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ACTIVITY: Ethnobotany – a study of local plants and their uses

CHALLENGE

Imagine that you are living here hundreds of years ago... Imagine there are no stores, no refrigerators, no stoves or microwaves. Everything you need for food, tools and medicine needs to be gathered from nature.

Do you think you could survive? Discover how many different plants you can identify and find.

MATERIALS

- Ethnobotany Scavenger Hunt List and Photos of plants (see pages 3 & 4 of this activity)
- A journal or piece of paper
- A clipboard
- A pen, pencil or marker

EXPLORE

Did you know that many of our plant species have been introduced (brought here from other places)? In this activity, you will be looking for and learning about 8 native, or local, plants. Native plants are plants that grow in their environment naturally. You will try to find Salmonberry, Oregon Grape, Big Leaf Maple, Skunk Cabbage, Western Red Cedar, Grand Fir, Salal and Sword Fern.

Take a look at the photos of these plants on page 3 and try to think of an area in nearby nature where you will find most of the plants on the sheet. Maybe you recognize some of them?

MAKE IT HAPPEN

First Nations people have lived on this land, and cared for the land, for a long, long, long time. They not only survived, but lived well, because they had learned the uses of plants for food, medicines and tools, and passed the knowledge down from generation to generation. Some of this knowledge has been shared, because knowing the value of what's around us will help us want to protect it.

Today, you are going on a walk to learn about resources in nature. Try to find at least one plant for each of these 3 uses: medicine, food and tools.

As you walk you'll use all your senses – smell (take a deep breath in and slowly exhale), sight (look around and above), sound (show how you can make “deer ears” by cupping hands and rotating them to back or facing front – good way to sense danger), touch (gentle, rub between thumb and first finger) and taste (if you are with an adult who can tell you what berries are okay to eat).

Use page 3 with plant photographs to find the plants you are looking for in nearby nature. Then look at page 4 to learn more about the plant names and their uses. Check them off as you find them and make a note about where you found them.

Resource: Adapted from <https://www.hctfeducation.ca/wp->

SHARE

Do your best to use your observation skills to answer these questions. You can research questions too. You can choose to focus your answers on one plant or on all of the 8 plants that you find.

1. How does this plant protect itself from being eaten by insects or herbivores (deer, rabbits)? Does it have thorns or extra-tough bark?
2. Is it rare or abundant (are there many of them)?
3. How does this plant reproduce?

Interesting fact: many of their seeds will get eaten or will not survive to start a new plant so they produce a LOT of offspring and hope one or two will start a new generation.

4. What animals might rely on this plant (birds, rodents, bears, salmon)?
5. What kind of habitat does this plant like – wet and shady or dry and sunny? How do you know? What is here that is making this a good habitat for this plant? (*for example*: shade from taller trees, water from a stream)

Challenge Question: How does human activity impact plant health and habitat (*Development may reduce wild areas and replace native plants with introduced or invasive species that don't have the same ethnobotanical value*)?

REFLECT

Journal Reflection – What did you notice? What do you wonder? Did anything surprise you?

EXTEND & ADAPT

Extensions:

1. Make found-item collages or natural paint from collected flowers, leaves, soil, and berries.
2. Draw a map of your journey and where you found valuable resources.

Adaptations:

For an easier version of a Plant Scavenger Hunt, try this:

Evidence of Biodiversity (Activity taken from Get Outdoors!)

Find all these clues, then draw a few of your choice:

- ❖ Find three different sized leaves from the same plant.
- ❖ Find at least three different kinds of leaves.
- ❖ Find at least three different kinds of plant “skins” or surfaces.
- ❖ Find a plant that has three different colours.
- ❖ Find at least three different kinds of seeds.
- ❖ Find at least three leaves with different textures.
- ❖ Find at least five different kinds of plants.
- ❖ Find at least three different kinds of plants growing under a tree.
- ❖ Find at least three different holes made by animals.
- ❖ Find three different signs of an animal having eaten something.
- ❖ Find three different consumers (animals) or evidence of them.
- ❖ Find three different kinds of decomposers (e.g., slugs, snails, bacteria, fungi, earthworms, insects).
- ❖ Find at least three plants with different odours.
- ❖ Find at least three different kinds of leaf stalks.
- ❖ Find at least three different insects.

Resource: Adapted from <https://www.hctfeducation.ca/wp->

Photographs of Plants and List:



*Taken from: Ethnobotany Scavenger Hunt Lesson by Alex King
F.J. Ney Elementary (Walley Creek)*

<p style="text-align: center;">Salmonberry *****</p> <p>The berries of this plant are good to eat, if you can get to them before the birds do! The streamside bushes look spindly and thorn-covered in winter, but are one of the first to get new leaves and bright pink flowers in the spring which attract hummingbirds.</p>	<p style="text-align: center;">Big Leaf Maple *****</p> <p>The seeds of this tree act like helicopters for wider dispersal. Sometimes many tree trunks grow close together in moist woods and clearings. The wood of this plant is great for carving. It can be used to make bowls, plates, spoons, and paddles.</p>
FOOD	TOOLS
<p style="text-align: center;">Oregon Grape *****</p> <p>The roots and berries of this plant contain a strong chemical called an alkaloid that can be used for stomach problems and sore throats. You would never take this medicine without an elder telling you to. The roots also have a vibrant yellow colour that can be used for dyeing baskets or wool.</p>	<p style="text-align: center;">Skunk Cabbage <small>(aka Swamp Larkspur)</small> *****</p> <p>The pungent smell of the skunk cabbage flower tells you it's pollinated by flies. The flowers are eaten by bears in the spring to get their digestive systems moving after hibernation. Leaves were used as a layer in earth ovens, or to wrap food in.</p>
MEDICINE	FOOD
<p style="text-align: center;">Western Red Cedar *****</p> <p>The "Tree of Life" is useful for housing materials, hats, cloaks, boxes, baskets, mats, canoes, fish hooks and drying racks. Its natural oils keep it from rotting when wet. The boughs drape downwards gracefully ending in flat, waxy needles.</p>	<p style="text-align: center;">Grand Fir *****</p> <p>Needles spread horizontally and are rich in vitamin C. Young needles are distinctly bright green and were boiled to make a medicinal tea for colds. The pungent, sweet scent of the boughs and pitch were valued as air fresheners, floor coverings, bedding and incense.</p>
TOOLS	MEDICINE
<p style="text-align: center;">Salal *****</p> <p>Salal is the dominant understory shrub of coastal B.C. Salal berries were the most important traditional fruit of many Northwest Coast peoples. They were eaten fresh, dried into cakes, and used to sweeten other foods. You can make a tiny drinking cup by shaping a salal leaf into a cone.</p>	<p style="text-align: center;">Sword Fern *****</p> <p>The large sword fern rhizomes (underground stems) were steamed or roasted and eaten by many Northwest Coast peoples. The fronds were used to separate different types of food in steaming pits and were used as placemats or under bedding. Each frond may produce millions of spores when mature in late summer.</p>
FOOD	FOOD / TOOLS