

Welcomed by the Water

Background Information on the Fraser River:

The Fraser River was named after Simon Fraser (1776-1862) who explored the river in 1808 on behalf of the North West Company in search of a navigable route for fur trading. Simon Fraser believed that he was traveling on the Columbia River to its ocean outlet. It was another explorer, David Thompson, who later named the river after Simon Fraser.

First Nations people had lived along the Fraser River for thousands of years before Simon Fraser's arrival. Some of the archaeologists estimate up to 9000 years before. (A site under the Alex Fraser Bridge has been dated back that far). While we can't know an exact arrival date, it would have been after the last ice age, 10-14 thousand years ago. It is worth noting, though, that within the oral traditions of First Nations groups, there are no stories of them arriving in what we now call Canada. For them, they have always been here.

The Fraser River starts as a trickle at Mount Robson (Headwaters) and ends in the Strait of Georgia in the Pacific Ocean. There are many tributaries that add water to the Fraser, including the Thompson River (22% of the total water flow).

The Fraser River is estimated to be 1,375 kilometers long. If it was stretched out across Canada, it would span the distance between Vancouver and Regina, Saskatchewan. The Fraser River is longest river in BC, and the fifth largest river in Canada. It is less than 15,000 years old.

The characteristics and landscapes of the Fraser River change from the beginning of its journey to its end. As you exit the headwaters on Mount Robson and enter the Upper Basin region, the river's sediment load increases creating more turbulent waters with the water appearing grey or brown in colour. The river then passes through drier lands with low vegetation as a result of little rainfall and hot temperatures. In the Fraser Canyon, the river is squeezed between the Coast and the Cascade mountain ranges, increasing the speed and creating many impressive rapids.

The point at which the fresh water of the Fraser River meets the salty water of the Pacific Ocean is called the estuary, (also sometimes called "between land" by the First Nations people because as the tides ebb and flow, the estuary mudflats alternate between being exposed and submerged). Because estuaries have access to both riparian (river) and marine nutrients, they are home to an incredible diversity of life.

A habitat can be defined as a place where an organism can get food, water and shelter. The major habitat types along the Fraser River include: brackish and freshwater marshes, salt marshes, tidal flats, sloughs, and flood-plain forests among others.

The Fraser River watershed is also home to 60% of BC's population, approximately 2.7 million people. A watershed is an area of land that drains all the water into one main river. The Fraser River watershed is also called a drainage basin, since it collects so much water and drains such a large area (25% of BC's area).

Program Overview:

Prior to European colonization, Indigenous peoples got what they needed from the land and water around them. Indigenous people have relied on salmon since the fish became abundant in the Fraser River about 5000-6000 years ago. They used native plants for food, medicine, building materials and more. This program explores the connection between Indigenous people, salmon, and the broader Fraser River Basin. Students experience the movement of salmon, storytelling and oral histories, and the many uses of native plants through an Indigenous perspective.

Program Objectives

- To introduce the importance of traditions to a culture.
- To understand that the cultural importance of indigenous communities does not depend on written history, but instead is recorded in the oral traditions passed through generations.
- Understand that the interconnectedness of people, land, plants, and animals requires dependence, nurturing, respect and reciprocity.
- To explore the salmon lifecycle through multiple perspectives.
- To learn about some of the medicinal and edible native plants of BC.
- To understand that land and nature have been and continue to be a source of life-sustaining resources.

Helpful Vocabulary

Elder: a leader or senior person, often who teaches things.

Spawning: laying eggs.

Migration: movement from one area to another, usually seasonal.

Anadromous: a fish that can go from fresh water to salt water.

Tradition: passing on customs or beliefs from one generation to the next.

Tuber: a root vegetable.

Weed: a plant that is invasive and takes over, taking the water and nutrients from other plants to thrive.

In- class activities:

Here are some ideas to help prepare your class for the program, and to continue the learning back in the classroom.

Pre-visit:

1. In this program, we'll be talking about native plants and some of their uses. To set the context for this, explore with your class the difference between native and invasive species. You can easily explain to your class what a native species is: it's a species that normally lives in an area. You can use the following video to help explore invasive species, what they are, and the impact they can have.
 - a. <https://www.youtube.com/watch?v=W4Ds8aFh8hM>
2. Introduce your students to an Indigenous perspective on harvesting and using native plants as food and medicine by watching this video. In it, Barb Whyte, a member of the K'omoks First Nation on Vancouver Island, and June Johnson from Cape Mudge on Quadra Island, talk about holistic nature of their knowledge of medicinal plants.
 - a. https://www.youtube.com/watch?time_continue=204&v=RANcnlOtR1o&feature=emb_title
3. Introduce your students to an Indigenous perspective of salmon, and their lifecycle, with this video filmed in BC.
 - a. <https://www.youtube.com/watch?v=ST5Wp5RsBb4>

Post visit:

1. In the program we touched on the interconnectedness of the landscape in the salmon lifecycle game. To learn more about the ways that salmon, the forest, and all its residents support each other, watch the video below. Help students solidify the knowledge presented in the video by drawing food web diagrams, showing the connection between salmon and trees (their diagrams should end up circular).
 - a. <https://www.youtube.com/watch?v=g00fAKG31lw>
2. Re-enact the salmon life cycle in your classroom! Using the printable below, make salmon puppets. Have students color in their salmon, cut it out leaving the two halves connected, fold it in half, and glue or tape their salmon to a stick. You can use their puppets as is, and have everyone act out the salmon lifecycle. Or, you can go a step further and create a river and ocean out of fabric or paper and markers for your salmon to swim through. Add as many details as you want, like a waterfall, a gravel redd, a bear, a sturgeon, etc.
 - a. <http://www3.sd71.bc.ca/School/abed/resources/teacher/Documents/Split%20Salmon%20Design%20by%20Butch%20Dick.pdf>
3. Continue learning about BC's native plants by creating a page from a nature journal. Most nature journals consist of a mixture of drawings, block text and small notes. Have each student pick a different native BC plant from the list below, and create a nature journal entry about it. They should draw the plant from a couple different perspectives, highlighting key characteristics with both their drawings and text, and they should add some notes about the plant somewhere on the page. See below for some examples of nature journal pages.

