

# Environmental Education: Harbour and Watershed Protection

## Watershed Web of Life

### Background Information

A watershed is an area of land that drains rain, snow and ground water to a common point, such as a creek, wetland, lake or ocean. Watersheds can be different sizes and scales. Small watersheds can be part of larger watersheds.

For thousands of years, watersheds on Southern Vancouver Island have supported people and a huge diversity of wildlife that live on the land and in and around our creeks, wetlands and lakes.

A healthy watershed includes ample trees throughout to absorb and slow the rain, as well as vegetated areas around the banks of a lake or creek which acts as a filter for incoming water. This keeps it clean for the animals, insects, birds and fish that live in these habitats and ecosystems.

We all live in a watershed, whether natural, urban or rural. We are all affected by the rain that falls, the soil, the plants, trees, wildlife and the flow of water through out watersheds. What we do on land directly impacts the health of our local water bodies. When we protect our watersheds we keep our creeks, wetlands, lakes and harbours clean and healthy. These clean watersheds and water bodies provide good homes for many different plants and animals.

### Activity types in this lesson:

Warm-Up: Brainstorming

Videos: What is a watershed

Listening: Podcasts

Hands-On: Build a watershed web of life

Expand and Connect

### Warm-Up

Brainstorm all the different things that live in your watershed. You may do this verbally or write ideas down on a piece of paper. For inspiration, imagine walking through your favourite park, what might you see? What about in your yard or when you are camping? Or go outside and look around your yard or sit quietly and listen. Can you hear leaves rustling and birds singing?

### Videos

If watersheds is a new term or you would like a review, watch the videos below to learn more.

CRD Watershed Stewardship: [What is a watershed?](#) (2:50) & [How have we changed our watersheds?](#) (2:19)

[Watersheds](#) (5:41) by BC Tomorrow — simple video describing watersheds, watershed services and highlighting the nine watershed basins of British Columbia.

### Listening

Ear Snacks — *A musical podcast for kids about the world.*

- **Critters!** (23:10) [<https://radiopublic.com/ear-snacks-8QdP06/s1!3e3e7>]  
“What IS a CRITTER? Andrew & Polly ask some friends around the world about the different critters that live in their neighbourhoods.”

Wow in the World — *Hosts Mindy Thomas and Guy Raz guide curious kids and their grown-ups on a journey into the wonders of the world around them.*

- **Good Habitat Keeping** (26:23) [<https://www.npr.org/2020/02/14/806138091/good-habitat-keeping>]  
“Guy and Mindy go on a home tour of some of the strangest homes and habitats in the animal kingdom. And the one that stops them in their tracks was built with pee bubbles and butt breathing?! What creature would call such a place a home?”

## Hands-On

Create a watershed web of life or ecosystem.

Think back to your brainstorming or if you wrote your ideas down use your list. Find items in your house that could represent the living things in your watershed. Gather all the items together and create a web of life by forming connections and links between each living thing. There are many ways living things are connected in watersheds. For example, they could be connected by providing habitat or shelter, being food, providing nutrients or energy, or by being part of the same life cycle.

### **1. Gather items.**

Use whatever you can find! Cut out pictures from magazines, calendars or old greeting cards, use toys or decorations you might have. If you are having some trouble try using things made of different materials that could represent the original living thing (e.g., chopstick or wooden spoon could be a tree, herbs or lettuce could be plants, soft fur-like fabric could be an animal). Aim for at least 10 items.

Don't forget to include something to use to show connections and links between your living things. You could use string, yarn, sticks, skewers, or strips of paper.

### **2. Find space.**

Once you have your items gathered, find a space with enough room to spread out your items. You could use the living room, your bedroom floor or even go outside.

### **3. Form your connections.**

Look at your items. Place one end of the string (or whatever you are using) on the first item and then place the other end on a different item to show a connection. Remember things could be connected by providing habitat or shelter, by being prey, by being a predator, providing nutrients or energy, or by being part of the same life cycle.

### **4. Extensions**

What would happen if one of the items was removed?

- Try it! Remove one item. Remove any items that were connected since they are no longer there to provide the connection. Continue removing any items that are affected. What do you have left? What are some reasons a living thing might be removed from an ecosystem?

Add some non-living (or abiotic) items to your web. How would soil, sunlight, water and rocks fit in?

## Expand and Connect

Follow the life cycle of a salmon. Since salmon travel from the open ocean to small creeks, they pass through entire watersheds. How many things are connected to salmon throughout a watershed?

Use the regional [watershed maps](#) to find which watershed you live in. Where does all the water that lands in your yard and watershed meet the ocean?

Use the regional [watershed flow diagrams](#) to track how water flows in your watershed.

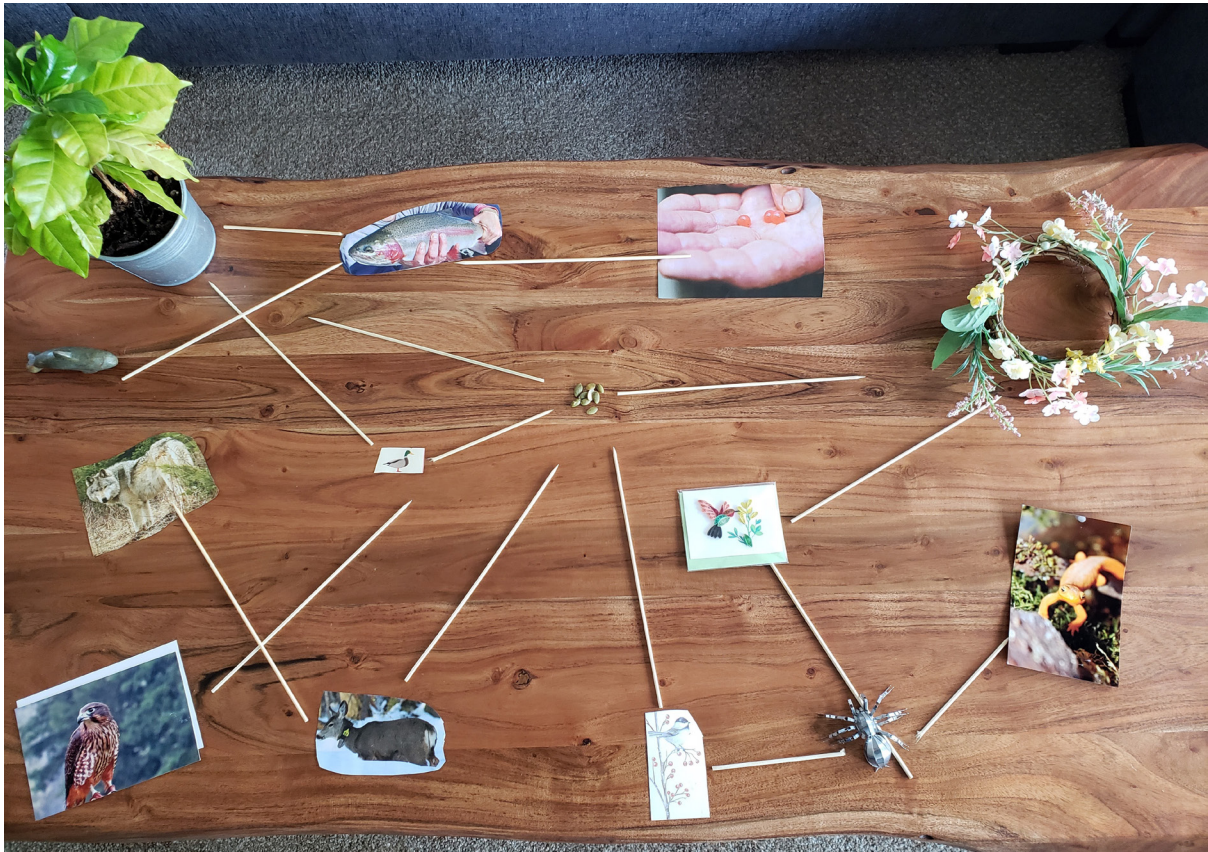
Go on a scavenger hunt (make your own based on the living things in your web of life or check out the Sierra Club's outdoor scavenger hunts for [Gr. K-2](#), [Gr. 3-5](#) ).

## Still Curious?

More information about capital region [Harbours](#); [Watersheds](#) or [Ecosystems](#)

If you have any questions about watersheds in the region, or are looking for ideas on how to connect this topic with other learning opportunities, contact us at [education@crd.bc.ca](mailto:education@crd.bc.ca).

## Watershed Web of Life - EXAMPLE



Items gathered:

- tree (house plant)
- duck, wolf, fish, deer, fish eggs (cut from magazine)
- falcon and newt (photographs)
- orca (toy)
- spider (toy)
- flowers (decorations)
- seeds (from cupboard)
- chickadee (cut from greeting card)
- hummingbird (card)
- wooden skewer to mark connections

This example was kept simple to better show how a web could be organized. There are many more potential connections for this web of life and your web will most likely have more connections. Below are some examples of the reasoning for a few of the connections.

**Tree and seeds:** trees grow from seeds, they are connected through their life cycle and reproduction.

**Tree and fish:** many fish (especially young salmon) rely on the shade from trees, on river or creek banks, to keep temperatures just right and to use as places to hide from birds or other predators.

**Chickadee and spider:** chickadees eat spiders, insects and seeds.

**Orca and fish:** orcas eat fish.