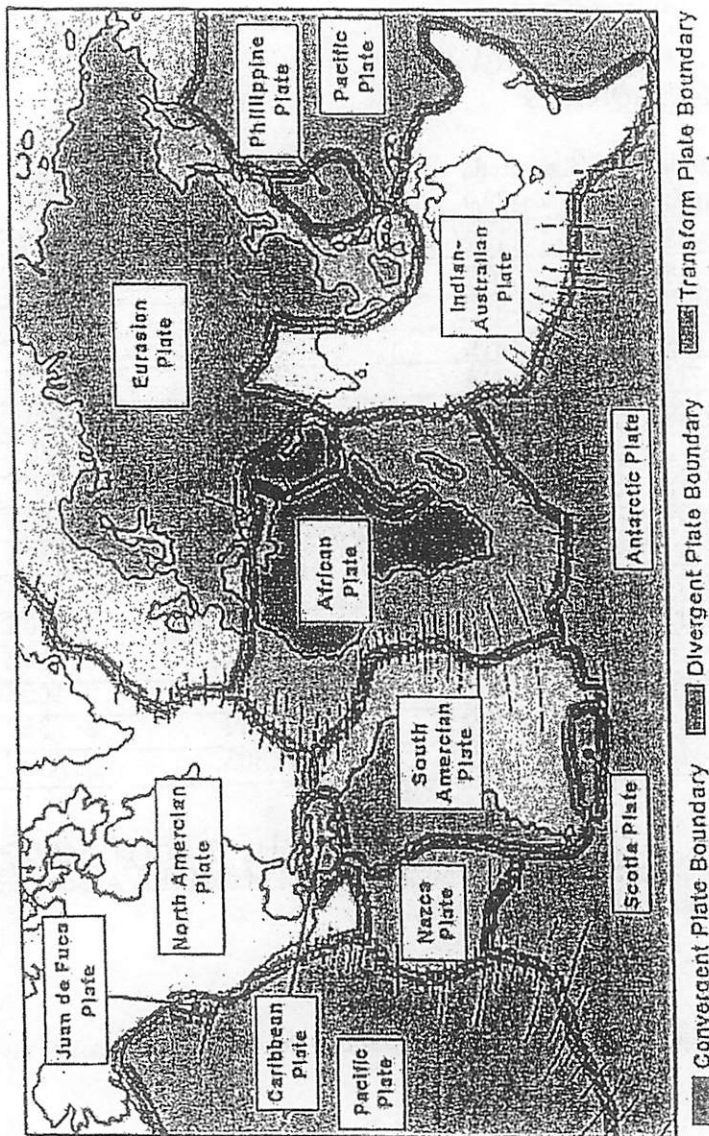
*DATA:*  
*Hint*  
*Check*  
*them*  
*off*  
*as you*  
*go!*

<i>your color choice</i> EARTHQUAKES		<i>your color choice</i> VOLCANOES	
$^{\circ}$ Latitude	$^{\circ}$ Longitude	$^{\circ}$ Latitude	$^{\circ}$ Longitude
40N	120W	60N	150W
5S	110E	35S	70W
4S	77W	45N	120W
23N	88E	15N	61W
14S	121E	20N	105W
7N	34E	0	75W
44N	74W	40N	122W
30S	70W	40N	30E
45N	10E	30N	60E
13N	85W	55N	160E
23N	125E	3S	37E
35N	30E	40N	145E
35N	140E	10S	120E
46N	12E	41N	14E
28N	75E	5S	105E
61N	150W	15N	35E
47S	68W	30S	70W

*sences... "*

ANALYSIS:

- \* ① Look at the distribution of earthquakes and volcanoes over the surface of the Earth. Are they scattered at random or are they concentrated in zones? Describe your observations. *\* Write out answers in complete sentences...*
- \* ② Look at the distribution of earthquakes and volcanoes in relation to the continents. Describe their position compared to the continents.
- 3. Using the reference map, draw the major crustal plates of the Earth on your world map. Label the names of the plates neatly. *Use map on the back - use pencil, first, to draw plates. Then go over it in marker. Write names out and highlight next page.*
- \* ④ Look at the distribution of earthquakes and volcanoes in relation to the plate boundaries. Are they scattered all over the plates or is there a pattern? Describe.



- Volcanoes
- Earthquake's
- Plate Boundaries

MAP OF WORLD EARTHQUAKES & VOLCANOES

Name \_\_\_\_\_ Period \_\_\_\_\_

