

Earthquakes, Volcanoes, Islands and the Rock Cycle

EARTHQUAKES:

<http://earthquake.usgs.gov/learn/kids/eqscience.php>

1. What is an Earthquake?
2. Draw a sketch of the fault plane relative to the epicenter and hypocenter.
3. What causes an earthquake?
4. What causes the Earth to shake during an Earthquake?

VOLCANOES:

<http://environment.nationalgeographic.com/environment/natural-disasters/forces-of-nature/>

- In the large gray box, click on the second icon – volcanoes (upper left corner)
- Use the information to answer the questions below. Click on the numbers above the picture to advance to the next screen.

What is a Volcano?

- 1) Define **volcano** –
- 2) How many volcanoes are active today? Where are the vast majority of volcanoes found?
- 3) Name three positive effects of volcanoes.

How do Volcanoes Form?

- 1) When are island-arc volcanoes formed? What type of geologic formation can they create?
- 2) What causes an **intraplate volcano**? Give an example (see map)
- 3) What types of volcanoes are formed at spreading centers? How does this occur?
- 4) How does subduction create volcanoes? Where can subduction volcanoes be found?

How do Volcanoes Erupt?

- 1) When does an eruption begin?
- 2) What determines if an eruption will be explosive or nonexplosive?
- 3) A volcano can erupt in many different ways. Describe two.

ISLANDS:

<http://www.marinebio.net/marinescience/02ocean/hwgeo.htm>

1. What is a geologic “hot spot”?
2. Describe IN DETAIL how the Hawaiian Islands were formed?
3. Is volcanism active today? Describe the history of active volcanoes in Hawaii.

Drawing the Rock Cycle:

- Go to the following website <http://www.learner.org/interactives/rockcycle/diagram.html>
- Click on the Rock Cycle Diagram.
- “Draw” the cycle.