

Standards

This unit was developed to meet the following standards.

California Academic Content Standards for Science, Grades 9–12

Physics

4. Waves have characteristic properties that do not depend on the type of wave.

As a basis for understanding this concept:

- a. Students know waves carry energy from one place to another.
- b. Students know how to identify transverse and longitudinal waves in mechanical media, such as springs and ropes, and on the earth (seismic waves).
- c. Students know how to solve problems involving wavelength, frequency, and wave speed.
- d. Students know sound is a longitudinal wave whose speed depends on the properties of the medium in which it propagates.
- f. Students know how to identify the characteristic properties of waves: interference (beats), diffraction, refraction, Doppler effect, and polarization.

Career and Technical Education AME Industry Sector Foundation Standards

1.2 Science

Specific applications of Physics standards (grades nine through twelve):

(4.d) Students know sound is a longitudinal wave whose speed depends on the properties of the medium in which it propagates.

(4.f) Students know how to identify the characteristic properties of waves: interference (beats), diffraction, refraction, Doppler effect, and polarization.