Waves: Day 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_ Date: Wednesday, March 22nd

Quick Check

1. T/F: Mechanical waves can travel through space (a vacuum). A) True B) False
2. Sound is an example of which wave? A) EM B) Longitudinal C) Transverse
3. The matter a wave travels through: A) Solid B) Gas C) Medium D) Plasma

VOCABULARY

*Directions: Match each vocabulary word on the left to its definition on the right.*

 1. \_\_\_\_ crest a) pitch (high or low); length of a wave

 2. \_\_\_\_trough b) highest point of a wave

 3. \_\_\_\_ wavelength c) distance between crests/troughs

 4. \_\_\_\_ amplitude d) volume of a wave (1/2 the wave height)

 5. \_\_\_\_ frequency e) when longitudinal waves are close together

 6. \_\_\_\_ rarefaction f) lowest point of a wave

 7. \_\_\_\_ compression g) when longitudinal waves are far apart

* There are two types of Mechanical Waves: Transverse & Longitudinal
* Longitudinal Waves: The motion of the \_\_\_\_\_\_\_\_\_\_\_\_ is parallel to the motion of the wave.

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* + Example: \_\_\_\_\_\_ (seismic) waves are longitudinal.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of these waves are carried back and forth.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are moving in the same direction.
	+ In a longitudinal wave:
		- Compression: When the waves are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- Rarefaction: When the waves are \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Transverse Waves: The motion of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is perpendicular to the motion of the wave.
	+ Example: \_\_\_\_\_ (seismic) waves are transverse.
	+ These waves move \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are not moving in the same direction; they move at a \_\_\_\_\_\_\_\_ angle.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the highest point of a wave and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the lowest point.
	+ Amplitude is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a wave (1/2 the height of a wave). This is measured in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Frequency is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_, or high or low of a wave (the length of a wave). This is measured in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw & Label

Longitudinal

Transverse

Activity: [On the back of this paper] Pick one:

1. [I need to review this more.] Watch the DiscoveryEd video: “What Are the Different Types of Waves?” Then create a Venn Diagram to compare and contrast the two different types of waves.
2. [I’m ready to practice.] Choose one type of mechanical wave. Cut a piece of string about 6-8 inches long and use it to form the type of wave you chose. Glue it down and label the different parts of your wave.
3. [I’m ready for a challenge.] Pick one of the two types of waves and create a word collage picture. Use the vocabulary word to form the picture rather than just drawing the lines. See the example from Ms. George.