

Name: _____ Period: _____ Date: _____

Plate Tectonics, Volcano and Earthquake Webquest

Objective: Learn and explore the ins and outs of Plate Tectonics, Volcanoes, and Earthquakes.

Instructions: Go to each of the websites indicated below. Answer the questions or complete the requested responses about each of those sites. Make sure your explanations to the answers as complete as possible.

Plate Tectonics

1. What are **Plate Tectonics**? <http://www.livescience.com/37706-what-is-plate-tectonics.html>

a. Read the follow article and use the space below to define and describe Plate Tectonics.



b. Who proposed the idea of plate tectonics/continental drift?

c. What are the driving forces behind plate tectonics? Explain in detail.

2. Use the following website to describe each of these topics. Click on the picture to see them. Use the space to describe each. http://earthguide.ucsd.edu/eoc/teachers/t_tectonics/t_tectonics.html

a. Earth's Internal Convection

b. Seafloor Spreading (key process #1)

c. Subduction (key process #2)

Earthquakes

3. What is an Earthquake? <http://eschooltoday.com/natural-disasters/earthquakes/what-is-an-earthquake.html>

a. Read the follow website and use the space below to define and describe what an earthquake is.

b. Click "Next" and describe the following:

i. Under Faults describe Hypocenter:

ii. Under Faults describe Epicenter:

iii. Seismograph:

iv. Richter Scale:

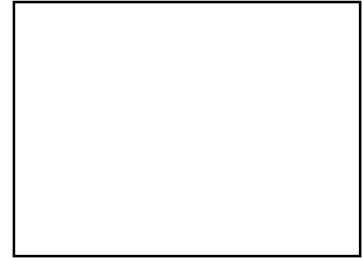
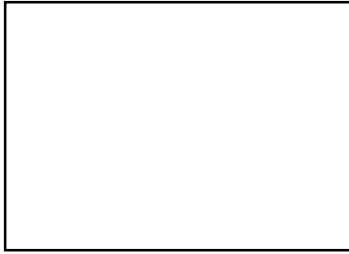
v. Ring of Fire:

c. Click "Next". Fill in the gaps to learn how **Earthquakes form**.

- i. Earthquakes develop in the _____ of the earth. The inner part of the earth contains massive _____. Some of this energy escapes through _____ and other volcanic activity, but the bulk of it is _____ within the earth's inner part, contained in the crust.
- ii. The earth's outer crust is held in place like a completed _____, with rough edges and lines. The energy stored here causes the pieces to slide, glide, knock and move around each piece. These pieces best describe what we call '_____'.

- iii. After a period of time, the built up energy and movement causes huge _____ in the plates, and there is massive _____ on the fault lines. This intense pressure resulting from energy build up causes the fault lines give way, and plates move over, against or apart from each other.
- iv. There is an _____ at this point. In the form of _____ (like water ripples) the escaping energy radiates _____ from the fault in all directions. The seismic waves shake the earth as they _____ through it. When the waves reach the earth's surface, they shake the _____ and anything on it, tearing down houses and structures.

- d. Click "Next. What are the **types** of earthquakes?
i. Draw and describe each in the boxes below.



- e. **Earthquake Waves:** What are the two types of **Seismic Waves**? Draw and describe each.

P-Waves (Primary Waves)

S-Waves (Secondary Waves)

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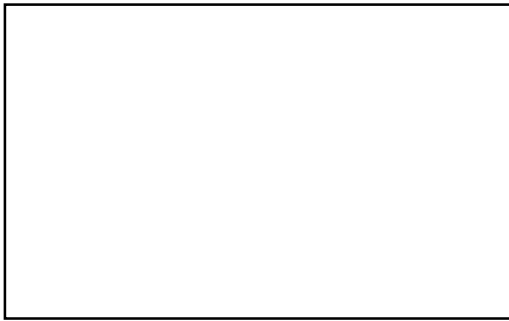
- f. Click "Next". Describe a **Tsunami**.

- g. Click "Next". Describe how we can **prepare** for an earthquake.

Volcanoes

4. What is a **Volcano**? <http://eschooltoday.com/volcanoes/what-is-a-volcano.html>
- a. Read the follow website and use the space below to define and describe what a volcano is.
- b. Where do volcanoes occur?
- c. Click "Next". **Describe Why Volcanoes Erupt?**

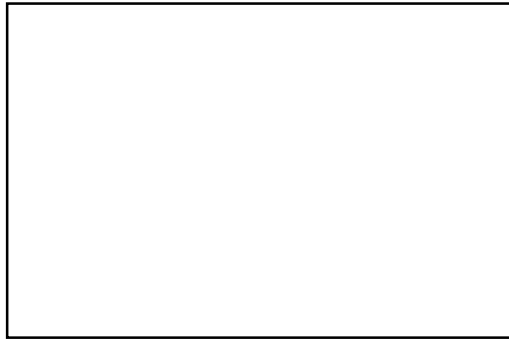
d. Click "Next" Using the following boxes draw and describe the **Common Types of Volcanoes**.



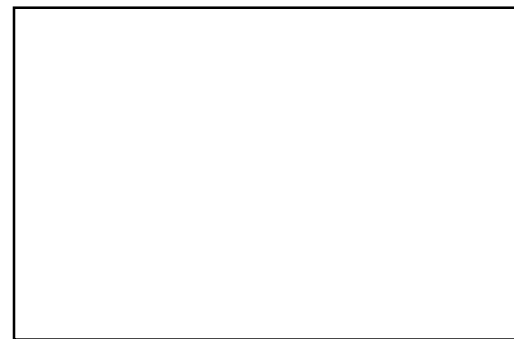
Shield Volcano



Lava Domes



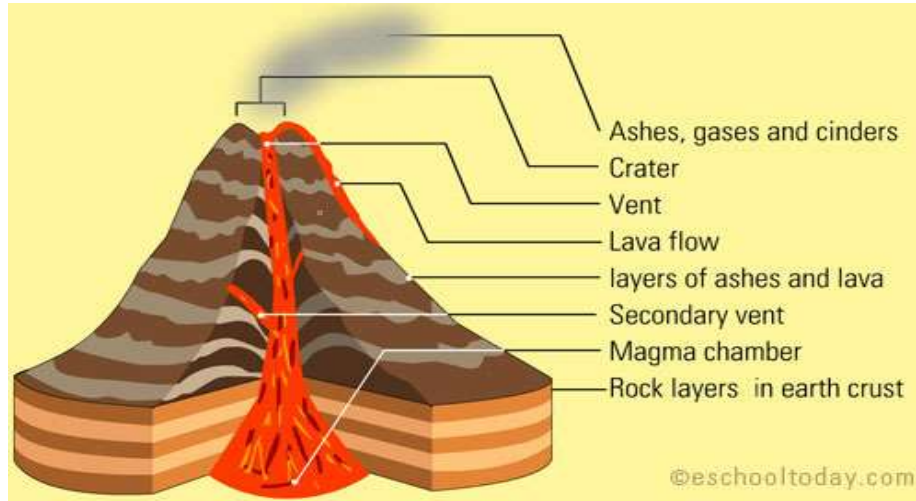
Cinder Cone Volcano



Composite

e. On the left side click "Inside a volcano". Briefly describe the meaning of each

Magma Chamber:
Crater:
Main vent:
Secondary vent:
Ashes, clouds and cinders:
Layers of ash and lava:



f. Click "Next". The effects of volcanic Eruptions. Describe 3 of each.

Negative Effects

Positive Effects

1.	1.
2.	2.
3.	3.

g. **Volcanic Hot Spots** <http://www.kidsgeo.com/geology-for-kids/0048-volcanic-hot-spots.php> Use the space below to describe hot spots. What are they? Where do they occur? What are examples of them we have on earth today?

What are they?	Where do they occur?	Examples:

5. Lastly, go to the following website: <http://www.bbc.co.uk/science/earth/>
Click on the Volcano and Earthquakes titles and watch some of the clips on each. List the title and a brief explanation of each.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

