

1. What are electromagnetic waves?
2. How are electromagnetic waves produced?
3. How do electromagnetic waves travel?
4. What is the speed of light in a vacuum? _____
5. A radio station broadcasts a radio wave with a wavelength of 3.0 meters.
What is the frequency of the wave?
6. Is electromagnetic radiation a wave or a particle? explain.
7. What happens as light travels farther from its source?
8. Draw the electromagnetic spectrum
9. List at least one use for each type of wave.
10. What is the relationship between frequency and wavelength in electromagnetic waves?

11. What are the colors of the visible light from longest wavelength to shortest?

12. Which type of radiation is the most penetrating?

13. Define and name an object made of each type of material:

transparent-

translucent-

opaque-

14. Explain how light behaves in each of the following:

reflection

refraction-

polarization-

15. How does a prism separate white light?

16. What determines the color of an object?

17. How are sound waves and light waves alike?

18. How are sound waves and light waves different?