

6th Grade Science Scope and Sequence
Correlated with unit “Man on the Moon”

TEKS

TEKS taught all year long:

SCI.6.01. Scientific processes. The student conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:

SCI.6.01.A. demonstrate safe practices during field and laboratory investigations **{T8}**;

SCI.6.01.B. make wise choices in the use and conservation of resources and the disposal or recycling of materials.

SCI.6.02. Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations.

The student is expected to:

SCI.6.02.A. plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology **{T8}**;

SCI.6.02.B. collect data by observing and measuring **{T8}**;

SCI.6.02.C. analyze and interpret information to construct reasonable explanations from direct and indirect evidence **{T8}**;

SCI.6.02.D. communicate valid conclusions **{T8}**; and

SCI.6.02.E. construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data **{T8}**.

SCI.6.03. Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions.

The student is expected to:

SCI.6.03.A. analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information **{T8}**;

SCI.6.03.B. draw inferences based on data related to promotional materials for products and services {T8};

SCI.6.04. Scientific processes. The student knows how to use a variety of tools and methods to conduct science inquiry.

The student is expected to:

SCI.6.04.A. collect, analyze, and record information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, timing devices, hot plates, test tubes, safety goggles, spring scales, magnets, balances, microscopes, telescopes, thermometers, calculators, field equipment, compasses, computers, and computer probes {T8}

TEKS taught 1st 6 weeks:

SCI.6.06. Science concepts. The student knows that there is a relationship between force and motion. The student is expected to:

SCI.6.06.A. identify and describe the changes in position, direction of motion, and speed of an object when acted upon by force

TEKS taught 2nd 6 weeks:

SCI.6.08. Science concepts. The student knows that complex interactions occur between matter and energy.

The student is expected to:

SCI.6.08.A. define matter and energy;

SCI.6.08.B. explain and illustrate the interactions between matter and energy in the water cycle and in the decay of biomass such as in a compost bin

{T5} {T8} {T10} {T11}; and

SCI.6.08.C. describe energy flow in living systems including food chains and food webs {T5} {T10} {T11}.

SCI.6.09. Science concepts. The student knows that obtaining, transforming, and distributing energy affects the environment

{T8} {T10} {T11}. The student is expected to:

SCI.6.09.A. identify energy transformations occurring during the production of energy for human use such as electrical energy to heat energy or heat energy to electrical energy {T8} {T10} {T11};

SCI.6.09.B. compare methods used for transforming energy in devices such as water heaters, cooling systems, or hydroelectric and wind power plants; and

[SCI.6.09.C.](#) research and describe energy types from their source to their use and determine if the type is renewable, non-renewable, or inexhaustible.

TEKS taught 3rd 6 week:

SCI.6.05. Science concepts. The student knows that systems may combine with other systems to form a larger system. The student is expected to:

[SCI.6.05.A.](#) identify and describe a system that results from the combination of two or more systems such as in the solar system {T5} {T10} {T11}

SCI.6.10. Science concepts. The student knows the relationship between structure and function in living systems. The student is expected to:

[SCI.6.10.A.](#) differentiate between structure and function {T10} {T11};

TEKS taught 4th 6 weeks:

SCI.6.12. Science concepts. The student knows that the responses of organisms are caused by internal or external stimuli. The student is expected to:

[SCI.6.12.A.](#) identify responses in organisms to internal stimuli such as hunger or thirst;

[SCI.6.12.B.](#) identify responses in organisms to external stimuli such as the presence or absence of heat or light; and

[SCI.6.12.C.](#) identify components of an ecosystem to which organisms may respond

TEKS taught 5th 6 weeks:

SCI.6.13. Science concepts. The student knows components of our solar system. The student is expected to:

[SCI.6.13.A.](#) identify characteristics of objects in our solar system including the Sun, planets, meteorites, comets, asteroids, and moons {T8}; and

[SCI.6.13.B.](#) describe types of equipment and transportation needed for space travel {T5} {T8}.

SCI.6.14. Science concepts. The student knows the structures and functions of Earth systems. The student is expected to:

SCI.6.14.A. summarize the rock cycle **{T5} {T10} {T11}**; **and**

SCI.6.14.B. identify relationships between groundwater and surface water in a watershed **{T8}**.

SCI.6.14.C. describe components of the atmosphere, including oxygen, nitrogen, and water vapor, and identify the role of atmospheric movement in weather change **{T10} {T11}**.