

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Wave Review Worksheet

**Word Bank:** Match each term with the sentence below

Electromagnetic Wave

Medium

Matter

Mechanical Wave

Crest

Compression

Longitudinal Wave

Trough

Rarefaction

Transverse Wave

Energy

Wavelength

\_\_\_\_\_ : The highest point of a transverse wave

\_\_\_\_\_ : The area in a longitudinal wave where the particles are close together.

\_\_\_\_\_ : The ability to move or change an object, or what a wave carries.

\_\_\_\_\_ : A wave that is caused when energy causes a vibration thru a medium.

\_\_\_\_\_ : Type of mechanical wave in which the energy runs at right angles to the wave.

\_\_\_\_\_ : Type of mechanical wave in which the energy flows parallel to the wave.

\_\_\_\_\_ : A wave that can travel through empty space, like light waves

\_\_\_\_\_ : The lowest point of a transverse wave.

\_\_\_\_\_ : Area in a longitudinal wave in which the particles are spread out.

\_\_\_\_\_ : The material through which a mechanical wave travels.

**Review Questions:** Answer each question below

1. What is a *medium*? Give 3 examples.

2. Draw a transverse wave in a string and label all five parts.

3. Draw a longitudinal wave in a spring and label all three parts.

4. Draw a spring in equilibrium.

5. How does a particle in a surface wave move?

6. What is the difference between a mechanical wave and an Electromagnetic wave?

7. What is frequency and how is it measured?

8. Calculate the wave speed of a wave that has a frequency of 5 Hz and has a wavelength of 10 meters. *Show GUESS.*

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9. What is the period of a wave? How is it measured?

10. What is the formula to calculate wave speed? \_\_\_\_\_

11. What increases as amplitude increases? \_\_\_\_\_

12. What do *all* waves carry? \_\_\_\_\_

13. What is reflection? Give an example.

14. What is refraction? Give an example.

15. What is diffraction? Give an example.

16. What are the two types of interference? Which results in a larger wave? Which results in a smaller wave?

17. A wave travels at 13 m/s and the crests are 6 meters apart. How many waves would you see pass you by per second? *Show GUESS.*

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