Indoor Activities

Insects of the Prairie (grades K–5)

Explore the creepy-crawly world of insects that call the Missouri prairies home! This hands-on program consists of exploratory activities that help students learn about insect classification and the different parts of insects' bodies. Students will create their very own bug mask and have the opportunity to tour our native plant garden at their leisure and to observe insects such as the dogbane leaf beetle, meadow spittle bug, and the red milkweed beetle in their natural habitat.

Grassland Birds of the Midwest (grades K–5)

Did you know there are an estimated 9,000 species of birds in the world? Through a presentation, students will learn how to identify some of the many birds that inhabit Missouri's grassland areas. Students will also learn where these birds make their nests, what many of these species eat, hear their unique calls, and many other interesting birding basics. Following the presentation, students will create and decorate their own, one-of-a-kind bird feeder out of materials provided by our staff.

Food Chains and Food Webs (grades 1–4)

Food chains describe the linear eating relationships between species within an ecosystem. This presentation contains exciting information about many of the plants and animals that make it possible for producers, consumers, predators, and prey to thrive in Missouri and on Missouri's prairies.

Students will learn about the many interconnections that exist within food chains and become familiar with how a food web extends the food chain concept from a simple linear pathway to a complex network of interactions. During the hands-on portion of this activity, students will create their own food chain to help them recall the primary components that make up an ecosystem.

Indoor Activities

Tower of Power (grades 3–8)

Do you like science? Do you like math? If so, someday you might want to become an engineer! During this program, students learn about several different disciplines in engineering and discuss how engineers solve problems related to the environment, space, chemistry, and mechanics. Students will also discuss some of the area's marvels in engineering, like the St. Louis Arch. Following this presentation, participants will work in teams to see who can build the tallest arch using only the materials that are supplied for the project.

Recycling and Beyond (grades 2–8)

Americans produce almost 1,600 pounds of trash a year, which amounts to approximately 4.3 pounds of trash per person each day! This program describes what happens to our garbage when we throw it away and why recycling is more important than ever. Students will learn about the steps of the recycling process, waste reduction, composting techniques, and the many items at the Weldon Spring site that are made from recycled materials.

The ABCs of Bees (grades 1-5)

Bees are some of the most important insects in the entire animal kingdom. This presentation shares many interesting bee basics such as differences between honey bees, carpenter bees, and bumble bees, as well as queens, workers, and drones. Students will learn about a bee's life cycle, why only female bees can sting, and how some bees can actually dance! Groups participating in this program can also see our collection of non-living bees up close. For the hands-on portion of this program students will create their very own bee finger puppet out of materials provided by our staff.

To schedule a field trip or guest speaker, contact Brendan McGhee, Marketing Specialist

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U.S. DEPARTMENT OF ENERGY

Legacy Management

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06/2013

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Indoor Activities

Butterfly Life Cycles (grades K–5)

Did you know that advanced insects such as butterflies and moths have a "complete" life cycle? This program teaches students the order of the four separate stages in the life cycle of a butterfly and the differences between them. Students will also learn how to tell the difference between butterflies and moths and how to identify some of the common and rare butterflies that inhabit Missouri prairies. Students will enjoy exploring our colorful collection of non-living species. Following this presentation, students will create their own butterfly feeders, an activity that our staff will use to teach them even more about butterflies.

A Sea of Grass (grades 1–5)

Students are given a 15 to 25 minute presentation about some of the unique plants, animals, and insects that live in Missouri prairies and at the Weldon Spring site's Howell Prairie. Student's will learn how Native Americans and early European settlers used these plants in their daily lives for things such as navigating the prairie, medicinal purposes, and even for making toys.

Soil . . . It's More than Just Dirt (grades 1–3)

Did you know that soil is one of our most important natural resources? In this activity, students explore the wonderful world of soil by learning what soil is made from, how it changes over time, and the differences between sandy, silty, and clayey soils.

Students will examine three different types of soil and compare factors such as color, texture, size, and odor. Students will also gain an understanding of soil profiles and soil horizons.

Rocks (grades 2–5)

Our rocks activity begins with a 15 to 20 minute presentation that discusses sedimentary, metamorphic, and igneous rocks, as well as minerals. Next, students will learn how to identify different samples of each type of rock. Students will also be able to examine the different types of fossils and rocks in our extensive collection from all over the world.

Indoor Activities

Solids, Liquids, and Gases (grades 2–8)

Did you know that all matter is made from small particles that are in constant motion? This program introduces the concepts of how molecules are arranged in solids, liquids, and gases. Following this presentation, students will work in small groups to create a simple chemical reaction that demonstrates the properties of solids, liquids, and gases. For higher grade levels, properties of plasmas, solutions, and mixtures will also be discussed.

Scavenger Hunt (grades 3–12)

In this activity, students will work in small groups to find answers to questions based on the Interpretive Center's vivid, interactive displays. This activity is designed to help individuals learn more about this site's massive, 18-year, $905 million environmental cleanup, the U.S. Department of Energy's mission, and the early history of the area.

pHear Factor (grades 4–12)

Water quality testing is done on a regular basis at the Weldon Spring site, and pH is one of the most fundamental tests. In this activity, students work in teams to explore the meaning of the pH scale and test a variety of substances using laboratory-grade materials. Students will also be able to use other types of technical equipment to test pH and other parameters.

Radiation 101 (grades 5–12)

This program provides students with a unique learning experience that discusses the in depth history of the Weldon Spring area and the site's environmental clean up. During the activity portion of this program, students use Geiger-Müller counters to scan household objects for the presence of radioactivity, and then discuss why certain objects are radioactive. Additionally, students will be educated about the different types of protective gear that workers wore during our environmental cleanup; participants might even have the opportunity to wear the gear.

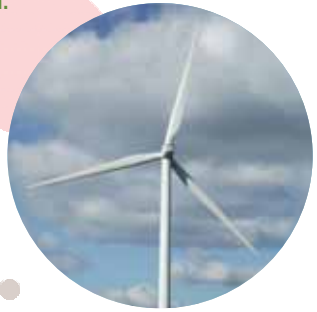
Subsurface Investigations (grades 5–12)

Groups will gain a basic understanding of what an aquifer is and how surface contamination can affect lakes, rivers, and groundwater drinking sources. Our tabletop groundwater model demonstration will show students how a little pollution can travel a long way. Our exciting hands-on activity illustrates the properties of different types of soil and bedrock layers. This activity helps to unlock some of the mysteries that are beneath the surface of the earth.

Indoor Activities

Renewable Energy (grades 6–8)

Did you know that renewable energy plays an increasingly important role in meeting our nation's energy needs? When renewable energy sources are used, the demand for fossil fuels is reduced! This program educates students about the five most common renewable energy sources and how they are used today. Students will participate in an activity to learn more about how clean energy systems function.



Outdoor Activities

Disposal Cell Walking Trip (grades K–12)

Students hike (approximately one-half mile round trip) to the viewing platform at the top of our 75-foot tall disposal cell. Individuals visiting the top of the disposal cell will be able to enjoy the 360° view of the metropolitan skyline. This activity encourages discussion about human impact on the environment.

Orienteering Challenge (grades 5–12)

Individuals learn cross-country navigation skills using a map and a clue sheet. Small groups use detailed maps of the Weldon Spring site to find 18 checkpoints placed at various locations. At each checkpoint, students must record a letter or a number that will lead them to a final secret location. This is a great activity to enhance group dynamics and group problem solving.

Native Plant Walk and Talk (grades 2–12)

Students stroll through our 8-acre garden of native Missouri plants and the 150-acre Howell Prairie to learn about prairie ecosystems and become proficient in native plant identification techniques. More than 200 species of native plants are represented at the Weldon Spring site.

NOTE: This activity is only available late spring through early fall.