Earthquake Early Warning Student Sheet Answer Key

Please note that this key contains potential student responses. Answers will vary.

Earthquake Basics

An earthquake is **ground shaking.**

It is caused by **pieces of earth called plates moving and getting stuck together because of friction. When they suddenly lurch past each other, energy is released and shaking is felt.**

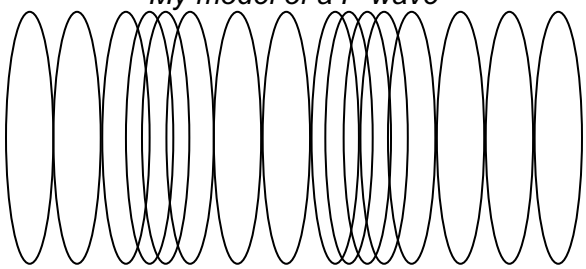
Earthquakes are Waves of Energy

Seismic waves are **waves of energy traveling through the earth that are produced by earthquakes and can move objects.**

P-waves **move back and forth. They send energy in the same direction as the spring by compressing or stretching it.**

Their speed is **faster than S-waves.**

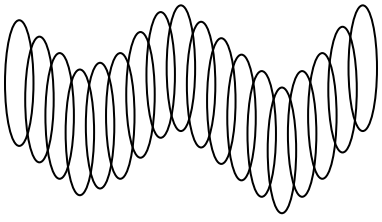
My model of a P-wave



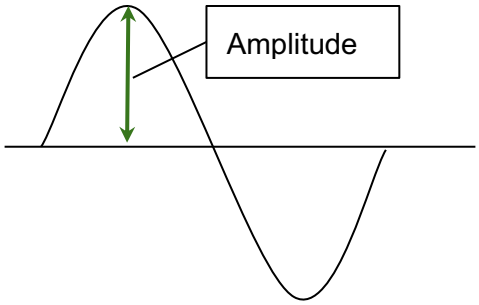
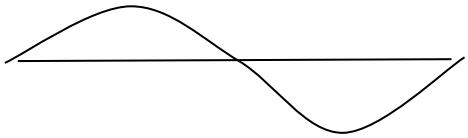
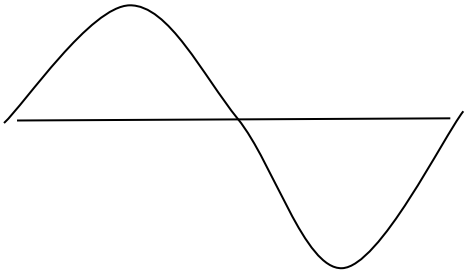
S-waves **move up and down. They send energy in the same direction as the spring by stretching the spring away from its center.**

Their speed is **slower than P-waves.**

My model of an S-wave



Seismic Waves with Different Amounts of Energy

Wave amplitude is **the height of the wave.**	
Draw a wave with a low amplitude. 	Draw a wave with a high amplitude. 
How does the amplitude of the wave affect the amount of shaking? The greater the amplitude, the **greater** the shaking. My evidence is **that the tape moved more when the amplitude was greater.**	
How does the amplitude of the wave change as you get farther from the earthquake? The farther you are from the spot where the earthquake started, the **smaller** the amplitude becomes. My evidence is **that the closer the tape was to the person who started the wave, the more it moved. The tape that is farthest from the person who started the wave moved the least.**	

Key Things to Remember

The key things I need to remember to stay safe if there is an alert or if I feel shaking are **Drop, Cover, and Hold On. If I can, I'll try to get away from glass that could break or things that could fall on me.**
The most important thing I learned that I will share with my family is **that we need to have an emergency plan and materials. Also, we should Drop (or Lock), Cover, Hold On if there is ground shaking or if we get an alert.**