Physical Science Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17.2 Review

Allen

1. How is the vibration of the source related to a wave’s frequency?
2. How is wavelength related to frequency for waves moving at constant speed?
3. How is the energy of a wave related to its amplitude?
4. Describe two ways you could measure the wavelength of a longitudinal wave:
5. Describe how you would measure the amplitude of a transverse wave:
6. If a wave’s period doubles, how does the wave’s frequency change?
7. A wave on a rope has a frequency of 3.3 Hz and a wavelength of 1.2 m. What is the speed of the wave?
8. A spring toy vibrates at 2 Hz to produce a wave. What is the period of the wave?
9. A wave on a rope has a wavelength of 2.0 m and a frequency of 2 Hz. What is the speed of the wave?
10. A motorboat is tied to a dock with its motor running. The spinning propeller makes a surface wave in the water with a frequency of 4 Hz and a wavelength of .1 m. What is the speed of the wave?
11. What is the speed of a wave in a spring if it has a wavelength of 10 cm and a period of .2 s?
12. What is the wavelength of an earthquake wave if it has a speed of 5 km/s and a frequency of 10 Hz?