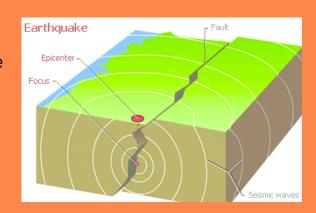


### SAM, LUCAS, TEIA

## WHAT CAUSES EARTHQUAKES?

Earthquakes happen along the fault lines of the Earth's crust, where the tectonic plates meet. When the plates grind against each other, they begin to get stuck and pressure between the two plates will build up. The amount of pressure was built up will determine the force of the earthquake.





# HOW DO EARTHQUAKES EFFECT THE EARTHSYSTEMS?

#### **Atmosphere**

Earthquakes release methane from pockets in the ground, contributing to the greenhouse effect. The methane gets to the atmosphere by movement of tectonic plates.

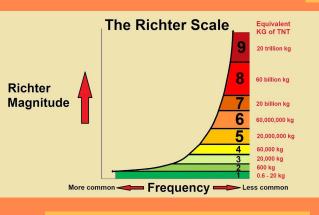
Hydrosphere

Aquifers, which are an underground layer of permeable rock that contains groundwater, can be disturbed by earthquakes. Confined aquifers are more likely to become deformed by the movements of an earthquake, both confined and unconfined aquifers, when affected, groundwater levels can change.

#### Biosphere

The shaking of earthquakes can result in structures and flora to collapse, alterations to environments can occur, such as creations of new springs and lakes caused by ground breakage.

#### HOW EARTHQUAKES ARE MEASURED



HOW EARTHQUAKES
CAN TRIGGER OTHER
DISASTERS

The Richter Scale is used to measure the magnitude of earthquakes. The lowest is 1 and there is no upper limit. The most severe earthquake ever recorded occurred in Chile with a rating of 9.5.

Seismographs are tools used to measure earthquakes.
They record ground motion caused by seismic waves,
There is a worldwide network of seismographs
constantly recording seismic waves.

#### **TSUNAMIS**

Earthquakes can rupture the sea floor causing tsunamis. In 2004, an earthquake triggered a dangerous series of waves that killed over 200,000 people in 11 countries.

over 200,000 people in 11 countrie

VOLCANIC ERUPTIONS

#### VOLCANIC EROFIIONS

The motion and built up pressure from earthquakes can trigger a volcanic eruption.

#### LANDSLIDES

When plate tectonics move so does the soil on top. Sometimes this soil can move away from the ground, causing a landslide.