Next Generation Science Standards

2nd Grade

EARTH SCIENCE	LIFE SCIENCE	PHYSICAL SCIENCE
Processes that Shape the Earth **2-ESS1** Earth's Place in the Universe **2-ESS2** Earth's Systems	**Ecosystems: Interactions, Energy, and Dynamics** **2-LS2** *Ecosystems: Interactions, Energy, and Dynamics*	**Structure and Properties of Matter** **2-PS1** *Matter and its Interactions*
2-ESS1-1. Use information from several sources to provide evidence that **Earth events can occur quickly or slowly.** *[i.e. Compare relative timescales of volcanic explosions and earthquakes with weathering and erosion.]* **2-ESS2-1.** Compare multiple **solutions designed to slow or prevent wind or water from changing the shape of the land.** *[i.e. Compare dikes and berms, types of windbreaks, erosion resistant planting]* **2-ESS2-2.** Develop a model to represent the **shapes and kinds of land and bodies of water in an area.** *[Note: watershed models with clay or paper]* **2-ESS2-3.** Obtain information to identify **where water is found on Earth and that it can be solid or liquid**. *[Note: use maps, Google Earth]*	**2-LS2-1.** Plan and conduct an investigation to determine if **plants need sunlight and water to grow.** *[Only test one variable at a time]* **2-LS2-2.** Develop a simple model that mimics the **function of an animal in dispersing seeds or pollinating plants.** *[Note: seeds catching on fur and study of bee, moth, butterfly, bird, or other animal pollinators]* **Biological Evolution: Unity and Diversity** **2-LS4** *Biological Evolution: Unity and Diversity* **2-LS4-1.** Make **observations of plants and animals to compare the diversity of life in different habitats**. *[i.e. study the range of different living things that exist in each habitat]*	**2-PS1-1**. Plan and conduct an investigation to **describe and classify different kinds of materials by their observable properties.** *[i.e. Sort materials by color, texture, hardness, flexibility, absorbency, size.]* **2-PS1-2.** Analyze data obtained from testing different materials to **determine which materials have the properties that are best suited for an intended purpose**. *[Note: Use data above to choose material]* **2-PS1-3.** Make observations to construct an evidence-based account of how **an object made of a small set of pieces can be disassembled and made into a new object.** *[i.e. Using blocks, legos, models]* **2-PS1-4.** Construct an argument with evidence that **some changes caused by heating or cooling can be reversed and some cannot**. *[i.e. Water and butter changes can be reversed, but cooking an egg or burning a piece of paper cannot]*

NGSS Engineering - K-2-ETS1 *Engineering Design*

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.
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.
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.