



Please note that curriculum connections match general topics covered in this program. Some curriculum connections may not be covered, since programs vary due to student questions, program length, and customized elements. Please contact us with any specific questions or ideas.

Solar System - Learning Skills and Curriculum Connections:

Grade 4 Expectations:

- A1.1: use a scientific research process and associated skills to conduct investigations
- A3.2: investigate how science and technology can be used with other subject areas to address real-world problems
- A3.3: analyse contributions to science and technology from various communities

- C2.1: identify a variety of natural and artificial light sources
- C2.2: distinguish between objects and living things that emit their own light and those that reflect light from other sources
- C2.3: describe properties of light, including that light travels in a straight path and that light can be absorbed, reflected, and refracted
- C2.4: describe properties of sound, including that sound travels through a medium as a wave and that sound can be absorbed or reflected and modified

- D2.3: describe how different mechanisms transmit various types of motion, including rotary motion, from one system to another
- D2.4: describe how mechanisms transform motion, including how they can change the geometric plane in which the motion occurs and the speed and/or direction of motion

Grade 5 Expectations:

A1.1: use a scientific research process and associated skills to conduct investigations
A3.2: investigate how science and technology can be used with other subject areas to address real-world problems
A3.3: analyse contributions to science and technology from various communities

C2.1: describe matter as everything that has mass and occupies volume
C2.2: identify the states of matter, and describe characteristics and properties of solids, liquids, and gases
C2.3: describe changes of state of matter observed at home, in the community, or in the natural environment
C2.6: explain how changes of state can occur when matter absorbs or releases thermal energy

D1.1: analyse the effects of forces from natural phenomena on structures in natural and built environments

E2.2: demonstrate an understanding of the law of conservation of energy, including how energy cannot be created or destroyed but can only be transformed from one form to another
E2.3: describe how energy is stored as potential energy and transformed in a given device or system
E2.4: demonstrate an understanding that when energy is transformed from one form to another, some energy may dissipate into the environment in the form of heat, light, and/or sound energy

Grade 6 Expectations:

A1.1: use a scientific research process and associated skills to conduct investigations
A3.2: investigate how science and technology can be used with other subject areas to address real-world problems
A3.3: analyse contributions to science and technology from various communities

C2.4: describe how technologies transform various forms of energy into electrical energy
C2.5: describe ways in which electrical energy is transformed into other forms of energy

D2.1: identify flight-related applications of the properties of air
D2.2: describe the relationships between the four forces of flight – lift, weight, thrust, and drag – that make flight possible
D2.3: describe ways in which flying machines and various organisms use balanced and unbalanced forces to control their flight

E1.1: analyse the impact that conditions in space have on humans engaged in space exploration, and explain how humans meet their social, emotional, and physiological needs in space
E1.3: evaluate the social and environmental impacts of space exploration, while taking various perspectives into consideration

E2.1: identify components of the solar system, including the Sun, Earth and other planets, natural satellites, comets, asteroids, and meteoroids, and describe their main physical characteristics

E2.2: distinguish between the concepts of mass and weight

E2.3: describe the relationship between the force of gravity and the weight of a body

E2.4: identify the types of bodies in space that emit light and those that reflect light

E2.5: describe various effects of the relative positions and motions of Earth, the Moon, and the Sun

E2.6: identify various technologies used in space exploration, and describe how technological innovations have contributed to our understanding of space