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.

<table>
<thead>
<tr>
<th>FIELD TRIP THEMES</th>
<th>NGSS TOPIC ARRANGEMENTS</th>
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</thead>
</table>
| SUPER SENSES (Prairie) | • Waves And Their Applications  
• From Molecules to Organisms  
• Earth’s Place in the Universe  
• Earth’s Systems |
| FISHY FUN (Wetlands/Pond) | • Waves And Their Applications  
• From Molecules to Organisms  
• Earth’s Place in the Universe  
• Earth’s Systems |
| WALK IN THE WOODS (Woodlands) | • From Molecules to Organisms |
| DIG DEEPER | • Earth’s Place in the Universe  
• Earth’s Systems  
• Earth and Human Activity  
• Engineering |
| ECO-ENERGY | • Waves and Their Applications  
• From Molecules to Organisms  
• Energy  
• Earth’s Systems  
• Earth and Human Activity  
• Engineering |
**Fourth Grade**

**SUPER SENSES (Prairie)**

Are your spidey senses tingling? We can sense a predator-prey game, hands-on discovery, and much more taking place during this field trip. Students will all use their senses to understand how super plants and animals really are!

| 1. Explore different flora in our area. | a. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. |
|  | b. From Molecules to Organisms: Structures and Processes/4-LS1-2: Use a model to describe that animals' receive different types of information through their senses, process the information in their brain, and respond to the information in different ways. |
| 2. Learn and observe about the uniqueness of animal eyes from the nictitating membrane and tapetum lucidum with hands-on experiments and visuals. | a. Waves And Their Applications/4-PS4-2: Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen. |
| 3. Explore different techniques animals transfer information. | a. Waves And Their Applications/4-PS4-3: Generate and compare multiple solutions that use patterns to transfer information. |
| 4. Observe erosion by wind and water. | a. Earth’s Systems/4-ESS2-1: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind or vegetation. |
| 5. Build a creature with special traits and structure, just for its habitat. | a. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. |
|  | b. From Molecules to Organisms: Structures and Processes/4-LS1-2: Use a model to describe that animals’ receive different types of information through their senses, process the information in their brain, and respond to the information in different ways. |
| 6. Play Little Skinks Tails in a predator prey game and learn how other animals respond to sensory activities too. | a. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. |
|  | b. From Molecules to Organisms: Structures and Processes/4-LS1-2: Use a model to describe that animals’ receive different types of information through their senses, process the information in their brain, and respond to the information in different ways. |
FISHY FUN (Wetlands/Pond)

How come some animals can live in the water and others cannot? That seems fishy!
Students will explore the special aquatic animal adaptations through a dress-up game,
visit to the pond and wetland, and more fishy fun!

1. Investigate the anatomy of a fish
   a. Waves And Their Applications/4-PS4-2: Develop a model to describe that light
      reflecting from objects and entering the eye allows objects to be seen.
   b. Waves And Their Applications/4-PS4-3: Generate and compare multiple solutions
      that use patterns to transfer information.
   c. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an
      argument that plants and animals have internal and external structures that
      function to support survival, growth, behavior, and reproduction.

2. Experiment with the lateral line of a fish
   a. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an
      argument that plants and animals have internal and external structures that
      function to support survival, growth, behavior, and reproduction.
   b. From Molecules to Organisms: Structures and Processes/4-LS1-2: Use a model to
      describe that animals’ receive different types of information through their senses,
      process the information in their brain, and respond to the information in different
      ways.

3. Observe erosion by wind and water.
   a. Earth’s Systems/4-ESS2-1: Make observations and/or measurements to provide
      evidence of the effects of weathering or the rate of erosion by water, ice, wind or
      vegetation

4. Discovery aquatic fossils of Illinois waterways.
   a. Earth’s Place in the Universe/4-ESS1-1: Identify evidence from patterns in rock
      formations and fossils in the rock layers to support an explanation for changes in a
      landscape over time.
**Fourth Grade**

**WALK IN THE WOODS (Woodlands)**

This field trip is no walk in the park... It's a walk in the woods! Discover the ins and outs of trees and the animals that call them “Home Tweet Home”.

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<tbody>
<tr>
<td>1.</td>
<td>Explore the animals of the forest, especially birds, and try out bird beak buffet.</td>
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<tr>
<td></td>
<td>a. From Molecules to Organisms: Structures and Processes/4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</td>
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<tr>
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Fourth Grade

DIG DEEPER
It’s time to dig deeper! Students will learn to go beyond the surface and explore what’s beneath their feet waiting to be discovered. Fossils, resources, and more ‘deeper’ understanding await!

1. Touch and observe fossils discovered in Illinois.
   a. Earth’s Place in the Universe/4-ESS1-1: Identify evidence from patterns in rock formations and fossils in the rock layers to support an explanation for changes in a landscape over time.

2. Observe erosion by wind and water.
   a. Earth’s Systems/4-ESS2-1: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind or vegetation.

3. Build a living map of Illinois topography (glaciers, fossilized rainforest)
   a. Earth’s Systems/4-ESS2-2: Analyze and interpret data from maps to describe patterns of Earth’s features.

4. Learn about Illinois natural resources
   a. Earth and Human Activity/4-ESS3-1: Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

5. Design and build to protect from natural events. ??? Build what???
   a. Earth and Human Activity/4-ESS3-2: Generate and compare multiple solutions to reduce the impacts of natural earth processes on humans.
   b. Engineering Design/3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost.
   c. Engineering Design/3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
   d. Engineering Design/3-5-ETS1-3: Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
Prepare to be blown away as students explore natural resources—wind, water, and solar energy. Students will leave energized about a more sustainable future!

1. Explore the installed solar panels to discovery energy storage and transmission.
   a. Energy/4-PS3-2: Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
   b. Energy/4-PS3-4: Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

2. Build a topography map of Illinois
   a. Earth’s Systems/4-ESS2-2: Analyze and interpret data from maps to describe patterns of Earth’s features.

3. Observe erosion by wind and water.
   a. Earth’s Systems/4-ESS2-1: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind or vegetation.

4. Learn about Illinois natural resources.
   a. Earth and Human Activity/4-ESS3-1: Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

5. Design and build a solar energy model system.
   a. Earth and Human Activity/4-ESS3-2: Generate and compare multiple solutions to reduce the impacts of natural earth processes on humans.
   b. Engineering Design/3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost.
   c. Engineering Design/3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
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