

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

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

LIFE LAB SCIENCE PROGRAM
Grd. Units/Modules

5	1	Elements and their combinations account for all the varied types of matter in the world.			
5	1	a.	During chemical reactions, the atoms in the reactants rearrange to form products with different properties.	N/A	
5	1	b.	All matter is made of atoms, which may combine to form molecules.	N/A	
5	1	c.	Metals have properties in common, such as conductivity. Some metals are pure elements while others are a combination.	N/A	
5	1	d.	Each element is made of one kind of atom. These elements are organized in the Periodic Table by their chemical properties.	N/A	
5	1	e.	Scientists have instruments that can create images of atoms and molecules.	N/A	
5	1	f.	Differences in chemical and physical properties of substances are used to separate mixtures and identify compounds.	N/A	
5	1	g.	Properties of solid, liquid, and gaseous substances, such as sugar, water, helium, oxygen, nitrogen and carbon dioxide.	N/A	
5	1	h.	Living organisms and most materials are composed of just a few elements.	N/A	
5	1	i.	Common properties of salts, such as sodium chloride (NaCl).	N/A	

5	2	Plants and animals have structures for respiration, digestion, waste disposal, and transport of materials.			
5	2	a.	Many multicellular organisms have specialized structures to support the transport of materials.	N/A	
5	2	b.	How blood circulates through the heart chambers, lungs, and body, and how carbon dioxide and oxygen are exchanged.	N/A	
5	2	c.	The sequential steps of digestion, and the roles of human body parts in the function of the digestive system.	N/A	
5	2	d.	The role of the kidney in removing cellular wastes from blood and converting them into urine, which is stored in the bladder.	N/A	
5	2	e.	How sugar, water, and minerals are transported in a plant.	4 4	Water Interactions Food Webs
5	2	f.	Plants use carbon dioxide (CO ₂) and energy from sunlight to build molecules of sugar and release oxygen.	4 4	Light Interactions Food Webs
5	2	g.	Plant and animal cells break down sugar to obtain energy, forming carbon dioxide (CO ₂) and water (respiration).	N/A	

5	3	Water on Earth moves between the oceans and land through the processes of evaporation and condensation.			
5	3		Water on Earth moves between the oceans and land through the processes of evaporation and condensation.	2	Change Around Us/Investigating Water
5	3	a.	Most of the Earth's water is present as salt water in the oceans, which cover most of the Earth's surface.	N/A	
5	3	b.	When liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled, or as a solid if cooled below the freezing point of water.	2 4 4	Change Around Us/Investigating Water Water Interactions Sustainable Systems
5	3	c.	Water moves in the air from one place to another in the form of clouds or fog and falls to the Earth as rain, hail, sleet, or snow.	4	Water Interactions
5	3	d.	The amount of fresh water, located in river, lakes, underground sources, and glaciers, is limited, and its availability can be extended through recycling and decreased use.	2 4	Change Around Us/Conserving Resources Water Interactions
5	3	e.	The origin of water used by their local communities.	4	Water Interactions

5	4	Energy from the sun heats the Earth unevenly, causing air movements resulting in changing weather patterns.		
5	4	a. Uneven heating of the Earth causes air movements (convection currents).	5	Weather and Climate Change
5	4	b. The influence of the ocean on weather, and the role of the water cycle in weather.	5	Weather and Climate Change
5	4	c. Causes and effects of different types of severe weather.	N/A	
5	4	d. How to use weather maps and weather forecasts to predict local weather, and that prediction depends on many changing variables.	5	Weather and Climate Change
5	4	e. The Earth's atmosphere exerts a pressure that decreases with distance above the surface, and is the same in all directions.	N/A	

5	5	The solar system consists of planets and other bodies that orbit the sun in predictable paths.		
5	5	a. The sun is the central and largest body in the solar system and is composed primarily of hydrogen and helium.	N/A	
5	5	b. The solar system includes the Earth, moon, sun, planets and their satellites, and smaller objects such as asteroids.	5	Seasonal Change
5	5	c. The path of a planet around the sun is due to the gravitational attraction between the sun and the planet.	N/A	

5	6	Scientific progress is made by asking meaningful questions and conducting careful investigations.		
5	6	a. Classify objects based on appropriate criteria.	N/A	
5	6	b. Develop a testable question.	5	Energy and Change
5	6	c. Plan and conduct a simple investigation based on a student-developed question, and write instructions others can follow to carry out the procedure.	3 5 4 4 4	How Things Work/Soil Energy and Change Habitats Water interactions Sustainable Systems
5	6	d. Identify the dependent and controlled variables in an investigation.	5 3	Energy and Change How Things Work/Plants
5	6	e. Identify an independent variable in a scientific investigation and explain what will be learned by collecting data on this variable.	3 4 4 4	How Things Work/Soil Habitats Nutrient Interactions Food Webs
5	6	f. Select appropriate tools and make quantitative observations.	N/A	
5	6	g. Record data using appropriate graphic representation (chart, graphs, diagrams), and make inferences based on those data.	4	Habitats
5	6	h. Draw conclusions based on scientific evidence and indicate whether further information is needed to support a conclusion.	N/A	
5	6	i. Write a report of an investigation that includes tests conducted, data collected or evidence examined, and conclusions drawn.	3	How Things Work/Plants