Unfield Trip Resources
Common Core State Standards:
K-1st Grade Connections to
Amazeum Exhibit Galleries

Kindergarten:

Nickelodeon Playlab

Forces and Interactions: Pushes and Pulls

- 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.
- 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 pull.
- PS2.A: Forces and Motion –
- Pushes and pulls can have different strengths and directions. (K-PS2-1, K-PS2-2)
    - Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1, K-PS2-2)
- PS2.B: Types of interactions –
    - When objects touch or collide, they push on one another and can change motion.
- PS2.C: Relationship between Energy and Forces –
    - A bigger push or pull makes things speed up or slow down more quickly.

Nature Valley Water Amazements

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    - A bigger push or pull makes things speed up or slow down more quickly.
- ETS1.A: Defining Engineering Problems –
    - A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. (K-PS2-2)

General Mills Lift, Load, & Haul

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Cave & Canopy Climber

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.
- K-ESS2-2 – Construct an argument supported by evidence for how plants and animals (including humans) can change their environment to meet their needs.
- 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.
- ESS2.E: Biogeology
    - Plants and animals can change their environment. (K-ESS2-2)
- ESS3.A: Natural Resources
    - Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)
- ESS3.C: Human Impacts on Earth Systems
    - Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS2-2, K-ESS3-3)

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Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

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The Homestead Cabin & Farm

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Art Studio

N/A

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Outdoor Playscape

Weather and Climate

- K-PS3-1 – Make observations to determine effect of sunlight on Earth's Surface.
- K-ESS2-1 – Use and share observations of local weather conditions to describe patterns over time.
- K-ESS3-2 – Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
- PS3.B: Conservation of Energy and Energy Transfer
- Sunlight warms Earth's surface. (K-PS3-1, K-PS3-2)
- ESS2.D: Weather and Climate
    - Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1)
- ESS3.B: Natural Hazards
    - Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. (K-ESS3-2)
- ETS1.A: Defining and Delimiting an Engineering Problem
    - Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-ESS3-2)

Energizer Weather & Nature

Weather and Climate

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First Grade:

Nickelodeon PlayLab

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.
- 1-PS4-2 – Make observations to construct an evidence-based account that objects can be seen only when illuminated.
- 1-PS4-3 – Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.
- 1-PS4-4 – Use tools and materials to design and build that uses light or sound to solve the problem of communicating over a distance.
- PS4.A: Wave Properties

Sound can make matter vibrate, and vibrating matter can make sound.

- PS4.B: Electromagnetic Radiation
    - Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2)

Nature Valley Water Amazements

N/A

General Mills Lift, Load, & Haul

N/A

Cave & Canopy Climber

Structures and Property of Matter

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- 1-PS4-4 - Use tools and materials to design and build that uses light or sound to solve the problem of communicating over a distance.
- PS4.A: Wave Properties
    - Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1)

Structure, Function, and Information Processing

- 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.
- 1-LS1-2 – Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- 1-LS3-1 – Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
- LS1.A: Structure and Function
    - All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Plants

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also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)
- LS1.B: Growth and Development of Organisms
    - Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)
- LS1.D: Information Processing
    - Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs wit behaviors that help them survive. Plants also respond to some eternal inputs.
- LS3.A: Inheritance of Traits
    - Young animals are very much, but not exactly like, their parents. Plants are also very much, but not exactly like, their parents. (1-LS3-1)
- LS3.B: Variation of Traits
    - Individuals of the same kind of plant or animal are recognizable as similar but can also very in many ways. (1-LS3-1)

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Waves: Light and Sound
- 1-PS4-1 – Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
- 1-PS4-4 - Use tools and materials to design and build that uses light or sound to solve the problem of communicating over a distance.
- PS4.A: Wave Properties
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Outdoor Playscape

Waves: Light and Sound

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- 1-PS4-4 - Use tools and materials to design and build that uses light or sound to solve the problem of communicating over a distance.
- PS4.A: Wave Properties
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