

Directions: Use the word bank to answer the following questions below. Each word will be used only ONCE.

CREST	VISIBLE LIGHT	LONGITUDINAL	RADIO	GAMMA
TROUGH	FREQUENCY	AMPLITUDE	ULTRAVIOLET	X-RAY
WAVELENGTH	TRANSVERSE	MECHANICAL	INFRARED	

1. The shorter the wavelength between waves, the higher its frequency.
2. mechanical waves NEED molecules in order to transfer the energy.
3. The trough is the bottom part of a transverse wave.
4. wavelength is the distance between one point of a wave to the same point in the next wave.
5. Gamma waves have the highest frequency and carry the most energy.
6. X-Ray waves are a type of energy that can penetrate materials and get a picture of what is located inside. These are used by doctors and security at airports.
7. The motion of a wave that disturbs the medium at right angles (up & down) is called a transverse wave.
8. The crest is the top of a transverse wave.
9. visible light waves are the ONLY energy frequencies humans can see.
10. The amplitude of a transverse wave determines amount of energy at one time.
11. infrared waves (heat) have a wavelength just larger than the color red.
12. ultraviolet waves (cause skin burn) have a wavelength just shorter than the color violet.
13. The wave that has the longest wavelength and lowest frequency is radio waves.
14. longitudinal waves occur when the motion of the medium being disturbed is parallel to the direction of the wave (back and forth motion).

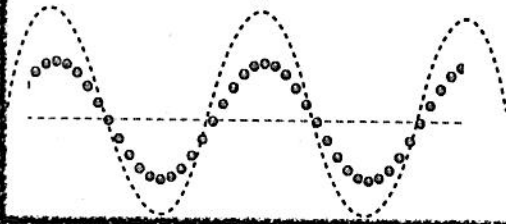
Name: _____

Date: _____

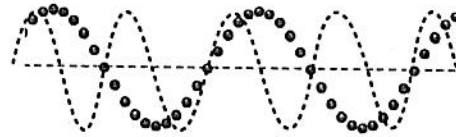
Change the Wave!

Examples:

A. Increase the amplitude:

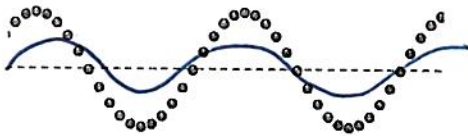


B. Increase the frequency:

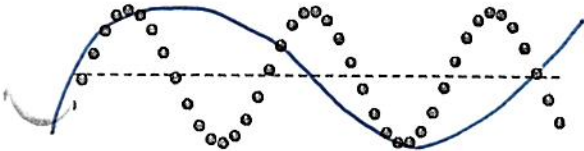


Your Turn!

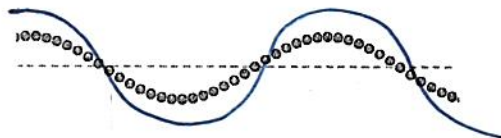
1. Decrease the amplitude:



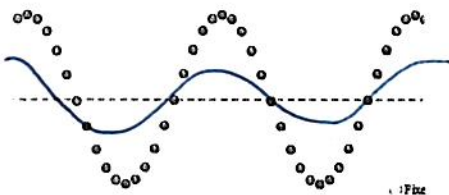
2. Decrease the frequency:



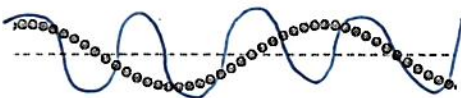
3. Increase the amplitude:



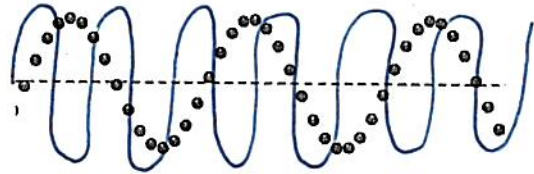
4. Decrease the amplitude:



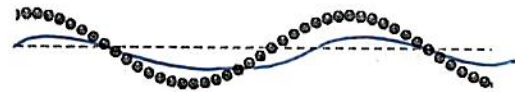
5. Increase the frequency:



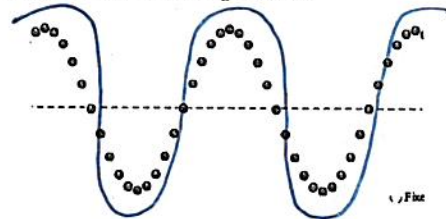
6. Increase the frequency:



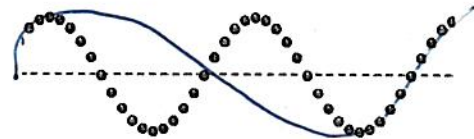
7. Decrease the amplitude:



8. Increase the amplitude:



9. Decrease the frequency:



10. Increase the frequency:

