Waves Study Worksheet

Grade 8 Science

Name: _____ **Class:** _____

Date: _____

Instructions: Answer all questions to the best of your ability.

Part 1: Match the Words

1. **Wavelength**	A. The lowest point of a wave.
2. **Amplitude**	B. The distance between two consecutive crests or troughs.
3. **Frequency**	C. The maximum displacement from the resting position.
4. **Crest**	D. The number of waves passing a point per unit time.
5. **Trough**	E. The highest point of a wave.

Part 2: Complete the Sentences

Word Bank: (*Transverse - Longitudinal - Compression - Rarefaction - Medium - Energy)*

1. Waves transfer _____ from one place to another.
2. A _____ is required for mechanical waves to travel.
3. In a _____ wave, the particle displacement is perpendicular to the direction of propagation.
4. In a _____ wave, the particle displacement is parallel to the direction of propagation.
5. A _____ is a region in a longitudinal wave where the particles are closest together.
6. A _____ is a region in a longitudinal wave where the particles are farthest apart.

Part 3: Choose the Correct Answer

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1. Which of the following is NOT a type of wave?

   a) Transverse
   b) Longitudinal
   c) Electromagnetic
   d) Solid

2. What is the unit of measurement for frequency?

   a) Meter
   b) Second
   c) Hertz
   d) Watt

3. Which part of a transverse wave is the lowest point?

   a) Crest
   b) Trough
   c) Amplitude
   d) Wavelength

4. As the frequency of a wave increases, what happens to the wavelength?

   a) Increases
   b) Decreases
   c) Stays the same
   d) Becomes zero

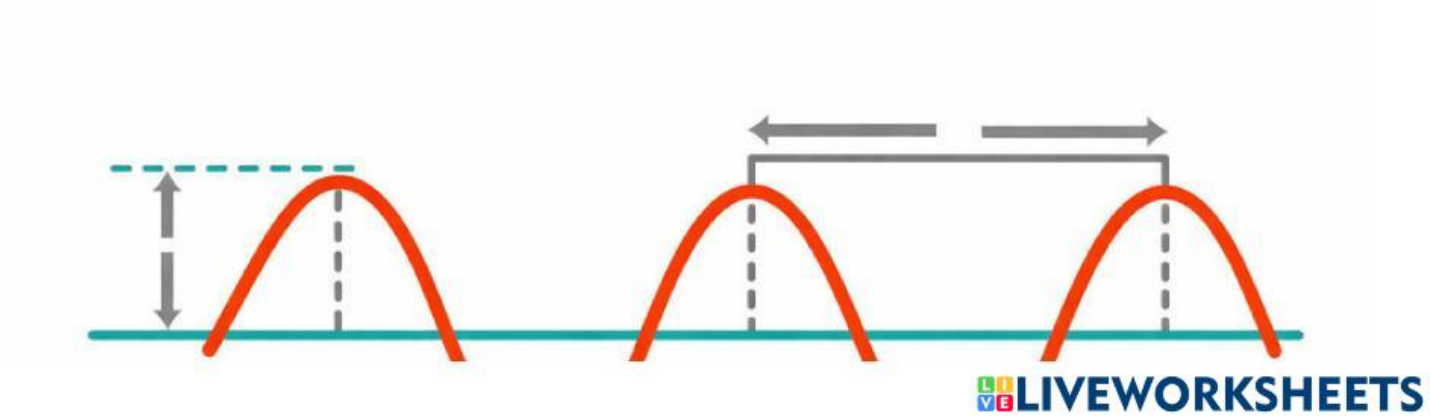
5. Sound waves are an example of which type of wave?

   a) Transverse
   b) Longitudinal
   c) Electromagnetic
   d) Light

Part 4: Label the Wave

Instructions: Label the following parts of the wave using the arrows provided.

(Crest, Trough, Amplitude, Wavelength)



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