

Section Summary

15.1 The Electromagnetic Spectrum

- The electromagnetic spectrum is made up of a broad range of frequencies of electromagnetic radiation.
- All frequencies of EM radiation travel at the same speed in a vacuum and consist of an electric field and a magnetic field. The types of EM radiation have different frequencies and wavelengths, and different energies and penetrating ability.

15.2 The Behavior of Electromagnetic Radiation

- EM radiation travels at different speeds in different media, produces colors on thin films, and can be polarized to oscillate in only one direction.
- Calculations can be based on the relationship among the speed, frequency, and wavelength of light, and on the relationship among luminous flux, illuminance, and distance.