

4th Grade: Science

Student Name:

General Standard	Standard Notation	Standard Description	August 2010	September 2010	October 2010	November 2010	December 2010	January 2011	February 2011	March 2011	April 2011	May 2011
PHYSICAL SCIENCE: 1.0 Electricity and magnetism are related effects that have many useful applications in everyday life	4.1.a	Design and build simple series and parallel circuits by using components such as wires, batteries, and bulbs.										
	4.1.b	Build a simple compass and use it to detect magnetic effects, including Earth's magnetic field.										
	4.1.c	Electric currents produce magnetic fields and know how to build a simple electromagnet.										
	4.1.d	The role of electromagnets in the construction of electric motors, electric generators, and simple devices, such as doorbells and carphones.										
	4.1.e	Electrically charged objects attract or repel each other										
	4.1.f	Magnets have two poles (north and south) and that like poles repel each other while unlike poles attract each other.										
	4.1.g	Electrical energy can be converted to heat, light, and motion.										
LIFE SCIENCE: 2.0 All organisms need energy and matter to live and grow. As a basis for understanding	4.2.a	Plants are the primary source of matter and energy entering most food chains.										
	4.2.b	Producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.										
	4.2.c	Decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals										
LIFE SCIENCE: 3.0 Living organisms depend on one another and on their environment for survival	4.3.a	Ecosystems can be characterized by their living and nonliving components.										
	4.3.b	In any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.										
	4.3.c	Many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.										
	4.3.d	Most microorganisms do not cause disease and that many are beneficial.										
EARTH SCIENCE: 4.0 The properties of rocks and minerals reflect the processes that formed them	4.4.a	Differentiate among igneous, sedimentary, and metamorphic rocks by referring to their properties and methods of										
	4.4.b	Identify common rock-forming minerals (including quartz, calcite, feldspar, mica, and hornblende) and ore minerals by using a table of diagnostic properties.										
EARTH SCIENCE: 5.0 Waves, wind, water, and ice shape and reshape Earth's land surface	4.5.a	Some changes in the earth are due to slow processes, such as erosion, And some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.										
	4.5.b	Natural processes, including freezing and thawing and the growth of roots, cause rocks to break down into smaller pieces.										
	4.5.c	Moving water erodes landforms, reshaping the land by taking it away from some places and depositing it as pebbles, sand, silt, and mud in other places (weathering, transport, and deposition)										
INVESTIGATION AND EXPERIMENTATION: 6.0 Scientific progress is made by asking meaningful questions and conducting careful	4.6.a	Differentiate observation from inference (interpretation) and know scientists' explanations come partly from what they observe and partly from how they interpret their observations.										

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investigations. (relates to other standards above)	4.6.b	Measure and estimate the weight, length, or volume of objects.										
	4.6.c	Formulate and justify predictions based on cause-and-effect relationships										
	4.6.d	Conduct multiple trials to test a prediction and draw conclusions about the relationships between predictions and results										
	4.6.e	Construct and interpret graphs from measurements										
	4.6.f	Follow a set of written instructions for a scientific investigation										