Overall Goal: Being a Friend to the Earth facilitated via Observation & Empathy

Key Concepts Related to Animals in the Wild

We will focus on what animals need to survive so children begin to understand the importance of safeguarding the habitats that provide animals with the resources to live. Animals need food, water, shelter, and space in their habitats. We will help children to identify the habitats in nearby natural spaces (e.g., playground, CMU campus) and to observe and imagine which animals could meet their needs in these spaces. Focusing on animals' needs fosters children's empathy for nature by practicing perspective taking and identifying local natural spaces as animals’ homes.

(Adapted from “Habitat Hunt” in Access Nature)

Developmental Benefits of Exploring Animals in the Wild

• **Self-Esteem & Independence** – empathizing with peers and animals, self-regulating emotions and impulses related to contact with animals, using self-care skills such as hand-washing after contact with animals

• **Interaction & Cooperation** – caring for the natural environment, respecting animals and their diverse attempts to meet their needs for food, water, shelter and space, taking animals’ perspectives and respecting their rights, identifying animal communities and the value of interdependence within and among species

*The Earth and I* (Frank Asch, 1994)
The Earth and I are friends.
Sometimes we go for long walks together.
I tell her what's on my mind.
She listens to every word.
Then I listen to her.
The Earth and I are friends.
We play together in my backyard.
I help her to grow. She helps me to grow.
I sing for her. She sings for me.
I dance for her. She dances for me.
When she’s sad, I'm sad.
When she’s happy, I’m happy.
The Earth and I are friends.
- **Communication** – listening for animal sounds and identifying them, learning new vocabulary to describe features of animals and habitats, considering varieties of animal communication with their own species and others, writing labels or drawing illustrations for explanations and stories, etc.

- **Discovery & Exploration** – exploring the lives of animals in our local environment and beyond, observing carefully to be able to categorize, compare and contrast diverse animals and their life cycles, using observation tools such as magnifying glasses and measurement devices, associating animal adaptations with their survival advantages, predicting the ways animals will behave in different situations or weather / seasonal conditions

- **Physical Capabilities / Health & Safety** – strengthening eye-hand coordination for observing, measuring, and interacting with animals in safe ways, both during animal ambassador programs and outdoors, using large motor movements to emulate animal movements, following health and safety procedures related to interacting with animals

- **Artistic Expression & Appreciation** – representing a wide range of animals in a variety of artistic ways, including 2D and 3D visual arts, music, creative movement, and dramatic play & puppetry, appreciating the representations of other artists

**Adult Support for Explorations**

[I wonder … I think … I learned …]

- Explore **WITH the children** to gently support their investigation without directing or frustrating them.
- Take the **child’s lead**, follow the child’s interest, and provide only the level of support they need.
- Allow children to photograph animals and their tracks, collect feathers, snake skins, etc. and create their own **journal / museum** with their discoveries.
- Encourage children to continue observing the same animals for a **period of days**.
- Foster play related to animal themes using a variety of props, such as puppets, pretend animals, and habitat elements to **extend the explorations** and allow time for integrating ideas into a **conceptual structure**.

**Research on Developmental Change in Understanding**

- **Deborah Kelemen** (Boston University) studies developmental change in children’s explanations of living and natural phenomena, including children’s intuitive concepts related to evolution by natural selection. Natural selection is counterintuitive because it conflicts with intuitions that traits develop to serve purposes, that events happen by design, and that species do not change. Based on Kelemen’s research, her research team designed a children’s book and related teacher materials to begin introducing key biological principle of adaptation by natural selection.
Additional Resources

Explore Wild Cams and Zoo Cams!

Project Noah
Opportunity for families to act as citizen scientists documenting their observations of backyard and neighborhood wildlife.  
(https://www.projectnoah.org/)

The theme for World Wildlife Day 2018 is 'Big Cats'. Using the expanded definition of big cats, the Day will raise awareness on the conservation of the lion, tiger, leopard and jaguar, as well as the cheetah, snow leopard, puma, clouded leopard and related species. Big Cats is the Extended Day Theme for our whole school unit.  
(http://sdg.iisd.org/events/world-wildlife-day-2018/)

US National Wildlife Week (March 14-18, 2018)
National Wildlife Week is designed to connect budding conservationists of all ages to the awesome wonders of wildlife. Every spring young people across the nation get the chance to learn more about a wide range of animals native to North America, their habitats, and programs that help wildlife.  
(https://www.nwf.org/Educational-Resources/Education-Programs/National-Wildlife-Week)