



# Water Vision and Movements: Who am I?

## Suggested Curriculum links (Grade 4)

### Life Science: Habitats

- 302-2 describe how a variety of animals are able to meet their basic needs in their habitat
- 300-1 compare the external features and behavioural patterns of animals that help them thrive in different kinds of places

### Language Arts

- Students will be expected to use a range of strategies to develop effective writing and media products to enhance their clarity, precision, and effectiveness.

### Materials

- Animal cards
- Paper
- Pencils

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## Overview

*This is a fun activity because students do research (detective work), write and act. In pairs, students will research an animal, write a short adventure story and get classmates to guess what animal it is.*

## Objectives

- To research an animal and identify how it interacts with its habitat and what special features or behaviours it may have.

## Procedure

### 1. *Research a Canadian animal.*

Ask your students to choose one or two people they would like to work with on this project. Next the team should choose an animal from the information cards on the animals or another Canadian animal of their choice. Ask them to find out as much as they can about their chosen animal.

### 2. *Write a story.*

Ask the teams to write a short adventure story about the chosen animal without identifying it. They should stress how the animal moves about and how the animal sees its world around it. Canadian Wildlife brochures may be a good source of information for this project. Students may also want to use the library for more information.

### 3. *Present and act out the story.*

When the teams have finished their story, one member from the team should read it aloud to the class. The other team members should act out the animal in the story. The class must then guess what animal it is.

## Extensions

- Create a story book about different animals using the class' stories.



### At the Fluvarium

Join us for *Habitat... Habitat... Gotta Have a Habitat!* Students explore plant and animal life in our freshwater ponds and their physical adaptations and habitats and especially the life cycle of frogs and toads. This program makes a real 'splash' with the Grade Fours when they examine freshwater invertebrates up close through a 'pond sweep'.

### Resources

#### Websites

Find information about Canadian animals from the following websites:

*The Suncor Energy Fluvarium*

<http://www.fluvarium.ca>

Newfoundland Nature

<http://www.nlnature.com/>

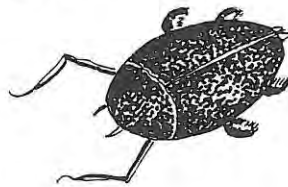
Canadian Geographic

<http://www.canadiangeographic.ca/kids/animal-facts/animals.asp?region=nfld>



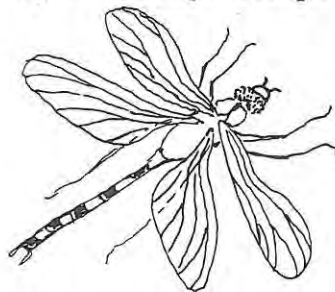
## Information Card #1

**Whirligig Beetles** look like bumper cars as they twist and turn with great speed on water surfaces. They use their middle and back legs for swimming; these flattened legs are fringed with hairs and act like paddles. Their eyes are divided into two parts: the top is used for seeing above water and the bottom for seeing below water.



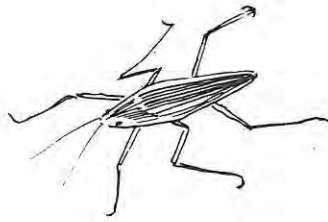
## Information Card #2

**Dragonflies** can fly as fast as thirty miles per hour. They have two pairs of wings which stroke alternately - the front pair goes up while the back pair goes down. This means dragonflies can dart upwards or downwards and hover in the air. They have huge compound eyes that can see in almost every direction.



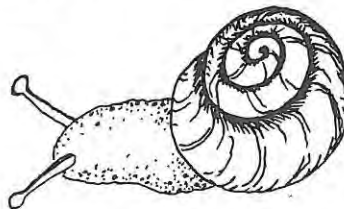
## Information Card #3

**Water striders** glide over the surface of the water with their four hind legs. They have glands that secrete oil at the tips of their feet. This enables them to move easily across the water surface without sinking in.



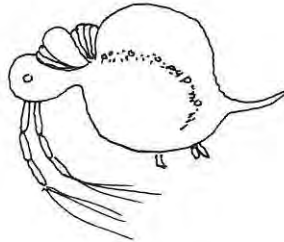
## Information Card #4

**Water snails** can actually move upside down on the ceiling of the water surface. They secrete gas bubbles which float them upwards. They then cling to the water ceiling with their large, fleshy foot. Their eyes are located at the tip of a pair of tentacles.



## Information Card #5

**Water fleas** are not really fleas, but tiny zooplankton related to crabs and shrimp. They move through water by using their antennae. Their five pairs of legs are located inside their shell - they use them like paddles to pull in food and water.



## Information Card #6

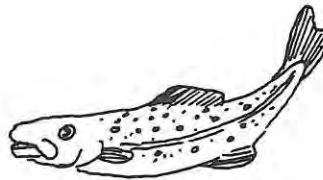
**Frogs** have protruding eyes on top of their heads. They appear to be snoozing on lily pads, but don't be fooled. They are waiting to snatch an insect as it flies by. Frogs' webbed feet make them good swimmers.





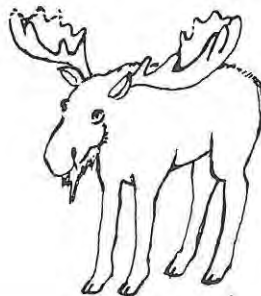
## Information Card #7

**Trout** (and most fishes) have eyes that bulge out. They see images clearly in front of them, but their side vision is less clear. They swim by moving their tails back and forth; they use their fins for balance and steering. Their lateral line helps them to sense objects that are beside them.



## Information Card #8

**Moose** have long, slim legs with spreading hooves. This enables them to walk on mushy terrain. Moose are excellent swimmers and divers - they have been known to dive 18 feet or more for plants to eat.



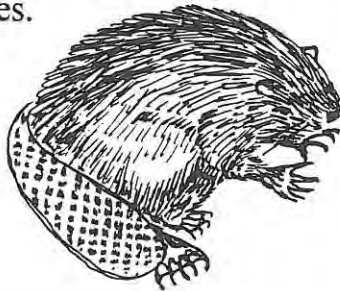
## Information Card #9

**Loons** are well-designed for swimming and diving. Their legs are placed far back on their bodies ; this makes them poor walkers, but superb swimmers. They have large, webbed feet and powerful leg muscles which also helps their swimming. Unlike other birds, loons have many solid bones; this increases their diving abilities.



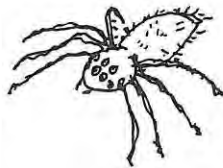
## Information Card #10

**Beavers** are strong, adept swimmers. They use their hind, webbed feet to propel themselves around; they also use their muscular tail to steer. Beavers can see as well in the water as out of it. They have a transparent membrane which draws over the eyes while diving; it is almost like wearing diving goggles.



## Information Card # 11

Spiders have from two to four pairs of simple eyes. While tarantulas are quite nearsighted and must rely on the many body hairs for sensing what goes on around them, true spiders like the water spider can have very good eyesight. Each pair of eyes sees a different view and each pair sees in a different size.



## Information Card # 12

Did you know some aquatic insects are jet propelled?

The Dragonfly nymph can rocket itself through the water by shooting water out of a cavity at the rear of its body.

