Please note: Activities and correlations listed are a sampling of activities that may be conducted on your field trip. Do to time constraints, weather, and seasonal conditions, not all activities may be accomplished during the field trip. In the event of severe inclement weather, alternative activities will be conducted inside the Nature Center.
**Kindergarten**

**FUN IN THE SUN (Prairie)**

It's time for a little fun in the sun! Students will learn about the basic needs of plants and animals during a habitat building challenge and more!

| 1. **Explore the strength and depth of prairie plant roots.**  
  a. 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. |  
| 2. **Observe discoloration, drought, cracks in the earth to discover the sun's impacts.**  
  a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface. |  
| 3. **Record current outdoor temperatures of the prairie compared to different times of the year and the woodlands.**  
  a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.  
  b. Earth's Systems/K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time. |  
| 4. **Build a habitat using natural materials to keep UV-baked animals safe from the sun and elements of the weather.**  
  a. 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.  
  b. Energy/K-PS3-2: Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.  
  c. Earth's Systems/K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.  
  d. Earth's Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  
  e. 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.  
  f. Engineering Design/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.  
  g. Engineering Design/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. Discuss the concept of the four seasons and how plants and animals adapt with each season. |  
| 5. **Observe plants and animals in their natural habitat and discuss their needs. Compare needs to other habitats and animals nearby.**  
  a. 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.  
  b. Earth and Human Activity/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. |  
| 6. **Play an interactive habitat game to see how humans can greatly effect a habitat.**  
  a. Earth's Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  
  b. Earth and Human Activity/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.  
  c. Earth and Human Activity/K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or living things in the local environment. |
WHAT NEWT COULD DO FOR TURTLE (Wetlands/Pond)

Newt needs to save turtle! Can you help in this STEAM building challenge? Students will explore the pond and the basic needs of animals that live there while they help newt save turtle!

1. Listen to a story entitled, “What Newt Could Do For Turtle,” followed by a STEM challenge to help turtle off his back.
   a. 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.
   b. Earth and Human Activity/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.
   c. 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.
   d. Engineering Design/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. Discuss the concept of the four seasons and how plants and animals adapt with each season.

2. Observe water and light levels of the pond and wetland.
   a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.
   b. Earth’s Systems/K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.

3. Feed the fish and turtles at the pond and discuss their needs.
   a. 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.

4. Observe mud paths and holes that animals make.
   a. Earth’s Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

5. Play an interactive habitat game to see how humans can greatly effect a habitat.
   a. Earth’s Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
   b. Earth and Human Activity/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.
   c. Earth and Human Activity/K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or living things in the local environment.
## Kindergarten

### THE NUT JOB (Woodlands)

It's a tree-mendous day to explore the woodlands from the shaded understory to the sunny canopy and the animals living within, like squirrels.

| 1. | Explore forces of motion to figure out how squirrels transport nuts.  
|    | a. 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.  
|    | b. Earth’s Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  
| 2. | Record current outdoor temperatures of the woodlands compared to the prairie and different times of the year.  
|    | a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.  
|    | b. Earth’s Systems/K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.  
| 3. | Build a tree using natural materials to explore the different parts of a tree, the shading effects of a canopy, and compare temperatures of sun/shade areas.  
|    | a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.  
|    | b. Energy/K-PS3-2: Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.  
|    | c. 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.  
|    | d. Engineering Design/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.  
|    | e. Engineering Design/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. Discuss the concept of the four seasons and how plants and animals adapt with each season.  
| 4. | Engage in an interactive game to explore the needs of trees and squirrels, the dynamics of a habitat, and the role humans play.  
|    | a. 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.  
|    | b. Earth’s Systems/K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  
|    | c. Earth and Human Activity/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.  
|    | d. Earth and Human Activity/K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or living things in the local environment.  
| 5. | Observe plants and animals in their natural habitats.  
|    | a. 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.  
|    | b. Earth and Human Activity/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.  

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<tbody>
<tr>
<td><strong>GROW GARDEN GROW</strong></td>
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<td>After you push and pull your way through our garden, you will grow your knowledge of the basic needs of plants by planting your own seed to take home to watch grow, grow, grow!</td>
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1. Harvest seasonal vegetables (i.e. pumpkins/fall) and explore push/pull methods of harvesting.
   - a. 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.
   - b. Motion and Stability: Forces and Interactions/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.
   - c. Engineering Design/K-2-ETS1: 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.
   - d. Engineering Design/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.
   - e. Engineering Design/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. Discuss the concept of the four seasons and how plants and animals adapt with each season.

2. Observe discoloration or wilting of plants or drought and cracks in the earth while discussing the sun’s impact on plants and animals.
   - a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.

3. Make observations of the current weather to determine if it’s growing season for the garden.
   - a. Earth’s Systems/K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.

4. Listen to a story to learn about the lifecycle of a plant and their basic needs.
   - a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.
   - b. 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.

5. Help in our garden by planting seeds, watering plants, and weeding to learn about the basic needs of plants.
   - a. 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.
   - b. Earth and Human Activity/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.
   - c. Earth and Human Activity/K-ESS3-3: Communicate solutions that will reduce the impact of humans on the lands, water, air, and/or other living things in the local environment.

6. Tour a greenhouse
   - a. Energy/K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.
**Kindergarten**

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**THE 4 SEASONS**

Fall into the nature center to learn how animals adapt to each season. What will they eat, where will you sleep? Answer these questions and more during this fun field trip!

1. **Record current outdoor temperatures compared to different times of the year and discuss seasons.**
   - **Energy/K-PS3-1:** Make observations to determine the effect of sunlight on Earth’s surface.
   - **Earth’s Systems/K-ESS2-1:** Use and share observations of local weather conditions to describe patterns over time.

2. **Build a structure for animals to stay warm and dry.** (Theme changes depending on the season)
   - **Energy/K-PS3-2:** Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.
   - **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.
   - **Earth and Human Activity/K-ESS3-2:** Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
   - **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.
   - **Engineering Design/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.
   - **Engineering Design/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. Discuss the concept of the four seasons and how plants and animals adapt with each season.

3. **Through an interactive game, explore the basic needs of animals throughout each season and determine if they hibernate, migrate, or stay active.**
   - **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.
   - **Earth and Human Activity/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.
   - **Earth’s Systems/K-ESS2-2:** Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.