



Why does PW have earthquake drills?



Plate Tectonic Theory explains why Ottawa and Paris are getting farther apart, why there may be more Hawaii Islands in the future and why parts of California may be visible from Tofino.

Owning my learning: The learning intentions or goals for the unit are listed below. Completing this table can help you determine what you know and the level to which you know it. Place a check mark in the box that best describes your learning level at the beginning of the learning and after we have learned together. The columns are numbered 1 to 4 to indicate the following levels of proficiency:

- | | | | |
|----------------|-----------------------------|--------------|-------------------------|
| 1 Emerging | "I'm just getting started." | 2 Developing | "I get some of it." |
| 3 Accomplished | "I get it." | 4 Extending | "I can teach a friend." |

Be honest with yourself as you complete the checklist to filter what you know from what you don't know and remember to study efficiently and effectively, study what you don't know.

I Can Use:

- | 1 | 2 | 3 | 4 | |
|-----------------------|-----------------------|-----------------------|-----------------------|--|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | a scaled map of the Atlantic Ocean floor to determine the rate at which the sea-floor is spreading |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | a scaled map of the Hawaiian Islands to determine the direction and rate at which the Pacific Plate is moving |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | a geological time line to determine the length of eras, periods and epochs as well as when significant changes in Earth's history occurred |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | map symbols to determine the type of plate boundary and the direction of plate movement |

I Can Describe:

- | 1 | 2 | 3 | 4 | |
|-----------------------|-----------------------|-----------------------|-----------------------|--|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | evidence for the Theory of Continental Drift (6 pieces) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | evidence for the location of plate boundaries (4 pieces) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | evidence for the Theory of Plate Tectonics (3 pieces) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | a geological hot spot |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a divergent plate boundary on the sea floor |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a divergent plate boundary on land |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a convergent plate boundary when oceanic and continental plates meet |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a convergent plate boundary when 2 oceanic plates meet |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a convergent plate boundary when 2 continental plates meet |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | geological features associated with a transform fault |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | 3 types of volcanoes (rift eruptions, composite cones and shield volcanoes) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | damage causing events associated with earthquakes |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | the Richter Scale |

I Can Determine:

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

the relative age of rock by its distance from a spreading ridge
the type of volcano from the type of plate boundary
the epicenter of an earthquake using data from 3 seismographs and a travel-time graph

I Can Define:

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

tectonic plates
seismology
seismogram and seismograph
seismometer

I Can Identify:

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4 layers in the Earth's crust
P, S and L waves on a seismogram

I Can Explain:

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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the difference between Continental Drift and Plate Tectonics
the relationship between paleomagnetism and the age of rocks on the Atlantic Ocean floor
the relationship between seafloor spreading and the Mid-Atlantic Ridge
the difference between continental and oceanic crust
the difference between the lithosphere and asthenosphere
the movement of Earth's plates using ideas of convection currents, slab pull and ridge push
why some types of volcanic eruptions are more explosive than others
the difference between the focus and epicenter of an earthquake
the difference between P, S and L waves in terms of their movement through or on the Earth, speed and amount of damage

I Can Classify:

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

a volcano as either shield, composite (strato) or rift eruption from a picture or diagram



Science – Mrs. Greig