

NATIONAL SCIENCE EDUCATION STANDARDS

Teaching Physical Science through Children's Literature

GRADE	CATEGORY	SUB-CATEGORY	STANDARD
K-4	Physical Science	Light, Heat, Electricity, and Magnetism	Electricity in circuits can produce light, heat, sound, and magnetic effects. Electrical circuits require a complete loop through which an electrical current can pass.
K-4	Physical Science	Light, Heat, Electricity, and Magnetism	Heat can be produced in many ways, such as burning, rubbing, or mixing one substance with another. Heat can move from one object to another by conduction.
K-4	Physical Science	Light, Heat, Electricity, and Magnetism	Light travels in a straight line until it strikes an object. Light can be reflected by a mirror, refracted by a lens, or absorbed by the object.
K-4	Physical Science	Light, Heat, Electricity, and Magnetism	Magnets attract and repel each other and certain kinds of other materials.
K-4	Physical Science	Position and Motion of Objects	An object's motion can be described by tracing and measuring its position over time.
K-4	Physical Science	Position and Motion of Objects	Position of an object can be described by locating it relative to another object or the background.
K-4	Physical Science	Position and Motion of Objects	Sound is produced by vibrating objects. The pitch of the sound can be varied by changing the rate of vibration.
K-4	Physical Science	Position and Motion of Objects	The position and motion of objects can be changed by pushing or pulling. The size of the change is related to the strength of the push or pull.
K-4	Physical Science	Properties of Objects and Materials	Materials can exist in different states- solid, liquid, and gas. Some common materials such as water, can be changed from one state to another by heating or cooling.
K-4	Physical Science	Properties of Objects and Materials	Objects are made of one or more materials, such as paper, wood, and metal. Objects can be described by the properties of the materials from which they are made, and those properties can be used to separate or sort a group of objects or materials.

K-4	Physical Science	Properties of Objects and Materials	Objects have many observable properties, including size, weight, shape, color, temperature, and the ability to react with other substances. Those properties can be measured using tools, such as rulers, balances, and thermometers.
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