













**Alignment Document  
Next Generation Science Skills (NGSS)  
For Kindergarten  
(K & K-2)**

## Our program aligns perfectly with the NGSS Science and Engineering Practices





-  1. Asking Questions and Defining Problems
-  2. Developing and Using Models
-  3. Planning and Carrying out Investigations
-  4. Analyzing and Interpreting Data
-  5. Using Mathematical and Computational Thinking
-  6. Constructing Explanations and Designing Solutions
-  7. Engaging in Argument from Evidence
-  8. Obtaining, Evaluating and Communicating Information

**We have recommended lessons which support the following Disciplinary Core Ideas** See the list of lessons attached




### Physical Sciences

-  • Matter and Its Interactions
-  • Motion and Stability: Forces and Interactions
-  • Energy
-  • Waves and Their Applications


### Life Sciences

-  • From Molecules to Organisms: Structures and Processes
-  • Ecosystems: Interactions, Energy and Dynamics
-  • Heredity: Inheritance and Variation of Traits
-  • Biological Evolution: Unity and Diversity








### Earth and Space Sciences

-  • Earth's Place in the Universe
-  • Earth's Systems
-  • Earth and Human Activity

### Engineering, Technology and Applications of Science

-  • Engineering Design
-  • Links among Engineering, Technology, Science and Society

**We have recommended lessons which support the following Cross Cutting Concepts** See the list attached

-  1. Patterns
-  2. Cause and Effect
-  3. Scale, Proportion and Quantity
-  4. Systems and System Models
-  5. Energy and Matter
-  6. Structure and Function
-  7. Stability and Change

# Kindergarten Lesson recommendations

## K-PS2 Motion and Stability: Forces and Interactions

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.	<a href="#">A Frantic Fall</a> <a href="#">Power of the Air</a> <a href="#">Friction on the Slopes</a>
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.	<a href="#">Optical Illusions</a> <a href="#">Mystical Magnets</a> <a href="#">Hoseli's Journey</a> <a href="#">Lift it Up</a> <a href="#">A Frantic Fall</a>

## K-LS1 From Molecules to Organisms: Structures and Processes

K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.	<a href="#">Flowery Business</a> <a href="#">From Seed to Plant</a> <a href="#">Busy Bees</a> <a href="#">Beehive</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">What Makes a Living Thing?</a> <a href="#">Hiding in Plain Sight</a> <a href="#">Fruity Surprise</a> <a href="#">Habitat Hunting</a> <a href="#">Caring for a Pet Dog</a>
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## K-ESS2 Earth's Systems

K-ESS2-1	Use and share observations of local weather conditions to describe patterns over time.	<a href="#">Pressure In The Puddle</a> <a href="#">Whirling With The Vortex</a> <a href="#">Summer Sandcastles</a> <a href="#">Cloudy Skies</a> <a href="#">Force of the Wind</a>
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	<a href="#">Beehive</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a> <a href="#">Hiding in Plain Sight</a>

# Kindergarten Lesson recommendations

## K-ESS3 Earth and Human Activity

K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	<a href="#">Flowery Business</a> <a href="#">Egg-traordinary Nest Building</a> <a href="#">Habitat Hunting</a> <a href="#">From Seed to Plant</a> <a href="#">What Makes a Living Thing?</a> <a href="#">Beehive</a> <a href="#">Busy Bees</a>
K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	<a href="#">A Freezing Surprise</a> <a href="#">Force of the Wind</a> <a href="#">The Great Inventors of the Secret</a> <a href="#">Forest</a> <a href="#">Whirling With The Vortex</a>

## 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.	<a href="#">A Freezing Surprise</a> <a href="#">Lift It Up!</a> <a href="#">Carousel</a> <a href="#">Safe Landing</a> <a href="#">The Great Inventors of the Secret</a> <a href="#">Forest</a> <a href="#">Pi Hiding</a>
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.	<a href="#">Planning An Escape</a> <a href="#">The Great Inventors of the Secret</a> <a href="#">Forest</a> <a href="#">Floating Problems</a> <a href="#">Balancing Problems</a> <a href="#">Frantic Fall</a> <a href="#">Kindergarten of Shape Creatures</a>
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.	<a href="#">Floating Problems</a> <a href="#">Glue</a> <a href="#">Lift It Up!</a> <a href="#">Cave Conundrum</a> <a href="#">Safe Landing</a> <a href="#">Frantic Fall</a>

# Kindergarten Lesson recommendations

## K.Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.	<a href="#">Flowery Business</a> <a href="#">What Makes a Living Thing?</a> <a href="#">Puppy Playtime</a> <a href="#">From Seed to Plant</a> <a href="#">Busy Bees</a> <a href="#">Caring for a Pet Dog</a> <a href="#">Beehive</a>
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	<a href="#">What Makes a Living Thing?</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">The Great Inventors of the Secret</a> <a href="#">Forest</a> <a href="#">Habitat Hunting</a>
K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	<a href="#">Flowery Business</a> <a href="#">Habitat Hunting</a> <a href="#">What Makes a Living Thing?</a> <a href="#">From Seed to Plant</a> <a href="#">Hiding in Plain Sight</a> <a href="#">Busy Bees</a> <a href="#">Beehive</a> <a href="#">Egg-straordinary Nest Building</a>

## K.Weather and Climate & K-PS3-1 Energy

K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.	<a href="#">Summer Sandcastles</a> <a href="#">Spooky Shadows</a>
K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	<a href="#">The Great Inventors of the Secret</a> <a href="#">Forest</a>

## Grade 1 Lesson recommendations

### 1-PS4 Waves and Their Applications in Technologies for Information Transfer

1-PS4-1	Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	<a href="#">Hello, Is Anybody Out There?</a> <a href="#">Make Some Music!</a>
1-PS4-2	Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.	<a href="#">A Kingdom Under the Ice</a> <a href="#">Pi Hiding</a> <a href="#">Spooky Shadows</a>
1-PS4-3	Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.	<a href="#">Spooky Shadows</a> <a href="#">Pi Hiding</a> <a href="#">Vanishing Trick</a> <a href="#">A Colorful Arc</a>
1-PS4-4	Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	<a href="#">Hello, Is Anybody Out There?</a>

### 1-LS1 From Molecules to Organisms: Structures and Processes

1-LS1-1	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.	<a href="#">Flowery Business</a> <a href="#">Beehive</a> <a href="#">What Makes a Living Thing?</a> <a href="#">Hiding in Plain Sight</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a> <a href="#">Puppy Playtime</a> <a href="#">Caring for a Pet Dog</a>
1-LS1-2	Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	<a href="#">Hiding in Plain Sight</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a>

### 1-LS3 Heredity: Inheritance and Variation of Traits

#### Structure, Function, and Information Processing

1-LS3-1	Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	<a href="#">From Seed to Plant</a> <a href="#">Hiding in Plain Sight</a> <a href="#">What Makes a Living Thing?</a> <a href="#">Leaving Your Mark</a>
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# Grade 1 Lesson recommendations

## 1-ESS1 Earth's Place in the Universe

### Space Systems: Patterns and Cycles

1-ESS1-1	Use observations of the sun, moon, and stars to describe patterns that can be predicted.	<a href="#">A Colorful Arc</a> <a href="#">Summer Sandcastles</a> <a href="#">Space Adventure</a>
1-ESS1-2	Make observations at different times of year to relate the amount of daylight to the time of year.	<a href="#">Summer Sandcastles</a> <a href="#">Spooky Shadows</a>

## 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.	<a href="#">A Freezing Surprise</a> <a href="#">Lift It Up!</a> <a href="#">Carousel</a> <a href="#">Safe Landing</a> <a href="#">The Great Inventors of the Secret Forest</a> <a href="#">Pi Hiding</a>
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.	<a href="#">Planning An Escape</a> <a href="#">The Great Inventors of the Secret Forest</a> <a href="#">Floating Problems</a> <a href="#">Balancing Problems</a> <a href="#">Frantic Fall</a> <a href="#">Kindergarten of Shape Creatures</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a>
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.	<a href="#">Floating Problems</a> <a href="#">Cave Conundrum</a> <a href="#">Frantic Fall</a> <a href="#">Safe Landing</a> <a href="#">Glue</a> <a href="#">Lift It Up!</a> <a href="#">Perfect Hairstyle Solution</a>



## Grade 2 Lesson recommendations

### 2-PS1 Matter and Its Interactions

#### Structure and Properties of Matter

2-PS1-1	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	<a href="#">Hair Standing on End</a> <a href="#">The Assistant to the Assistant Robot</a> <a href="#">Hoseli's Instant Sorbet</a> <a href="#">Mystical Magnets</a> <a href="#">Friction on the Slopes</a> <a href="#">Floating Problems</a>
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	<a href="#">Hair Standing on End</a> <a href="#">Friction on the Slopes</a> <a href="#">Floating Problems</a> <a href="#">Force of the wind</a> <a href="#">Perfect Hairstyle Solution</a> <a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a> <a href="#">Colorful Drawing Book</a>
2-PS1-4	Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	<a href="#">Bottled Heat</a> <a href="#">Dough Dilemma</a> <a href="#">Hoseli's Instant Sorbet</a> <a href="#">A Freezing Surprise</a> <a href="#">Operation Ice Rescue</a> <a href="#">Cloudy Skies</a>

### 2-LS2 Ecosystems: Interactions, Energy, and Dynamics

#### 2.Interdependent Relationships in Ecosystems

2-LS2-1	Plan and conduct an investigation to determine if plants need sunlight and water to grow.	<a href="#">From Seed to Plant</a> <a href="#">Flower Business</a> <a href="#">What Makes a Living Thing?</a>
2-LS2-2	Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	<a href="#">Busy Bees</a> <a href="#">Beehive</a>

### 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.	<a href="#">Egg-straordinary Nest Building</a> <a href="#">Habitat Hunting</a> <a href="#">Beehive</a> <a href="#">Hiding in Plain Sight</a>
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# Grade 2 Lesson recommendations

## 2-ESS1 Earth's Place in the Universe

2-ESS1-1	Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	<a href="#">Foam Eruption</a> <a href="#">A Freezing Surprise</a> <a href="#">Finding Dinosaur Fossils</a>
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## 2-ESS2 Earth's Systems

### Earth's Systems: Processes that Shape the Earth

2-ESS2-2	Develop a model to represent the shapes and kinds of land and bodies of water in an area.	<a href="#">Foam Eruption</a>
2-ESS2-3	Obtain information to identify where water is found on Earth and that it can be solid or liquid.	<a href="#">Hoseli's Instant Sorbet</a> <a href="#">Operation Ice Rescue</a> <a href="#">A Freezing Surprise</a> <a href="#">Cloudy Skies</a>

## 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.	<a href="#">A Freezing Surprise</a> <a href="#">Lift It Up!</a> <a href="#">Carousel</a> <a href="#">Safe Landing</a> <a href="#">The Great Inventors of the Secret Forest</a> <a href="#">Pi Hiding</a>
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