

University of Michigan Dearborn Environmental Interpretive Center Pond Explorations Program, Pre and Post-Visit Resources: Grades 6-8

Welcome to the Pond Explorations program resource page. Here you will find links to resources pertaining to this program, along with important concepts and relevant literature. Certain links are for short, educational, program-specific videos, while others are images, sounds, worksheets, or fact sheets related to the program. Descriptions are included with the links. The pre-visit resources will help introduce students to our Pond Explorations program and the post-visit resources will help reinforce their experiences.

All of the resources provide supplementary and complementary information for the program. Enjoy!

Pre-Visit Resources:

Introductory Concepts:

Habitat - place where plants and animals live

Ecosystem - a community of interacting organisms and their environment. Living things interact with each other and also with non-living things like soil, water and air.

Adaptation - a trait or behavior that helps an organism survive and reproduce. Can be physical or behavioral.

Metamorphosis - process some animals go through to become adults

Photosynthesis - process in which green plants use sunlight to make their own food

Sights and Sounds: (video and/or audio)

Frog Sounds (recordings of calls of frogs found in the Midwest, including Michigan)

Time lapse of dragonfly transformation (2 minute video from Smithsonian Channel with skippable ad at start)

<https://www.youtube.com/watch?v=cyt4HtcMPgg>

Literature:

Ecosystems - Life in a Pond by Stuart Kallen

Ponds: Biomes & Ecosystems by Yvonne Franklin

Additional Information/Worksheets:

Aquatic Insects (images and descriptions of Michigan aquatic insects)

https://www.michigan.gov/documents/dnr/Aquatic_insect_guide_692087_7.pdf

Creatures of Pond (3 page document with labeled drawings of aquatic creatures)

<https://www.backwoodsmama.com/wp-content/uploads/2019/05/Pond-Minibeasts-Identification.pdf>

Aquatic Insects (11 page document with great images/descriptions of aquatic insects that are found in the pond)

Post-Visit Resources:

Concepts to Reinforce: (in addition to the introductory concepts)

Biodiversity - the variety of life in a habitat or ecosystem

Herbivore/Omnivore/Carnivore - eats only plants/eats both plants and meat/eats only meat

Camouflage - the ability to blend in with one's surroundings

Predator/Prey - the hunter/the hunted

Complete/Incomplete Metamorphosis - 4 stages (egg, larva, pupa, adult) vs. 3 stages (egg, nymph, adult)

Decomposition - the process of breaking down organic material into simpler parts

Additional Information: (articles, documents, videos, images)

Aquatic insect guide (5 page document with images and concepts that reinforce pond program-includes metamorphosis and adaptations of insects)

<https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/7/3643/files/2013/09/Aquatic-Insect-Guide-1fa0q8v.pdf>

Predator/Prey (expands on concepts introduced at pond, including adaptations, and includes student activity)

<https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/7/3643/files/2013/09/Predator-Prey-Guide-1rtq5i3.pdf>

How a Tadpole transforms into a Frog (really cool, 3 minute video-short skippable ad at start)

<https://www.youtube.com/watch?v=gmlaclb3K2o>

Insect Adaptations (document that includes mouthpart adaptations and specific habitat adaptations)