

# Pond Life

## On-Site Activity Summary

### Grade 1

A vast array of organisms lives in and around a pond. Students will have the opportunity to explore, analyze, discover and interact with several of these organisms while at the Elm Fork Education Center (EFEC). The students will make discoveries about the similarities as well as the differences concerning some of the physical characteristics among these organisms. They will also make some basic discoveries involving how these organisms are able to meet their needs in order to survive. In the post-visit activity, the students will work toward a deeper level of exploration concerning various other characteristics of reptiles, amphibians, and insects.

While exploring aquatic studies with the Elm Fork Instructor, students will be able to interact with live amphibians, reptiles, and insects. They will be encouraged to recognize attributes of each and analyze similarities and differences of the various organisms. Students will use a science journal to draw their interpretations of the organisms that they observe. These journals will be used to help the students with their further studies during the post-visit activity.

#### TEKS CONNECTIONS:

##### Science TEKS - First Grade:

- 1.1 (A) – Students will demonstrate safe practices during field investigations.
- 1.2 (A) – Students will ask questions about organisms, objects, and events.
- 1.2 (C) – Students will gather information using simple equipment and tools to extend the senses.
- 1.4 (C) – Students will measure organisms and parts of organisms, using non-standard units such as paper clips, hands, and pencils.
- 1.6 (B) – Students will observe and describe the parts of plants and animals.
- 1.9 (A) – Students will identify characteristics of living organisms that allow their basic needs to be met.
- 1.9 (B) – Students will compare and give examples of the ways living organisms depend on each other for their basic needs.

#### Field guide to key physical characteristics for observation at EFEC:



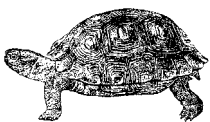
Mayflies are aquatic insects. The nymphs (babies) live underwater for one to three years and then emerge to fly to a nearby plant where they will molt one more time before becoming adults. Adult Mayflies range in size from 1 to 3 cm long and have two or three long tail filaments.



Dragonflies are aquatic insects. Dragonfly nymphs live and grow underwater. Adult dragonflies have wingspreads of 5 to 8 cm. Dragonflies have specialized mouthparts that are adapted for thrusting forward to bite and scoop up their prey, from the water as nymphs, and from the air as adults. When they are not catching prey, these mouthparts are folded under the head.



Mosquitoes lay their eggs on water surfaces, and therefore depend on the pond. The larvae are aquatic and very active. The adult mosquitoes have wings. A key characteristic of the mosquito is its straw like mouthpart, which is called a *proboscis*.



Turtles have hard shells, which enclose their bodies. The upper shell of the turtle is known as the carapace and the lower shell is called the plastron. Pond turtles dig holes along the muddy shore of the pond to lay their eggs.



Frogs have skin that is generally smooth and moist. They have bulging eyes and external eardrums tucked behind their eyes. Frogs have sticky tongues that help them trap insects, as well as webbed feet to help them swim fast. Frog eggs are laid near the water plants at the very edges of the pond. Baby frogs are called tadpoles.

Above information adapted from, "Pond Life On-Site Activity", Elm Fork Education Center & Denton ISD, 1998.