

Unit 2 Handout _____

Lesson 2: Waves and Earthquakes

Purpose: To provide background on the connection between waves and earthquakes.

- Guiding Questions:**
- How is energy from an earthquake transferred?
 - What are the different types of waves generated by an earthquake?

Background. On our previous handout, we observed that waves travel outward from a central point. This is true of earthquakes, too. The focus, or where the zone where rock is displaced to cause the earthquake, of the earthquake is the center of where the waves will travel from. The waves will travel in all directions from that point. Scientists have identified different types of waves and this sheet will help you understand the differences between those waves.

What is a wave?

A wave is one or more of a series of _____ passing along a _____ or through a _____. Waves have certain properties. A wave can travel _____ a _____ without the material itself _____ with the wave. Second, a wave can originate at one point and then travel outward in all directions.

What are the types of earthquake waves?

There are two main categories of earthquake waves: _____ waves and _____ waves. Body waves move through the earth, often _____ to the ground. Surface waves mainly travel at or below the earth's surface (up to 1000km), often _____ to the ground.

There are different types of body waves. One type of a body wave is called a _____. Like sound waves, they compress and expand the material through which they travel. These are known as compression* waves. An easy way to think of this is their action of _____ and _____.

Another type of body wave is called an _____. Rather than compress, these waves cause _____ movement that is perpendicular to the surface of the planet. These are known as transverse* waves.

**You are expected to know the waves as P or S waves. The terms compression and transverse can help you describe them, but don't call the waves by these words.*

Name

Period

Date

Wave Type:	Description	Direction and Action	Drawing
Body P-Wave			
Body S-Wave			
Surface Wave			