1. Do sound waves carry energy?

2. Do mechanical waves need a medium to transport energy?

3. What is the lowest point on a transverse wave called?

4. How is a wavelength measured?

5. If wavelength decreases, what happens to frequency?

6. What is the unit used to measure frequency? Wave speed? Wavelength?

7. Explain resonance?

8. What type of energy do electromagnetic waves carry?

9. What type of electromagnetic waves are the most energetic?

10. Is the frequency of ultraviolet light lower or higher than visible light?

11. If you put your cell phone in a vacuum jar and someone called you, would you be able to hear it?

12. Does a wave continue to travel when it no longer has energy to carry?

13. If the particles of the medium move only in the same direction as the motion of the wave, it is what type of wave?

14. If you create a wave with a slinky by shaking it really fast and then you start to shake it more slowly, what happens to the wavelength of the resulting wave?

15. If a wave passes a certain point 15 times per second and then it increases to 30 times per second, what happens to the distance between each crest?

16. How is the energy that a wave carries measured?

17. What happens when a wave passes from a less dense medium to a more dense medium?

18. What type of waves are electromagnetic waves?

19. Which electromagnetic wave has the shortest wavelength? The longest?

20. Which waves have wavelengths longer than visible light? Shorter than visible light?

21. What is a repeating disturbance that transfers energy through matter or space called?

22. What are the two types of mechanical waves?

23. What type of wave do you create when you shake a rope up and down?

24. If the frequency of a wave changes, what else changes?

25. The bending of waves involves what two things?

26. As the wavelength of an electromagnetic wave gets longer, what happens to the frequency?

27. What is the range of electromagnetic frequencies called?

28. Explain the Doppler effect?

29. What is a medium?

30. What type of waves is produced by vibrating electric charges and consists of vibrating electric and magnetic fields?

**For all to do:**

1. If the velocity of a wave is 30 m/s and the wavelength is 5.5 m. what is its frequency?

2. If a water wave has a frequency of 3.0 Hz and a wavelength of 12 m, what is the velocity of the wave?

3. If a wave is moving with a velocity of 20.5 m/s and its frequency is 5.5 Hz, what is its wavelength?