

How do light waves travel?

Lesson Review

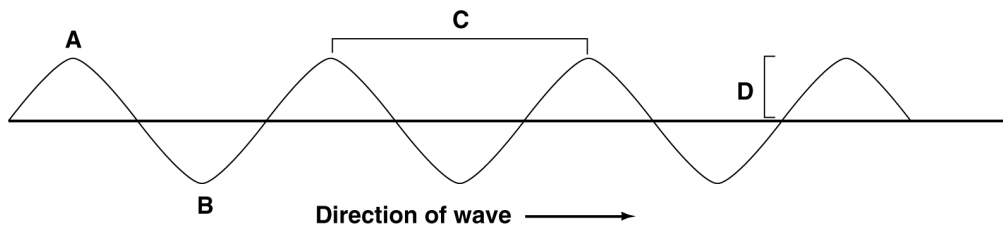
Write *true* if the statement is true. If the statement is false, change the underlined term to make the statement true.

- _____ 1. In a transverse wave, the particles of the medium move up and down at right angles to the direction of wave motion.
- _____ 2. A light wave is a longitudinal wave.
- _____ 3. Light waves need a medium in which to travel.
- _____ 4. A sound wave is a longitudinal wave.
- _____ 5. Sound waves need a medium in which to travel.
- _____ 6. Light waves travel fastest in air.
- _____ 7. The amplitude of light is the distance from the crest or trough of one wave to the crest or trough of the next wave.
- _____ 8. The frequency of light is about 300,000 km/sec.
- _____ 9. The wavelength is the height of the wave.
- _____ 10. All electromagnetic waves travel at the same speed.

Skill Challenge

Skills: *interpreting diagrams, identifying, analyzing*

The diagram below shows a wave. Refer to the diagram as you answer the questions below.



1. What property of the wave is shown by the section labeled C? _____
2. What property of the wave is shown by the portion of the wave labeled D? _____
3. In what direction is the wave traveling? _____
4. In this wave, which way are the particles moving? _____
5. Is this wave a transverse wave or a longitudinal wave? How can you tell? _____
