

Sixth grade: Teachers will receive four modules in this grade level: *STC Energy, Force and Motion*, *STC Electricity, Waves and Information Transfer*, *SEPUP Ecology* and *STC Space Systems Exploration*. In the *STC Energy, Force and Motion* module students will learn about the relationship between force and motion, and mass and gravity in lesson 2. In lesson 8 students will apply their understanding of energy, force and, motion to designing a rollercoaster. They will also create a model that describes the potential and kinetic energy of objects that move on the rollercoaster. This module will also cover the 7th grade standards over Newton's Laws. In *STC Electricity, Waves and Information Transfer*, students will investigate the transfer of thermal energy to electrical energy and the transfer of thermal energy from an electrical system to the surrounding environment. Students will also explore the use of models to understand different types of waves and wave properties and how waves are used to code and transmit information. In *SEPUP Ecology* students will explore the issue of invasive species, examine population data and determine the factors that are essential for supporting populations. Students also explore the flow of energy and the cycling of matter in food chains and food webs. In *STC Space Systems Exploration* students learn about the Sun-Earth-Moon system, the lunar cycle, effect of the Moon and Sun on tidal cycles, solar and lunar eclipses and seasonal cycles on Earth and role of the tilt of the Earth on its axis.