

- a. Earthquakes can cause damage, injury and death.
- b. Most injuries and fatalities are by buildings falling on people and related events.
- c. Scientists can make long-term predictions for certain areas of crustal activity.
- d. Planning for earthquakes is important since earthquakes cannot be accurately predicted.
 - i. "Drop, cover and hold"
 - ii. Drop down under a strong desk or table.
 - iii. Turn away from the windows.
 - iv. Cover your eyes with one hand and hold on to the table with the other.
 - v. Communities can have earthquake drills at home, work and school

VI. Tsunami

- a. Tsunami - a large wavelength ocean wave produced by a disruption on the ocean bottom.
- b. Disruptions: faulting, volcanic eruptions and landslides.
- c. A tsunami can lead to huge waves hitting the shoreline causing building damage, injury and death.

VII. Volcanoes

- a. Volcano - a mountain composed of extrusive igneous rocks
- b. A volcanic eruption is the giving off of gases, lava and/or lava rock onto the Earth's surface.
- c. Volcanoes are considered to be a natural disaster because it is a natural event and buildings can be destroyed and people can be injured or killed.
 - i. Tephra - falling rock from an eruption
 - ii. Lava can reach 1000 degrees Celsius.
 - iii. Ash lands on glaciers, melting the ice and causing mudslides.
 - iv. Gases emitted by volcanoes can cause immediate death.
 - v. Can cool the Earth's surface temperature
- d. Because magma moves upward before an eruption, the eruption can be predicted by monitoring:
 - i. The temperature
 - ii. The degree of the mountain slope (getting steeper?)
 - iii. The width of a volcano
- e. Volcanoes occur in areas of crustal boundaries where the land is pushing up/down (this causes friction and heat.)
- f. Planning for volcanic eruptions: evacuation routes.

***Know how to use and read the P and S wave chart on page 11 of your ESRT.