

Science Grade 7

[SEPUP Issues, Evidence and You: Energy](#)

The activities explore key energy concepts, including the variety of forms of energy, energy transfers within and between systems, the energy chains involved when energy is transformed from one form to a more desired form, and the efficiency of energy transfers.

Students also participate in activities that increase their awareness of their own energy use and its impact on their lives and the lives of others. Through their experiences in this part of the course, students become aware that energy is a quantifiable commodity that can be obtained, stored, and used in various ways. They learn that as energy is transformed, some becomes unavailable. The focus on energy efficiency and the waste involved in energy transfers leads to the consideration of renewable and non-renewable energy sources and the trade-offs involved in each. This helps students develop their understanding of the environmental costs of all energy use and provides them with an approach to making decisions about energy.

Click [here](#) for a summary of each activity in the Energy module.

[SEPUP Science & Life Issues: Micro-Life](#)

Students focus on cell size, structure, function, permeability and the different systems of classification. They learn how to use a microscope, and then use it to gather data, building on their ability to conduct experiments.

Click [here](#) for a summary of each activity in the Micro-Life module.

[SEPUP Science & Life Issues: My Body and Me](#)

This Mega-module combines the Studying People Scientifically and the Bodyworks units from Science and Life Issues. It begins with a scientific study of humans. They focus on themselves as subjects of the investigation. It helps students develop different scientific approaches to problem solving. Student investigations also address important ideas about the nature of science, the traditional scientific method, and experimental design. In one activity, students simulate the role of placebos in studies of medication for human use. At the end of the unit, students evaluate the scientific design quality of several proposed studies.

The second part of this module is the Bodyworks unit. In it, students investigate concepts and issues related to sustaining personal health. A major goal of this unit is to provide a foundation for evidence-based decision-making about health issues such as the use of medication, nutrition, exercise, and heart disease. The unit focuses on the role of organ systems in providing nutrients and oxygen to the body, and also on transporting and eliminating wastes (maintaining internal balance). Students investigate the heart and circulatory system in depth, with an emphasis on the relationship between structure and function.

Click [here](#) for a summary of each activity in the My Body and Me module.



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Inquiry in Action

[STC/MS: Earth in Space](#)

Middle school students have an innate curiosity about our nearest neighbors—the Sun and Moon— and about the nine planets, their moons, and asteroids, comets, and meteoroids within our solar system. *Earth in Space* taps this curiosity by helping students clarify what they already know about the solar system and Earth as a planet and giving them the opportunity to perform a series of engaging inquiry-centered activities through which they extend and enrich this knowledge.

Click [here](#) for more information about the Earth in Space unit.



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