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| Name: ***Answer Key - Please note that this key contains possible student responses, and responses will vary.***  |

Earthquake Early Warning - Student Sheet

**Earthquake Basics**

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| An earthquake is \_***ground shaking.*** It’s caused by \_***pieces of earth are*** ***moving, but are stuck together because of friction. When they get unstuck, they suddenly lurch past each other. This releases energy which causes the ground shaking.***  |

**Earthquakes are Waves of Energy**

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

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| 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* |

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| S-waves \_***move up and down (perpendicularly) 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**

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| Wave amplitude is \_ ***the height of the wave.***  | Amplitude |
| 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 further from the earthquake?* The further 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 furthest from the person who started the wave moved the least.***  |

**Key Things to Remember**

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| The key things I need to remember to stay safe if there’s an alert or if I feel shaking are ***Drop, Cover, and Hold On. If you can, try to get away from glass that could break or things that could fall on you.***  |
| 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’s ground shaking or an Earthquake Early Warning alert.***  |