

SAU 15
Auburn, Candia, Hooksett
Grade 4
POWER STANDARDS
Science

EARTH

Weather

- ❖ **Students will know that we can get information by watching the weather. They will also explain how the use of scientific tools helps us predict weather.**
 - **S:ESS1:4:1.3** Based on data collected from daily weather observations, describe weather changes or weather patterns.
 - **S:ESS1:4:1.4** Explain how the use of scientific tools helps to extend senses and gather data about weather (i.e., weather/wind vane - direction; wind sock - wind intensity; anemometer - speed; thermometer - temperature; meter sticks/rulers - snow depth; rain gauges - rain amount in inches).

Land and Water

- ❖ **Students will explain how wind, water, and ice can change the Earth's surface.**
 - **S:ESS1:4:5.2** Explain how wind, water, or ice shape and reshape the Earth's surface.
 - **S:ESS1:4:6.4** Use results from an experiment to draw conclusions about how water interacts with earth materials (e.g., percolation, erosion, frost heaves).

LIFE

Food Energy

- ❖ **Students will know that all living things need energy in order to stay alive.**
 - **S:LS2:4:2.2** Recognize that energy is needed for all organisms to stay alive and grow. Identify where a plant or animal gets its energy.

Interactions between Living Things/Environmental Changes

- ❖ **Students can describe different ways that plants and animals need each other in order to survive. They will also use information to explain how plants and animals react to changes in their environment.**
 - **S:LS2:4:3.2** Describe ways plants and animals depend on each other (e.g., shelter, nesting, food).
 - **S:LS3:4:1.3** Using information (data or scenario), explain how changes in the environment can cause organisms to respond (e.g., survive there and reproduce, move away, die).

Inherited vs. Learned Characteristics

- ❖ **Students will know that humans get their features from their parents and also know that some human traits are learned.**
 - **S:LS4:4:3.2** Distinguish between characteristics of humans that are inherited from parents (i.e., hair color, height, skin color, eye color) and others that are learned (e.g., riding a bike, singing a song, playing a game, reading).

PHYSICAL

Measures of Weight

- ❖ **Students can demonstrate with weights, that by weighing pieces of something they can find the weight of the whole thing.**
 - **S:PS1:4:1.2** Use measures of weight (data) to demonstrate that the whole equals the sum of its parts.

Energy

- ❖ **Students can explain an example of energy and can make an experiment, observe, or predict how heat might move from one object to another.**
 - **S:PS2:4:3.6** Given a specific example or illustration (e.g., simple closed circuit, rubbing hands together) predict the observable effects of energy (i.e., light bulb lights, a bell rings, hands warm up) (e.g., a test item might ask, "What will happen when...?").
 - **S:PS2:4:3.8** Experiment, observe, or predict how heat might move from one object to another.

PHYSICAL (CONT.)

Magnetism/Force

- ❖ **Students can describe magnetism. They will also use information to show that a change in force will change the position, direction, or speed of an object.**
 - **S:PS3:4:1.5** Use observations of magnets in relation to other objects to describe the properties of magnetism (i.e., attract or repel certain objects, or has no effect).
 - **S:PS4:4:2.1** Use data to predict how a change in force (greater/less) might affect the position, direction of motion, or speed of an object (e.g., ramps and balls).