

8th Grade Integrated Science
Standard 2

Ecology

Essential Understanding

Students will understand that energy from sunlight is changed to chemical energy in plants, transfers between living organisms, and that changing the environment may alter the amount of energy provided to living organisms.

	Objective #	Essential Learning Objectives
1	1a	I can describe photosynthesis and recognize its importance.
2	1b	I can describe cellular respiration and recognize its importance.
3	1c	I can trace the path of energy from the sun to mechanical energy in organisms as a result of photosynthesis and cellular respiration.
4	2a	I can explain and give examples of feeding relationships and symbiotic relationships between organisms.
5	2b	I can model and diagram the flow of energy in food chains, food webs, and energy pyramids.
6	2c	I can design and use an experiment that tests the affects of air, temperature, water, or light on plants.
7	2d	I can describe what different scientists do when they study the same ecosystem.
8	3a	I can describe how humans affect an ecosystem.
9	3b/3c	I can use evidence to infer the potential effects of humans on a specific food web.
10	3d	I can describe what extinction is, and argue for or against allowing a species to go extinct.

Science Language students should know and use	food web, food chain, photosynthesis, respiration, predator, energy flow, solar energy, chemical energy, mechanical energy, producer, consumer, prey, mutualism, parasitism, competition, environment, capacity, organism, decomposer
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