

shaping connections to
art & nature

Learning Points:

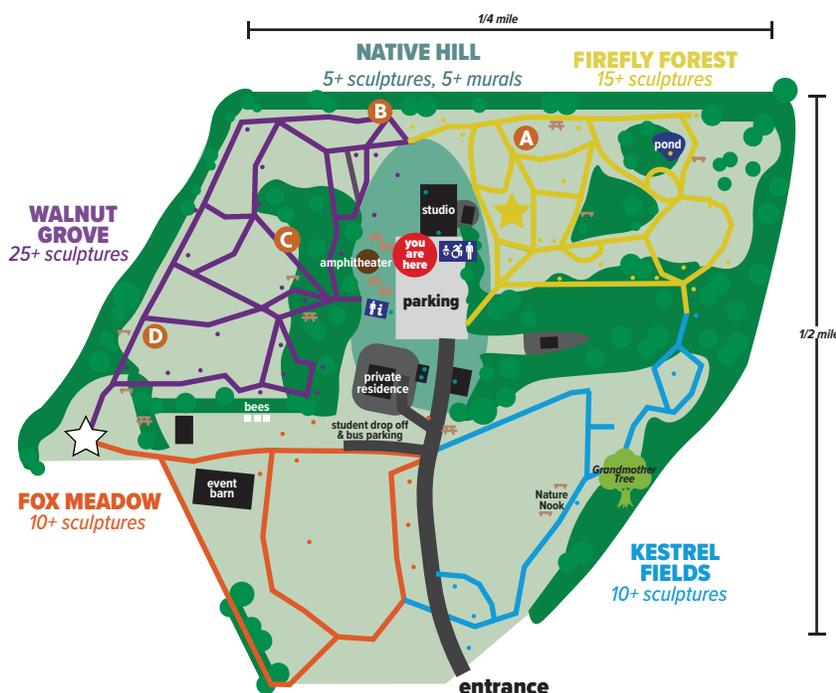
- **Investigate** structures, functions, and adaptations in organisms visible or represented in the park.
- **Analyze** how ecosystem interactions influence biodiversity.
- **Respond** to how artists use themes from nature to express scientific ideas.
- **Create** and present a visual model (sketch, dance) that demonstrates an observed adaptation.
- **Connect** art and science through observation, modeling, and evidence-based explanation.

Kentucky Academic Standards:

- **Science:** MS-LS1-1, 4 & 5; MS-LS2-1, 2, 4 & 5
- **Visual & Performing Arts:** VA:Cr1.1.6, VA:Cr2.2.6, VA:Pr6.1.6-8, VACn11.1.6-8, VA:Cr1.2.7, VA:Re7.1.8, VA:Re7.2.8

Before You Visit: Review foundational art concepts and vocabulary with **KET PBS Learning Media’s “Styles of Visual Art”** video and lesson plan resources. If the concept of adaptation and evolution is new to your students, explore **KET PBS Learning Media’s “Understanding Plant and Animal Adaptations”** lesson plan resources. Select parts of **this video** to share with students, and engage their reflections and questions. (Note: Some of the sculptures featured in the video are no longer on exhibit, and the park is now 40 acres, changes that highlight how the park is always evolving.) Review how to explore the park at www.josephinesculpturepark.org/visit.

Supplies: Clipboard & paper or notebook, pen/pencil.



Art & Nature Walk - 20 Minutes Gather around the map kiosk beside the Art Barn or in the amphitheatre. Introduce Josephine Sculpture Park as a place where science (ecology) and art connect, and that you will explore how art can help us understand ecosystems and adaptations. Lead a short walk to up to 3 of the following sculptures with organic shapes or themes:



Erika Strecker
Mass Extinction



Guiding Questions: What materials from nature do you notice in this sculpture? What plants or animals do you see in/on this sculpture? Erika writes, “Public art gives shape to our shared identities and experiences.” How does her sculpture relate to this statement?

Kentucky artist, Erika Strecker, created this sculpture using steel and cast concrete. The stone features a calamite fossil, an extinct plant that existed over 330 million years ago. Calamite fossils are common in Kentucky coal fields and sedimentary rocks formed in environments of rapid flooding and sedimentation. The lichen growing on the rock demonstrates how outdoor sculptures change over time due to the surrounding environment.



Observe:

As you walk from the young forest (Firefly Forest) through an open field (Native Hill) to get to the next sculpture, tune into your senses. How does the light, temperature, and noise change across habitats?



Kari Reardon's
Lee



Guiding Questions: What living organism does this sculpture resemble? What adaptations might the organism have to survive in this environment?

The artist, Kari, uses her personal memories and dreams, as well as biology and fairy tale characters, to inspire her art. She uses mixed media, like the steel and stone used in Lee, to play with texture and the blur between organic and human-made materials. She likes that her sculptures seem to be growing or moving!



Observe:

As you meander through the paths, keep an eye out for signs of wildlife (rabbit tracks, deer scat, burrows, and food sources like wild raspberries).



Riley Fichter's *Rii'joo'vah'nay'shin*



Guiding Questions: How do you think the artist used the natural surroundings to inspire their design? What environmental pressures might produce an animal that resembles this sculpture?

Artist Riley Fichter likes to create art using repurposed materials that would otherwise be trash (psst - keep an eye out for his other sculpture in the park made of old telephone poles!). He reused steel cables and scrap steel tubes to create this sculpture! The sculpture's snake-like shape was inspired by the wildlife and wind flow of the park's landscape.



Observe: As you walk through the meadow across from Riley's sculpture, notice the diversity of plant species you can see from the path. Do you observe any wildlife, such as birds or insects?



Virginia Elliott's *L'aigle*



Guiding Questions: Beak shape is an example of a bird adaptation. What diet does this sculpture's beak shape suggest? What does the artists' choice of material communicate about the animal represented?

Virginia carved this sculpture from granite to monumentalize the bald eagle, a formerly endangered species in the United States that is prominent in American iconography and Native American imagery. In the mid-1900s, U.S. bald eagle populations faced extinction due to habitat loss, illegal shooting, and contamination of their food source by the insecticide DDT. In 1978, the species was listed as endangered under the Endangered Species Act. Thanks to habitat protection, conservation efforts, and banning DDT, bald eagles are no longer endangered and are common to see in many parts of the U.S., including Kentucky.



Observe: Have you noticed bird houses around the park? JSP and trained volunteers maintain a "Bluebird Trail" of 11 nest boxes, to create healthy habitat for eastern bluebirds, whose populations are declining in Kentucky due to habitat loss and competition.

Ecology Walk – 20 minutes

Divide students into small groups to explore a section of the park and gather evidence of ecosystem interactions and resource availability. Encourage students to observe plant diversity (leaf shapes, growth patterns), animal signs (nests, insects, tracks), microhabitats (logs, shade vs. sun, moss), and water and soil conditions.

In their field notebook, students describe or sketch the following based on what they observe or infer:

1. **One producer**
2. **One consumer**
3. **One decomposer**
4. **A limiting resource (light, water, space, nutrients)**
5. **Evidence of an ecological interaction (predation, competition, symbiosis)**

The Art of Adaptation – 15 minutes

In the same small group, students design and present a quick visual model (sketch, diagram, pose or movement using their bodies) that demonstrates one adaptation they saw or inferred in the park. Students explain the structure, function, and environmental challenge the adaptation addresses, citing evidence from their observations. (Examples include curved leaf shapes to reduce water loss or camouflaged insects on tree bark.)



Reflect: How would these organisms be affected by a change in the ecosystem, such as habitat destruction (deforestation), climate change (severe drought, flood), or conservation efforts (planting native wildflowers and grasses)?

Closing Circle - 5 Minutes

Clean up any trash or supplies to keep the park great for future visitors.



Reflect: How did the art help you think differently about the environment? What is one thing you want to learn more about based on your visit today?

After You Visit

Bridge your field trip experience to a deeper dive on a related science topic with one of the following KET PBS LearningMedia resources and lesson plans:

- [**Careers in Environmental Science: Landscape Architect**](#)
- [**Careers in Environmental Science: Environmental Educator**](#)
- [**Climate change and farming**](#)
- [**Citizen Science: Celebrate Urban Birds**](#)
- [**Hiking and Wellness**](#)