

Name: Key

Date: _____



GENIUSCHALLENGE

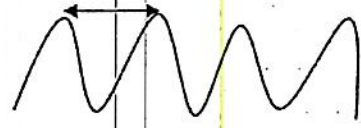
WAVE PROPERTIES

1. What is transferred from place to place by waves? Energy

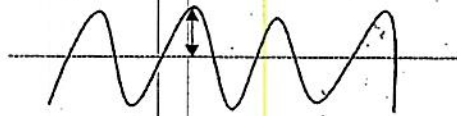
2. True or false: when placed in water, a ball moves from one place to another with the waves.

False

3. What is this called? Wavelength



4. What is this called? Amplitude



5. True or false: longitudinal waves move up and down. False

6. Which of these is true of sound waves?

- a. they only work in air
- b. move in all directions
- c. can be heard in space

7. What is it called when dolphins communicate underwater through sound waves?

Echolocation

8. Fill in the blank using the word(s) increases, decreases, or stays the same.

When energy increases, amplitude increases.

9. Fill in the blank using the word transverse or longitudinal.

Water waves are transverse waves because the wave moves up and down.

10. What moves the pieces of salt on top of the speaker when the music is playing?

Vibrations of air particles

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Own Definition

Definition

Amplitude:

Amplitude: Height of a transverse wave from the center of the crest or trough to the resting position

Wavelength:

Wavelength: Distance between crest (or trough) of one wave and the crest (or trough) of the next wave

Sound Wave:

Sound Wave: Vibrations of air particles that transmit sound.

Transverse Wave:

Transverse Wave: When a wave moves up and down (perpendicular).

Longitudinal Wave:

Ex: water, light, electromagnetic spectrum
Longitudinal Wave: When a wave moves forward and backward (parallel).

Wave Peak (Crest):

Ex: Sound, earthquakes
Wave Peak (Crest): Highest part of a transverse wave

Trough:

Lowest part of a transverse wave

Frequency:

Number of waves passing a given point each second