

Next Generation Science Standards

Kindergarten

EARTH SCIENCE <u>Weather and Climate</u> K-ESS2 Earth's Systems K-ESS3 Earth and Human Activity K-PS3 Energy	LIFE SCIENCE <u>Animals, Plants and Their Environment</u> K-LS1 From Molecules to Organisms: Structures & Processes	PHYSICAL SCIENCE <u>Forces: Pushes and Pulls</u> K-PS2 Motion and Stability: Forces and Interactions
<p>K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time. [i.e. number of sunny, windy, cloudy, rainy days in a month; comparison of different months, compare AM and PM coolness]</p> <p>K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. [Focus on local forms of severe weather, like heavy rain or hot spells]</p> <p>K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface. [i.e. measure relative changes -warmer/cooler - in sand, soil, rock, and water]</p> <p>K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. [i.e. umbrellas, canopies, tents]</p>	<p>K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive. [i.e. animals need food, plants need sunlight; certain kinds of animals need similar kinds of food; all living things need water]</p> <p>K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. [i.e. animal digging, tree roots breaking surfaces]</p> <p>K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. [i.e. sunny places contain plants that need warmth, forests contain animals that eat forest plants]</p> <p>K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. [i.e. recycling to reduce logging, reuse of bottles to reduce oil drilling]</p>	<p>K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. [i.e. comparing results of different strengths of pulling with a string, or different strengths of pushing, stopping a rolling ball or two objects colliding. Does not include force acting at a distance like magnetism]</p> <p>K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. [i.e. using ramps, chutes, obstacles to divert rolling objects. Does not include friction.]</p>
NGSS Engineering - K-2-ETS1 Engineering Design		
<p>K-2-ETS1-1. 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</p> <p>K-2-ETS1-2. 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.</p> <p>K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>		