

Sixth Grade Science

1st 9 weeks

0607 Inq.1	Design a simple experimental procedure with an identified control and appropriate variables.
0607 Inq. 2	Select tools and procedures needed to conduct a moderately complex experiment.
0607 Inq. 3	Interpret and translate data in a table, graph, or diagram.
0607 Inq. 4	Draw a conclusion that establishes a cause and effect relationship supported by evidence.
0607 Inq. 5	Identify a faulty interpretation of data that is due to bias or experimental error.
0607. T/E. 1	Identify the tools and procedures needed to test the design features of a prototype.
0607. T/E. 2	Evaluate a protocol to determine if the engineering design process was successfully applied.
0607. T/E. 3	Distinguish between the intended benefits and the unintended consequences of a new technology.
0607. T/E. 4	Differentiate between adaptive and assistive engineered products (e.g., food, biofuels, medicines, integrated pest management).
How do living things interact with one another and with the non-living elements of their environment?	
0607.2.1	Classify organisms as producers, consumers, scavengers, or decomposers according to their role in a food chain or food web.
0607.2.2	Interpret how materials and energy are transferred through an ecosystem.
0607.2.3	Identify the biotic and abiotic elements of the major biomes.
0607.2.4	Identify the environmental conditions and interdependencies among organisms found in the major biomes.

2nd 9 weeks

0607 Inq.1	Design a simple experimental procedure with an identified control and appropriate variables.
0607 Inq. 2	Select tools and procedures needed to conduct a moderately complex experiment.
0607 Inq. 3	Interpret and translate data in a table, graph, or diagram.
0607 Inq. 4	Draw a conclusion that establishes a cause and effect relationship supported by evidence.
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0607. T/E. 1	Identify the tools and procedures needed to test the design features of a prototype.
0607. T/E. 2	Evaluate a protocol to determine if the engineering design process was successfully applied.
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How do the physical characteristics and the chemical makeup of the atmosphere influence surface processes and life on Earth?	
0607.8.1	Analyze data to identify events associated with heat convection in the atmosphere.
0607.8.2	Recognize the connection between the sun's energy and the wind.
0607.8.3	Describe how temperature differences in the ocean account for currents.
0607.8.4	Interpret meteorological data to make predictions about the weather.

3rd 9 weeks

What big ideas guide human understanding about the origin and structure of the universe, Earth's place in the cosmos, and observable motions and patterns in the sky?	
0607.6.1	Use data to draw conclusions about the major components of the universe.
0607.6.2	Explain how the relative distance of objects from the earth affects how they appear.
0607.6.3	Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.
0607.6.4.	Explain the different phases of the moon using a model of the earth, moon, and sun.
0607.6.5	Predict the types of tides that occur when the earth and moon occupy various positions.
0607.6.6	Use a diagram that shows the positions of the earth and sun to explain the four seasons.
0607.6.7	Explain the difference between a solar and a lunar eclipse.
What basic energy related ideas are essential for understanding the dependency of the natural and man-made worlds on energy?	
0607.10.1	Distinguish among gravitational potential energy, elastic potential energy, and chemical potential energy.
0607.10.2	Interpret the relationship between potential and kinetic energy.
0607.10.3	Recognize that energy can be transformed from one type to another.
0607.10.4	Explain the Law of Conservation of Energy using data from a variety of energy transformations.
0607.12.1	Identify how simple circuits are associated with the transfer of electrical energy when heat, light, sound, and chemical changes are produced.
0607.12.2	Identify materials that can conduct electricity.

4th 9 weeks: Review