

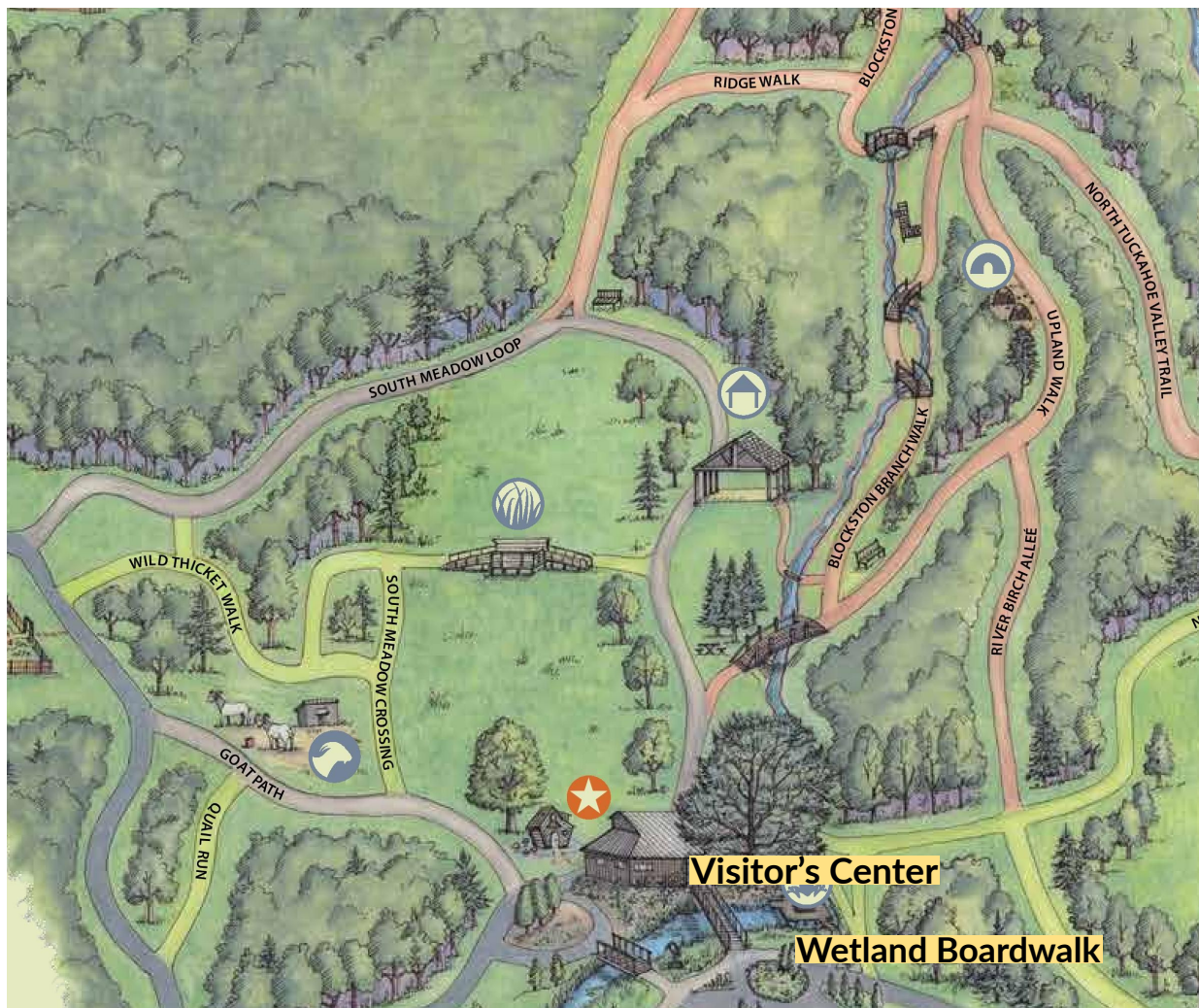
Wild about Wetlands

A Self-Guided Field Trip for Grades 3--5

Welcome to Adkins Arboretum! The Arboretum is a 400-acre native garden and plant preserve. Native plants have been evolving here since the last polar ice age, 10,000 years ago. Animals depend on native plants for food and shelter.

Self-guided field trips **MUST** be scheduled in advance. To schedule yours, email Madison Palmer at mpalmer@adkinsarboretum.org.

Fee: \$5/student. Groups will receive access to nets and buckets when they check in at the Visitor's Center.

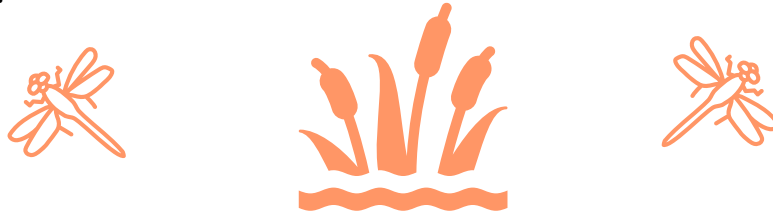


This program is aligned with:

- **Next Generation Science Standard LS2-1 Ecosystems: Interactions, Energy, and Dynamics**
- **Next Generation Science Standard LS4-1 Biological Evolution: Unity and Diversity**
- **Maryland Environmental Literacy Standard 2: Human Dependence on Earth Systems and Natural Resources.**

Lesson Plan

1. Ask students to sit on the wetland boardwalk. “We are sitting over a wetland! What is a wetland? Wetlands are places where land and water meet. They have three key characteristics: they’re wet part or all of the year, they have special soils, and they have special plants. There are many kinds of wetlands: bogs, fens, marshes, swamps, moors, and fens are some examples. Wetlands can contain fresh or saltwater. This wetland is a freshwater marsh.”



2. “In the past, many people thought of wetlands as smelly, oozy, undesirable places. Now we know that wetlands are vital for the health of our planet! In this bag, I have objects that represent some of the ways wetlands benefit the earth. I’ll need volunteers to pull out objects and try to figure out the benefit that each object represents.” Have students pull out items from the wetland bag (you will receive this when you check in at the front desk!) Discuss.

- **Toy bed: resting place for migratory birds**
- **Sponge: absorbs excess water caused by runoff; retains moisture**
- **Wire whisk: mixes nutrients and oxygen into the water**
- **Sieve or strainer: strains sand, mud, debris and litter from the water**
- **Coffee filter: filters smaller impurities from the water**
- **Toy cradle: provides a nursery for young wildlife**
- **Antacid: neutralizes toxic substances**
- **Soap: cleanses the environment**
- **Rice: provides nutrient rich food**



3. “Did you know that wetlands support a greater diversity of plants than any other habitat in the world except for rain forests? Wetland plants in turn provide habitat for many animals. What kinds of animals do you think live in or alongside the Arboretum’s wetland?”

4. “We are going to use nets to search for aquatic organisms. These are animals that live in the water. Some will be familiar to you, like tadpoles and snails. Others may be the larval form of an insect that is undergoing metamorphosis.” Share Aquatic Organism visual, Dragonfly Metamorphosis visual, and tips for using nets. Hand out nets. (You will gain access to nets and buckets when you check in at the Visitor’s Center. It’s a good idea to pre-fill the buckets by lowering them into the wetland with a rope.)

Tips for Using Nets:

- Kneel inside the boardwalk rim, not on it.
- Be aware of students around you so that you don’t accidentally hit someone.
- You may move around the boardwalk, but leave the buckets where they are.
- Try not to get mud in the buckets.
- Handle creatures gently and put them in the buckets as soon as possible.

5. Allow students about 15 minutes for critter scooping. Then have students stack their nets and take a “bucket walk” so they can see what everyone found. Gather students and discuss their experience. “As you can see, many living things depend on wetlands for food and shelter. What can we do to take care of wetlands?”



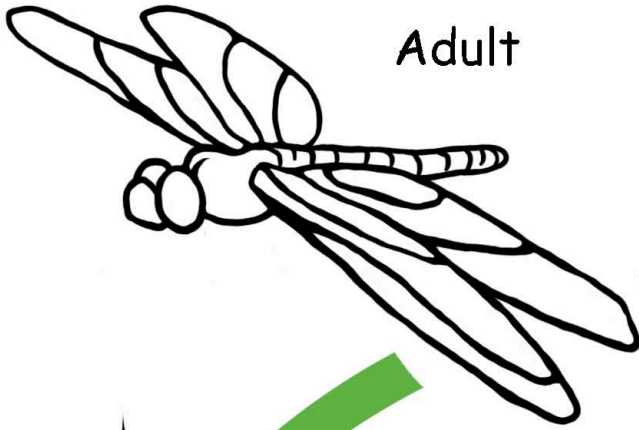
**DON'T FORGET TO RETURN NETS
AND BUCKETS TO THE BIN AND
LOCK IT! RETURN THE WETLAND
BENEFITS BAG TO THE FRONT
DESK. THANK YOU!**



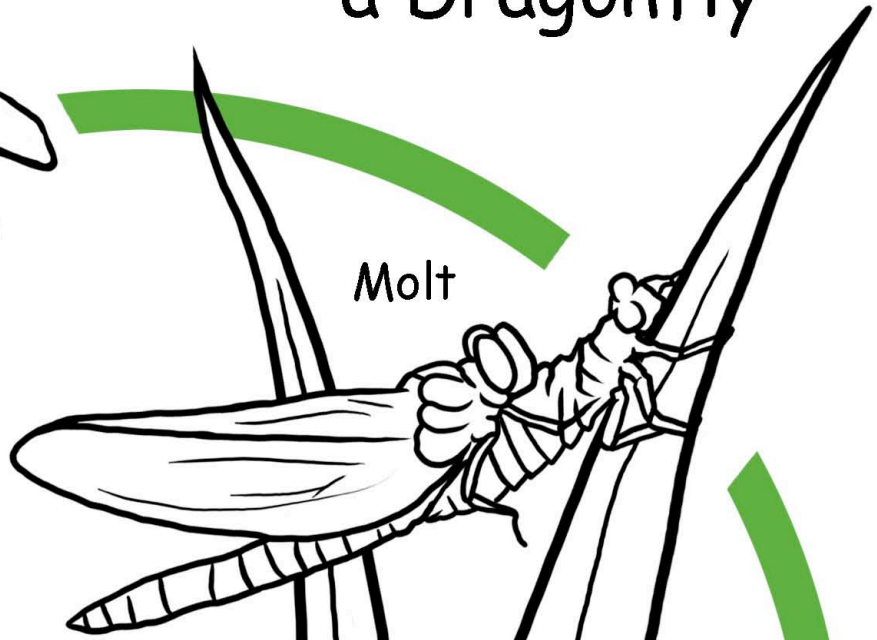
ADKINS ARBORETUM

Life Cycle of a Dragonfly

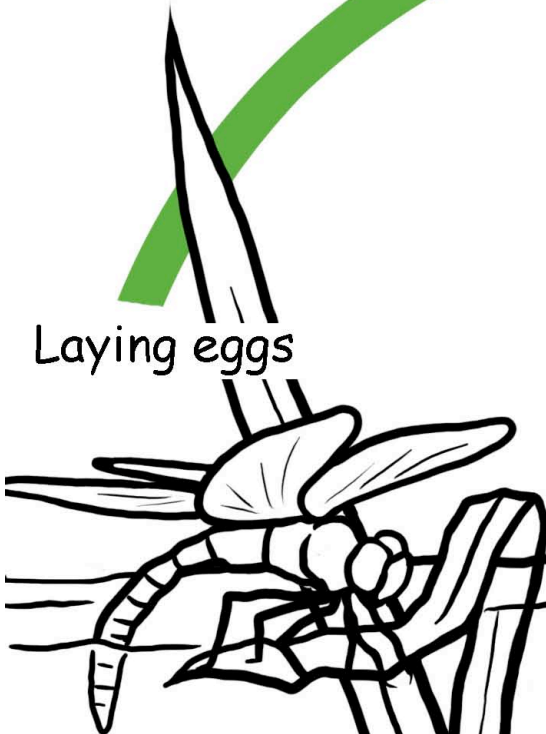
Adult



Molt



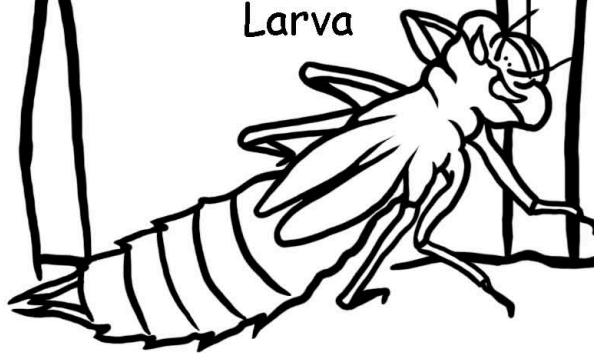
Laying eggs



Eggs



Larva



AQUATIC ORGANISMS



WETLAND PLANTS

