

# AQUATIC ECOSYSTEM

## TOOL KIT

# 4

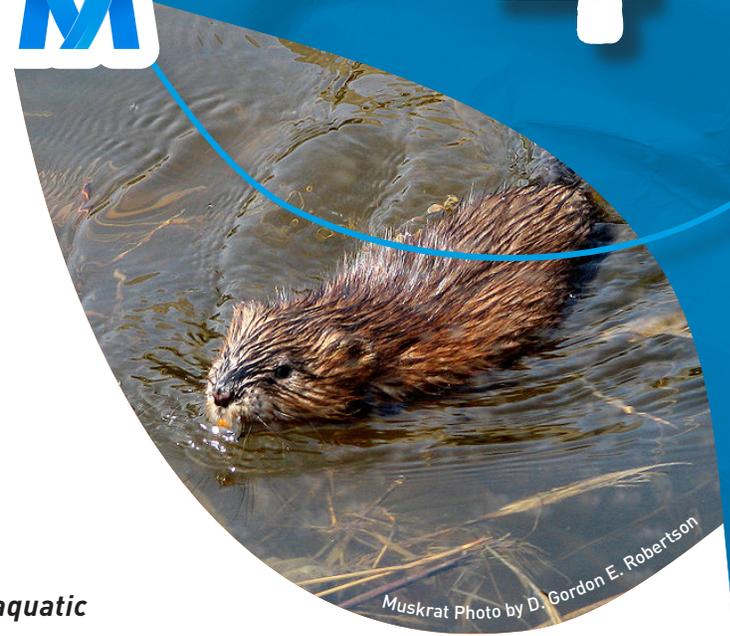
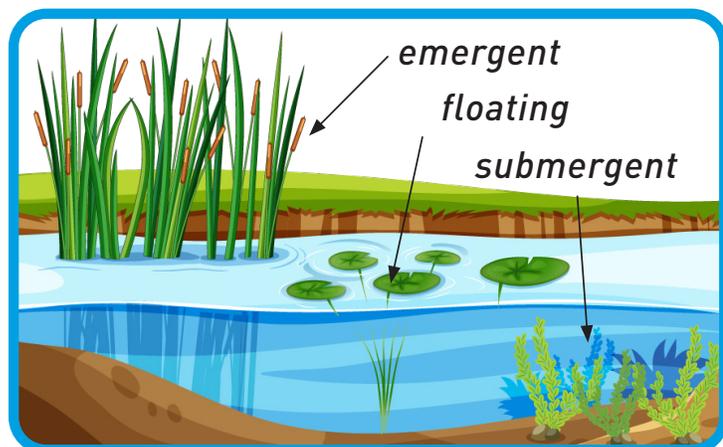
## AQUATIC PLANTS AND ANIMALS

### GUIDING QUESTIONS

- *What plants and animals live in aquatic and semi-aquatic ecosystems in Alberta?*
- *What adaptations do these plants and animals have?*
- *What is a food web?*

### INTRODUCTION

Aquatic ecosystems are some of the most diverse ecosystems on earth — meaning that they have thousands of different types of plants and animals! All of these animals have special physical and behavioral adaptations that help them survive in aquatic or semi-aquatic environments. A food web shows what types of plants and animals live in an ecosystem, and how energy from the sun transfers between them.



### MATERIALS FROM KIT

- **Labelled Species Photos** (4)
- **Biofacts** (4)
- **Physical Adaptation card** (4)
- **Behavioural Adaptation cards** (4)
- **Plant Identification Cards**
- **Dice** (2)
- **Wetland Riddle & Word Scramble Cards** (6)
- **Food Web Card**



# INSTRUCTIONS

## Part 1 | Aquatic Animals

1. Match the **Biofact**, **Physical Adaptation Card** and **Behavioural Adaptation card** to each **Labelled Species Photo**
2. Look around for animals or animal signs like tracks and scat.
3. How many different animals can you find?

## Part 2 | Aquatic Plants

1. Unscramble the words on the **Wetland Riddle Cards**
2. Use the **Pond Identification Cards** to identify the aquatic plants in your environment. Identify at least 1 emergent, 1 floating, and 1 submergent plant.

## Part 3 | Food Web Game

1. Take turns rolling both **Dice**
2. Add up the numbers on the dice
3. Complete the action below  
- use the **Food Web Card** if you need help
4. Repeat



### If you roll a ...

- 2** = Touch a producer.
- 3** = Make the sound of a consumer that eats flies.
- 4** = Name an omnivore you might find in this ecosystem.
- 5** = What do beavers eat? Are they herbivores, carnivores or omnivores?
- 6** = Act like a consumer you might find in this ecosystem.  
Can the rest of the group guess what you are?
- 7** = Name 3 things that a Canada Goose would eat.
- 8** = Name 3 things that would eat a Canada Goose.
- 9** = Name a decomposer.  
Have the rest of the group brainstorm 3 animals that would eat it.
- 10** = How do producers get their energy?
- 11** = Name one decomposer you can see.
- 12** = Name a producer that grows in the water.

## GRADE 4-6 EXPLORATION

- Draw a mini food web in your journal using examples of producers, consumers and decomposers that you see in this aquatic ecosystem.
- Choose a wetland plant or animal that was not part of the activity. Can you think of its physical and behavioural adaptations?

## GRADE 7+ EXPLORATION

- Why do you think that aquatic ecosystems support high biodiversity?
- Look closely at the plants you found; what adaptations do they have to survive in aquatic environments?

- Research each of the animals you explored during the matching activity (*mink, muskrat, beaver, snow goose*). Would your current environment provide a suitable habitat for any of these animals? Why or why not?