



BROWNELL TALBOT

Fifth Grade Prioritized Science Standards

The prioritized standards listed align with the NGSS (Next Generation Science Standards) Performance Expectations. The NGSS also includes a set of Science and Engineering Practices for grades kindergarten through 12. A practice of science is to ask and refine questions that lead to descriptions and explanations of how the natural and designed world(s) work and which can be empirically tested. Engineering questions clarify problems to determine criteria for successful solutions and identify constraints to solve problems about the designed world. Both scientists and engineers also ask questions to clarify ideas. (see the link at the bottom for detailed descriptions of those condensed practices, grades K-12)

LIFE SCIENCE		
Molecules to Organisms	Organization for Matter & Energy Flow	Support an argument that plants get the materials they need for growth chiefly from air and water. (5-LS1-1) Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. (<i>secondary</i> 5-PS3-1)
Ecosystems	Interdependent Relationships	Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (5-LS2-1)
	Cycles of Matter & Energy Transfer	Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (5-LS2-1)
EARTH SCIENCE		
Earth's Place in the Universe	Universe & Its Stars	Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. (5-ESS1-1)
	Earth & the Solar System	Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. (5-ESS1-2)
Earth's Systems	Roles of Water	Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. (5-ESS2-2)
PHYSICAL SCIENCE		
Matter & Its Interactions	Structure & Properties	Develop a model to describe that matter is made of particles too small to be seen. (5-PS1-1) Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. (5-PS1-2) Make observations and measurements to identify materials based on their properties. (5-PS1-3)
	Chemical Reactions	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. (5-PS1-2)
Energy	Chemical Processes & Everyday Life	Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. (5-PS3-1)
ENGINEERING		
Engineering Design	Developing Possible Solutions	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (3-5-ETS1-2) Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (3-5-ETS1-3)