













**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 Frantic Fall Power of the Air Friction on the Slopes Cupcake Tree
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.	Optical Illusions Mystical Magnets Hoseli's Journey Lift it Up Cupcake Tree

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.	Flowery Business From Seed to Plant Busy Bees Beehive Egg-straordinary Nest Building What Makes a Living Thing? Hiding in Plain Sight Fruity Surprise Habitat Hunting Caring for a Pet Dog
---------	--	---

K-ESS2 Earth's Systems

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

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.	Flowery Business Egg-straordinary Nest Building Habitat Hunting From Seed to Plant What Makes a Living Thing? Beehive Busy Bees
K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	A Freezing Surprise Force of the Wind The Great Inventors of the Secret Forest Whirling With The Vortex

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 Freezing Surprise Lift It Up! Carousel Safe Landing The Great Inventors of the Secret Forest Pi Hiding
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.	Planning An Escape The Great Inventors of the Secret Forest Floating Problems Balancing Problems Frantic Fall Kindergarten of Shape Creatures Cupcake Tree
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.	Floating Problems Glue Lift It Up! Cave Conundrum Safe Landing Frantic Fall

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.	Flowery Business What Makes a Living Thing? Puppy Playtime From Seed to Plant Busy Bees Caring for a Pet Dog Beehive
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	What Makes a Living Thing? Egg-straordinary Nest Building The Great Inventors of the Secret Forest Habitat Hunting
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.	Flowery Business Habitat Hunting What Makes a Living Thing? From Seed to Plant Hiding in Plain Sight Busy Bees Beehive Egg-straordinary Nest Building

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

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

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.	Hello, Is Anybody Out There? Make Some Music!
1-PS4-2	Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.	A Kingdom Under the Ice Pi Hiding Spooky Shadows
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.	Spooky Shadows Pi Hiding Vanishing Trick A Colorful Arc
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.	Hello, Is Anybody Out There?

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

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.	From Seed to Plant Hiding in Plain Sight What Makes a Living Thing? Leaving Your Mark
---------	---	--

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 Colorful Arc Summer Sandcastles Mission to Catern
1-ESS1-2	Make observations at different times of year to relate the amount of daylight to the time of year.	Summer Sandcastles Spooky Shadows

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 Freezing Surprise Lift It Up! Carousel Safe Landing The Great Inventors of the Secret Forest Pi Hiding
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.	Planning An Escape The Great Inventors of the Secret Forest Floating Problems Balancing Problems Frantic Fall Kindergarten of Shape Creatures Cupcake Tree Egg-straordinary Nest Building Habitat Hunting
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.	Floating Problems Cave Conundrum Frantic Fall Safe Landing Glue Lift It Up! Perfect Hairstyle Solution

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.	Hair Standing on End The Assistant to the Assistant Robot Hoseli's Instant Sorbet Mystical Magnets Friction on the Slopes Floating Problems
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	Hair Standing on End Friction on the Slopes Floating Problems Force of the wind Perfect Hairstyle Solution Egg-straordinary Nest Building Habitat Hunting A CAT-tabulous Christmas Doodle Book
2-PS1-4	Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	Bottled Heat Dough Dilemma Hoseli's Instant Sorbet A Freezing Surprise Operation Ice Rescue Cloudy Skies

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.	From Seed to Plant Flower Business What Makes a Living Thing?
2-LS2-2	Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Busy Bees Beehive

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.	Egg-straordinary Nest Building Habitat Hunting Beehive Hiding in Plain Sight
---------	---	---

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.	Foam Eruption A Freezing Surprise Finding Dinosaur Fossils
----------	---	--

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.	Foam Eruption
2-ESS2-3	Obtain information to identify where water is found on Earth and that it can be solid or liquid.	Hoseli's Instant Sorbet Operation Ice Rescue A Freezing Surprise Cloudy Skies

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 Freezing Surprise Lift It Up! Carousel Safe Landing The Great Inventors of the Secret Forest Pi Hiding
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.	Planning An Escape The Great Inventors of the Secret Forest Floating Problems Balancing Problems Frantic Fall Kindergarten of Shape Creatures Cupcake Tree Egg-straordinary Nest Building Habitat Hunting
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.	Floating Problems Cave Conundrum Frantic Fall Safe Landing Glue Lift It Up! Perfect Hairstyle Solution