



# What Do Dragonflies Eat?

## Introduction

In the book *Eliza and the Dragonfly* by Susie Caldwell Reinhart, children are introduced to the life cycle of a dragonfly. In this activity, students complete a craft project to highlight what dragonflies eat during the three stages of life: egg, nymph, and adult.

## Materials Needed

- ◆ Card stock
- ◆ Scissors
- ◆ Metal paper clips
- ◆ Small magnets
- ◆ Glue gun, glue, or tape
- ◆ Long dowels or sticks for "fishing"

## Key Concepts

- ◆ Models can be used in explanations.
- ◆ Tools help scientists make better observations, measurements, and equipments for investigations.

For standards correlation please see our website.

## Procedure

1. The teacher makes cardstock stencils of three things dragonflies would eat as nymphs such as: mosquito larvae, tadpoles, and small fish; three stencils of things dragonflies would eat as adults: gnats, flies, mosquitos, and bees; and three stencils of things a dragonfly would never eat: any vegetable - they are carnivorous - and silly things such as ice cream or a hamburger.
2. Have children outline the stencils on colored paper and cut the shapes out.
3. Have students tape or glue a metal paperclip to the back side of each food, and then tape or glue magnets onto the sticks.
4. Children the fish for a magnet and turn it over to decide if it's something a dragonfly or a nymph might eat.

## Nature Connections

◆ A teacher can also make cardboard stencils of different stages of the dragonfly life cycle for kids to outline and cut out. Tape paperclips to back sides of the life stages cutouts. Glue magnets to sticks. Color a dragonfly habitat on a piece of paper. Kids can 'magically/magnetically' move their dragonfly life stages around the habitat without using their hands and tell the story of their life cycle (magnet under paper, paperclips on top of paper).

◆ Alternatively, have students create habitat collages from magazine clippings. Place the life cycle cutouts in the appropriate place on the collage and display in the classroom.

## Additional Resources

### Resources about dragonflies:

- ◆ **Fun Facts About Dragonflies**  
<http://www.dragonfly-site.com/dragonfly-facts.html>
- ◆ **What do dragonflies eat?**  
<http://www.dragonfly-site.com/what-do-dragonflies-eat.html>
- ◆ **Dragon Lifecycle Worksheet**  
<http://www.kidzone.ws/animals/dragonflylifecycle.htm>
- ◆ **To Catch a Dragonfly**  
<http://www.sciencenewsforkids.org/2006/12/to-catch-a-dragonfly-3/>



# Nymphs & Dragonflies Game

## Introduction

In the book *Eliza and the Dragonfly* by Susie Caldwell Reinhart, children are introduced to the life cycle of a dragonfly. This activity is a variation of the popular game of sharks and minnows. It can be played outside or in a gym and will help the students remember important facts about dragonflies and insect life cycles.

## Materials Needed

- ◆ Large open space such as a gym
- ◆ Painters tape
- ◆ A list of true/false questions related to dragonflies and their lifecycles

## Key Concepts

- ◆ Behavior is influenced by internal cues (hunger) and external cues (change in environment).
- ◆ Organisms can cause changes.

For standards correlation please see our website.

## Procedure

1. Divide the class into two groups. One team is the 'Nymphs'; the other team is the 'Dragonflies'.
2. Each team spreads out along a defined line facing the other team about 20 feet apart. There are two more lines (taped on the gym floor) about 30-40 feet behind each team.
3. The teacher makes a list of true and false statements relating to dragonflies. Throw in some very silly ones for fun and be sure they understand that dragonflies don't eat nymphs! One team is designated to chase the other team when the statement is false; the other team chases when the statement is true.
4. Players tagged before crossing the line behind them join the opposite team. To add a challenge, the dragonflies (fewer of them) can fly whereas the nymphs must "swim" and the children can come up with what flying and swimming looks like in a gym.
5. The game is ended when the teacher calls it, or when all players are on one team.

## Nature Connections

◆ For information to base the true/false questions on, see the back page of *Eliza and the Dragonfly* or the website *Fun Facts About Dragonflies* located at <http://www.dragonflysite.com/dragonfly-facts.html>

◆ In a variation of the game, have one side be a different stage of the dragonfly life-cycle and the other side be a food source. Students must "tag" the appropriate food source in order to remove them from the game. If an incorrect food source is tagged, the predator is removed from the game.

## Additional Resources

**More information on pond insects can be found on these websites:**

### **The Dragonfly Woman**

<http://thedragonflywoman.com/>

### **Pond Life**

<http://www.teachers.ash.org.au/jmresources/pond/life.html>

### **Identifying Aquatic Insects**

<http://www.penobscotswcd.org/publications/insects.pdf>

### **Water Insect Stages**

<http://www.microscopy-uk.org.uk/pond/insects.html>



# Make a Waterscope!

## Introduction

This is a fun way to discover what goes on under water without getting wet! You can observe dragonfly nymphs, tadpoles, salamanders in action in the shallows of a pond or creek, with this simple crafts project. And if getting to water is as likely as bringing your children to the moon, you can still use the waterscopes to observe and identify life cycles at home or in the classroom.

## Materials Needed

- ◆ Large plastic container (yogurt tub)
- ◆ Scissors
- ◆ Plastic wrap
- ◆ Large rubber band and/or duct tape

## Procedure

1. Cut off the tub's bottom with scissors. Stretch the plastic wrap over the tub's bottom and secure it in place with a rubber band and/or duct tape to keep it tight as a drum.
2. Insert the bottom (the plastic-wrapped end) about an inch into the water and look through the top. The water pressure pushes the plastic wrap into a concave magnifying lens and you can see tadpoles, minnows, dragonfly nymphs, salamanders and many small lively creatures in action!
3. Have children identify what they see. You could make a checklist with with images and have them check off what they find and with what adult species they belong. The children can practice being quiet and moving, slowly in order to see the most number of creatures (the key word is practice!)

## Key Concepts

- ◆ Models can be used in explanations.
- ◆ Tools help scientists make better observations, measurements, and equipments for investigations.

For standards correlation please see our website.

## Nature Connections

- ◆ If getting to a pond is unlikely, try this fun activity with a clear plastic bin filled with water. Copy images of ocean (hermit crab), pond (dragonfly nymph), and land creatures (caterpillar) on paper placed under the shallow bin. You can also do images of life cycle stages. Ask the children to move the scope over the objects and indentify what adult species they belong to and whether they belong to an ocean, a pond or on land.
- ◆ Find more images through the internet or old magazines and create a collage on the bottom of the bin. See how many water creatues students can locate and identify in one minute.

## Additional Resources

### Resources for guided outdoor exploration:

- ◆ **EEK! Environmental Education for Kids**  
<http://dnr.wi.gov/org/caer/ce/eeek/cool/h2scope.htm>
- ◆ **National Wildlife Federation**  
<http://www.nwf.org/get-outside.aspx>
- ◆ **Children & Nature Network**  
<http://www.childrenandnature.org>
- ◆ **Fish and Wildlife Service: Let's Go Outside**  
<http://www.fws.gov/letsgooutside/>
- ◆ **Kids Discover Nature**  
<http://www.kidsdiscovernature.com/>