



BROWNELL TALBOT

First 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	Structure & Function	Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. (1-LS1-1)
	Growth & Development	Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. (1-LS1-2)
Heredity	Inheritance of Traits	Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. (1-LS3-1)

EARTH SCIENCE

Earth's Place in the Universe	Universe & Its Stars	Use observations of the sun, moon, and stars to describe patterns that can be predicted. (1-ESS1-1)
	Earth & the Solar System	Make observations at different times of year to relate the amount of daylight to the time of year. (1-ESS1-2)

PHYSICAL SCIENCE

Waves & Their Application	Wave Properties	Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. (1-PS4-1)
	Electromagnetic Radiation	Make observations to construct an evidence-based account that objects can be seen only when illuminated. (1-PS4-2)
		Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. (1-PS4-3)
Information Technologies	Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance. (1-PS4-4)	

ENGINEERING

Engineering Design	Defining & Delimiting a Problem	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. (K-2-ETS1-1)
	Developing Possible Solutions	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. (K-2-ETS1-2)
	Developing Possible Solutions	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (K-2-ETS1-3)