



Alignment with national standards

Grades 5-8 Physical Science

Scaling the Spectrum

B: Physical Science; 3: Transfer of Energy; Bullet Point #1: Energy is a property of many substances and is associated with heat, light, electricity, mechanical motion, sound, nuclei, and the nature of a chemical. Energy is transferred in many ways.

B: Physical Science; 3: Transfer of Energy; Bullet Point #6: The sun is a major source of energy for changes on the earth's surface. The sun loses energy by emitting light. A tiny fraction of that light reaches the earth, transferring energy from the sun to the earth. The sun's energy arrives as light with a range of wavelengths, consisting of visible light, infrared, and ultraviolet radiation.

Grade 9-12 Physical Science

Scaling the Spectrum

B: Physical Science; 6: Interactions of Energy and Matter; Bullet Point #2: Electromagnetic waves result when a charged object is accelerated or decelerated. Electromagnetic waves include radio waves (the longest wavelength), microwaves, infrared radiation (radiant heat), visible light, ultraviolet radiation, x-rays, and gamma rays. The energy of electromagnetic waves is carried in packets whose magnitude is inversely proportional to the wavelength