



School District of Pickens County

Building success beyond the classroom

SC Standards: Science

Physical Science

Unit: Electricity and Magnetism

- Science-PS-6 Compare alternating current (AC) and direct current (DC) in terms of the production of electricity and the direction of current flow.
- Science-PS-6 Explain the relationship of magnetism to the movement of electric charges in electromagnets, simple motors, and generators.
- Science-PS-6 Explain how objects can acquire a static electric charge through friction, induction, and conduction.
- Science-PS-6 Explain the relationships among voltage, resistance, and current in Ohm's law.
- Science-PS-6 Use the formula $V = IR$ to solve problems related to electric circuits.
- Science-PS-6 Represent an electric circuit by drawing a circuit diagram that includes the symbols for a resistor, switch, and voltage source.
- Science-PS-6 Compare the functioning of simple series and parallel electrical circuits.

Unit: Waves

- Science-PS-7 Illustrate ways that the energy of waves is transferred by interaction with matter (including transverse and longitudinal/compressional waves).
- Science-PS-7 Compare the nature and properties of transverse and longitudinal/compressional mechanical waves.
- Science-PS-7 Summarize characteristics of waves (including displacement, frequency, period, amplitude, wavelength, and velocity as well as the relationships among these characteristics).
- Science-PS-7 Use the formulas $v = f$ and $v = d/t$ to solve problems related to the velocity of waves.
- Science-PS-7 Summarize the characteristics of the electromagnetic spectrum (including range of wavelengths, frequency, energy, and propagation without a medium).
- Science-PS-7 Summarize reflection and interference of both sound and light waves and the refraction and diffraction of light waves.
- Science-PS-7 Explain the Doppler effect conceptually in terms of the frequency of the waves and the pitch of the sound.