



Macroinvertebrate Match-Up

Pond Life Pre-Trip Activity



Preparation: Print Macroinvertebrate Match-Up Cards and cut them apart. You will need one set of cards for every three to five students, depending on the group size you choose, and one for the teacher.

Introduction: Ask students to name some pond animals. List the animals on the board. Students will usually name large animals like turtles and fish; most do not realize that the most abundant pond animals are small and live under the water. Use this activity to teach your class some basic facts about these animals, called macroinvertebrates.

Macroinvertebrates Discussion: Give each student a macroinvertebrate card. Use the notes below as you introduce the organisms.

The animals on the cards are *macroinvertebrates*:

- “Macro” means it can be seen with the naked eye (without a microscope). These animals are fairly small, but they are not tiny. (There are many microorganisms in the pond too.)
- “In” means “not” or “without”.
- Vertebrae are the bones in your spine. Animals with backbones are called “vertebrates”.
- So “macroinvertebrate” means: animals that have no backbones and are big enough to see without a microscope.

Students are likely to find macroinvertebrates like the ones on the cards in the ponds at Armand Bayou Nature Center. (Note: the pictures on the cards are not to scale.) By playing Macroinvertebrate Match-Up, students will become familiar with these creatures. At the nature center, students will learn more about how to find and catch these and other small pond animals.

Macroinvertebrate Match-Up Game Procedure

Divide the class into approximately equal teams, with 3 to 5 students per team. Give each team one set of macroinvertebrate cards. Give students a few minutes to look at the different organisms and read the facts.

Explain the game directions:

- The teacher will read a macroinvertebrate description. (See “Description Ideas”.)
- Teams have 10 seconds to find an animal that matches the description. (Adjust the time to fit the skill level of your students.) They must place the correct macroinvertebrate card face down in a designated location (at the front of a desk, on a chair, etc.) before the time is up.
- Groups that pick the correct macroinvertebrate on time earn a point.



- A few of the descriptions have more than one correct answer. You may choose to award multiple points if students can find more than one correct organism.
- If teams are randomly guessing, you may create a penalty system where teams lose a point for an incorrect guess.
- Whichever team has the most points at the end of the game wins.

Description Ideas

You may read a description straight from a cards (Just choose any bulleted point.) Notice that a few of the descriptions are repeated. Use some of these higher-level thinking questions to further challenge your class:

- Which macroinvertebrates are insects? *Dragonflies, damselflies, water scorpions, predacious diving beetles, and water striders*
- Which have exoskeletons? *All (Shells of mollusks are a special type of exoskeleton.)*
- Which are predators? *Dragonflies, damselflies, water scorpions, and predacious diving beetle; crawfish and water striders are too, but their food is not mentioned.* You may wish to mention that these predators are highly unlikely to hurt your students during the field trip, especially if they handle the macroinvertebrates as instructed.
- Which have wings? *Adult dragonflies and damselflies (Predacious diving beetles do too, but this is not shown.)*

Other Discussion Topics

Where in the pond do these organisms live? A good place to look for macroinvertebrates is *near plants*. Plants can provide shelter or a food source. You might also find them:

- skating on the surface of the water,
- swimming in the water column,
- floating in the water column,
- clinging to rocks, logs, and other debris, or
- walking or burrowing at the bottom of the pond.

If you have middle school or advanced students, you may wish to introduce a dichotomous key. Helpful websites include:

- http://islandwood.org/kids/stream_health/key/default.php and
- <http://people.virginia.edu/~sos-iwla/Stream-Study/Key/MacroKeyIntro.HTML>

