



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

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)



