

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

**Integrated Science I Worksheet: Waves-2**

**20 Pts.**

1. The line below has a scale 1 inch between each has mark. Draw a wave that has a wavelength of 2 inches and repeat this period 3 times. Your wave should start and end on the line. Label the crest, trough, and amplitude of your wave.



2. A wave vibrates 40 times per second and has a wavelength of 0.5mm. What is the ...

frequency: \_\_\_\_\_ use proper units!

wavelength: \_\_\_\_\_ use proper units!

Period: \_\_\_\_\_ use proper units!

speed of the wave: \_\_\_\_\_ use proper units!

3. A wave's frequency increases by 3 times. How does the wavelength change? \_\_\_\_\_
4. A waves frequency increases by 10 times. How does the period change? \_\_\_\_\_
5. X-rays have a much shorter wavelength than microwaves. Which has the higher frequency? \_\_\_\_\_
6. A ship sends a sonar signal to the bottom of the ocean floor. The signal travel 1320m/s. It takes 8 seconds for the signal to return to the ship. How deep is the ocean? \_\_\_\_\_
7. How does the angle of incidence compare to the angle of reflection?

Vocabulary Terms:

Place the number before the term

\_\_\_\_\_ amplitude

\_\_\_\_\_ beats

\_\_\_\_\_ bow wave

\_\_\_\_\_ Doppler effect

\_\_\_\_\_ forced vibration

\_\_\_\_\_ frequency

\_\_\_\_\_ hertz

\_\_\_\_\_ interference

\_\_\_\_\_ longitudinal wave

\_\_\_\_\_ natural frequency

\_\_\_\_\_ period

\_\_\_\_\_ refraction

\_\_\_\_\_ resonance

\_\_\_\_\_ shock wave

\_\_\_\_\_ sonic boom

\_\_\_\_\_ standing wave

\_\_\_\_\_ transverse wave

\_\_\_\_\_ wave

\_\_\_\_\_ wave speed

\_\_\_\_\_ wavelength