

Meeting the California Science Standards with the Life Lab Science Program Curriculum

CALIFORNIA SCIENCE STANDARDS -- GRADE FOUR
Grd. No. Sct. California Science Standard Description

LIFE LAB SCIENCE PROGRAM
Grd. Units/Modules

4	1	Electricity and magnetism are related effects that have many useful applications in everyday life.		
4	1	a. How to design and build simple series and parallel circuits using components such as wires, batteries, and bulbs.	N/A	
4	1	b. How to build a simple compass and use it to detect magnetic effects, including Earth's magnetic field.	N/A	
4	1	c. Electric currents produce magnetic fields and how to build a simple electromagnet.	N/A	
4	1	d. The role of electromagnets in the construction of motors, generators, and devices such as doorbells and earphones.	N/A	
4	1	e. Electrically charged objects attract or repel each other.	N/A	
4	1	f. Magnets have two poles, labeled north and south, and like poles repel each other while unlike poles attract each other.	N/A	
4	1	g. Electrical energy can be converted to heat, light, and motion.	N/A	
4	2	All organisms need energy and matter to live and grow.		
4	2	a. Plants are the primary source of matter and energy entering most food chains.	2 4 4	Change Around Us/Invest. Food Chains Food Webs Ecosystems
4	2	b. Producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs, and may compete for resources in an ecosystem.	2 2 4 4 4 5	Change Around Us/Invest. Food Chains Change Around Us/Invest. Food Chains Food Webs Ecosystems Sustainable Systems Growing Together
4	2	c. Decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.	2 2 4 4 5	Change Around Us/Invest. Food Chains Change Around Us/Conserving Resources Nutrient Interactions Food Webs Soil Changes
4	3	Living organisms depend on one another and on their environment for survival.		
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4	3	a. Ecosystems can be characterized in terms of their living and nonliving components.	4 4	Ecosystems Sustainable Systems
4	3	b. For any environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.	3 4 4	How Things Work/Soil Food Webs Ecosystems
4	3	c. Many plants depend on animals for pollination and seed dispersal, while animals depend on plants for food and shelter.	3 4 4 5	How Things Work/Seeds Food Webs Ecosystems Growing Together
4	3	d. Most microorganisms do not cause disease and many are beneficial.	5	Growing Together

4	4	The properties of rocks and minerals reflect the processes that formed them.		
4	4	a. How to differentiate among igneous, sedimentary, and metamorphic rocks by their properties and formation.	N/A	
4	4	b. How to identify common rock-forming minerals and ore minerals using a table of diagnostic properties.	N/A	

4	5	Waves, wind, water, and ice shape and reshape the Earth's land surface.		
4	5	Waves, wind, water, and ice shape and reshape the Earth's land surface.	2 3	Change Around Us/Investigating Air How Things Work/Soil
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.	5	Soil Changes
4	5	b. Natural processes, including freezing/thawing and growth of roots, cause rocks to break down into smaller pieces.	3	How Things Work/Soil
4	5	b. Natural processes, including freezing/thawing and growth of roots, cause rocks to break down into smaller pieces.	5	Soil Changes
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).	5	Soil Changes

4	6	Scientific progress is made by asking meaningful questions and conducting careful investigations.		
4	6	a. Differentiate observation from inference (interpretation), and know that scientists' explanations come partly from what they observe and partly from how they interpret their observations.	4 5	Water Interactions Seasonal Change
4	6	b. Measure and estimate weight, length, or volume of objects.	5	Seasonal Change
4	6	c. Formulate predictions and justify predictions based on cause and effect relationships.	5 5	Seasonal Change Weather and Climate Change
4	6	d. Conduct multiple trials to test a prediction and draw conclusions about the relationships between results and predictions.	5	Weather and Climate Change
4	6	e. Construct and interpret graphs from measurements.	5	Weather and Climate Change
4	6	f. Follow a set of written instructions for a scientific investigation.	4 4 5 5 5 5	Food Webs Ecosystems Energy and Change Weather and Climate Change Soil Changes Growing Together