

# AQUATIC ECOSYSTEM

## TOOL KIT

# 6

## AQUATIC ECOSYSTEM FUNCTIONS

### GUIDING QUESTIONS

- *How do aquatic ecosystems work?*

### INTRODUCTION

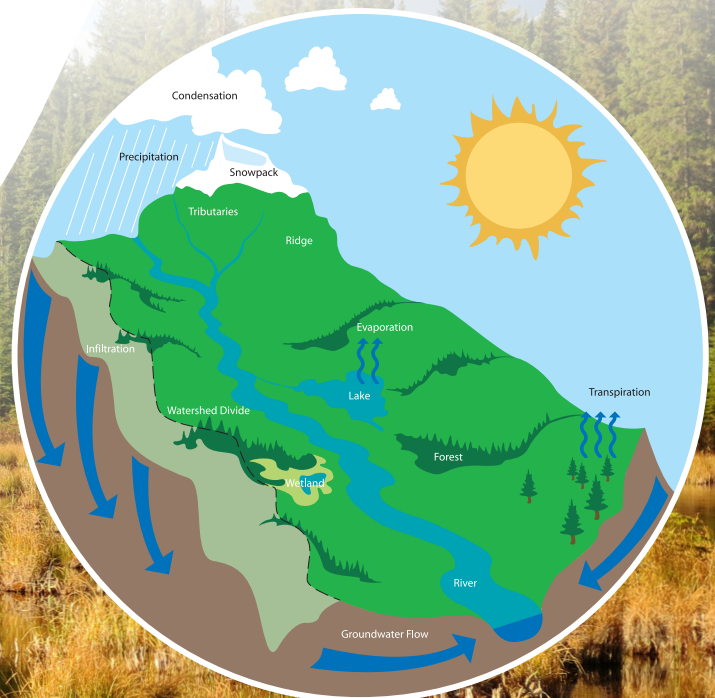
Water and healthy aquatic ecosystems are essential for life on earth.

Aquatic ecosystems provide a huge number of benefits for our environment such as creating habitat for plants and animals, filtering contaminants from the water, and moving and storing water to prevent floods and droughts.

Let's check out how aquatic ecosystems function by building our own mini aquatic ecosystem!

### MATERIALS FROM KIT

- **Peat Pucks**
- **Beaker**
- **Funnel**
- **Sponges**
- **Food Colouring**
- **Measuring Cup**



# INSTRUCTIONS

## Part 1 | Water Storage:

1. Place a single **Peat Puck** in the **Measuring Cup** and cover with water.
2. Set aside for 15 minutes. While you wait complete the **Part 2 - Water filtration activity**.
3. Observe and note the changes to the peat puck.

## Part 2 | Water Filtration:

1. Fill the **Measuring Cup** with water, and mix with a little bit of mud to make the water cloudy.
2. Assemble a water filter by placing the **Funnel** into the **Beaker**.
3. Place the **Sponges** inside **Funnel**.
4. Pour the muddy water through the filter. **Wait and observe**.
5. Empty the **Beaker**
6. Fill the **Measuring Cup** with water and mix in enough drops of **Food Colouring** to colour the water.
7. Pour the coloured water through the **Funnel**. **Wait and observe**.

### GRADE 4-6 EXPLORATION

- What happens to the peat puck when it is submerged in water?
- What happens to the muddy water vs the coloured water when you pass it through the filter?
- If the peat puck and filter represent wetlands, what role do wetlands play in a watershed?

### GRADE 7+ EXPLORATION

- How might different human uses of water affect water further downstream?
- Consider physical vs. chemical contaminants. What kind of contaminant does mud in your water represent? What kind of contaminant does food colouring represent?
- Can wetlands filter out each type of contaminant? How might they do so?