**Unit 9-Earthquakes**

**Objectives and Vocabulary**

**Objectives:**

* Compare and contrast the epicenter and focus of an earth
* Identify the cause of earthquakes
* Compare and contrast foreshocks and aftershocks
* Differentiate between the three types of earthquake waves, and list the order in which they are received by a seismogram
* Describe the purpose of a seismogram
* Calculate the difference in arrival times of P and S waves by the hour, minute, and second
* Calculate distance to the epicenter of an earthquake by the difference in P& S wave arrival time using a reference table
* Determine the epicenter of an earthquake using a compass, given the distance of the epicenter for three cities
* Explain where most earthquakes occur
* Identify three ways to measure the intensity or magnitude of an earthquake
* Differentiate between the intensity and magnitude of an earthquake
* Describe factors contributing to earthquake
* Identify dangers associated with earthquakes and other natural hazards they may cause
* Design and build a structure that is earthquake proof
* Predict what type of structure withstands earthquakes the best
* Explain the potential for earthquake prediction

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**Vocabulary**

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| Earthquake | Focus | Epicenter | Fault | Elastic rebound hypothesis |
| Afterscock | Foreshock | Seismograph | Seismogram | Surface wave |
| P wave | S wave | Moment magnitude | Richter Scale | Modified Mercalli Scale |
| Intensity | Magnitude | Liquefaction | Tsunami | Seismic gap |