



Ethnobotany Scavenger Hunt

LESSON

By Alex King

F.J. Ney Elementary (Walley Creek)

GRADE(S): K - 4

TIME: 30-45 minutes

MATERIALS:

- Clipboards
- Erasable crayons or whiteboard markers
- Scavenger hunt sheets, back to back (this way the descriptions match the pictures) in page protectors, enough for students to work in pairs.

Learning Objectives:

Lesson Outcome
What will students learn?
<ul style="list-style-type: none">▪ Students will be able to identify several local plants and describe their characteristics, typical habitat, and/or ethnobotanical features.▪ Students will explain how the local environment can provide for human needs (food, tools, and medicines) and wants (materials for creative expression).
Sources of Evidence
What product or action will show what students have learned?
<ul style="list-style-type: none">▪ Journal, Science Notebook page, and/or map of scavenger hunt area.
Criteria
What will you look for in this evidence?
<ul style="list-style-type: none">▪ Accurate representation of plant (including stem/trunk, leaves/needles, and flowers/cones/spores (fern) and description of habitat.▪ Give examples of wild products that are harvested and used today to meet our needs and wants.

Before You Start:

It's a good idea to plan your route beforehand so you know where to find the things on your sheet, and also where potential pitfalls and obstacles are. There is a big skunk cabbage grove by the footbridge nearest the intermediate playground. There is one grand fir tree beside the creek if you walk down the paved path away from the school, and some clumps of fern there as well. The other items are found across Williamson, on the paved path that leads south.

If you notice litter, bring a bag on the scavenger hunt and model picking it up to dispose of properly at the school. You could remind students that garbage can be harmful to animals and washes down the creek and out the ocean. Notice what you see on your pre-trip walk, and be open to what you see when you take your students. This will guide the follow-up activities. Make a mental map of the route you'll take so you'll find most of the plants on the sheet.

Process:

Before leaving the class, prepare students for the experience by reminding them of rules to stay together, gather around teacher when signaled, and listen when one person is speaking. Bring a first aid kit and a bag or basket if you decide to collect a variety of leaves for drawings/rubbings when you return to the classroom.

It's best to send students for a quick run when you first get outside to burn off steam, then gather everyone together to set the tone for the activity.

"Imagine we lived here before contact, 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?"

"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."

"Imagine that today we're going on a walk to gather resources. We've never been this far north before, and we're scouting out new places to harvest materials from nature. We want to find at least one plant for each for these three uses: medicine, food, and tools. If we find more than that we'll know this would be a good place to return to."

"As we walk we'll use all our 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 we're lucky!)" *Only eat berries you know. Huckleberries, salmonberries, blackberries and salal berries are delicious and safe, but never eat berries if you're unsure.

Hand out one scavenger hunt sheet (on clipboard) and one erasable crayon (or whiteboard marker) to each pair of students. Instructions - when one of the items is found students will circle it and we'll flip the sheet over to read about it. Remind students to stay together as a group, and follow teacher's lead; never going ahead. As each item is found, give all students a chance to look at it, smell it and feel the leaves/needles. Here are some questions to guide their thinking:

Questions:

- How does this plant protect itself from being eaten by insects or herbivores (deer, rabbits)? (Does it have thorns or extra-tough bark?)
- Is it rare or abundant?
- How does it reproduce? How do plants make up for the fact that many of their seeds will get eaten or otherwise not survive to start a new plant? (Answer – they produce a LOT of offspring and hope one or two will start a new generation.)
- What animals might rely on this plant (birds, rodents, bears, salmon)?
- How does human activity impact its distribution? (Development may reduce wild area and replace native plants with ornamentals that don't have the same ethnobotanical value.)
- What kind of habitat does this plant like – wet and shady or dry and sunny? How do you know? What is here that makes this a good habitat for this plant? (Answer – shade from taller trees, water from stream.)

Follow-up Activity Suggestions:

- **Journal Reflection** – What did you see, smell and hear? What did you learn? What was surprising?
WWF Canada has a printable "Wonder Book" on their website schools.wwf.ca/Lessons/Grade/K. **Accompanying text** - *The Listening Walk* by Paul Showers.
- **Science Notebook page** – Choose one plant to draw. Pay careful attention to the texture and shape of the leaves. (See sierraclub.bc.ca/wp-content/uploads/2015/03/Going-Wild_Wild-products_Educators-guide_4-7.pdf [pg 31] for description of this activity.) **Accompanying text** – *We're Going on a Leaf Hunt* by Steve Metzger.
- **Draw a map** of your journey and where you found valuable resources. (See sierraclub.bc.ca/wp-content/uploads/2015/03/Going-Wild_Wild-products_Educators-guide_4-7.pdf [pg 37] for description of this activity.) **Accompanying text** – *Mattland* by Hazel Hutchins/Gail Herbert.
- **Make found-item collages or natural paint** from collected flowers, leaves, soil, and berries. (**Accompanying text** – *A Day With No Crayons* by Elizabeth Rusch, see www.youtube.com/watch?v=OTWwWCbpf8k&feature=youtu.be for a "Nature Faces" activity idea.)
- **Aboriginal guest speaker** – connect with FN liaison to arrange for a local Snuneymuxw person to visit the class and describe the history of this area, and traditional practices of harvesting and preparing local natural materials for use as food, tools, and medicines.



BC (New) Curriculum Connections

Grade	Social Studies	Science
K	<ul style="list-style-type: none"> ▪ Competency: Explain the significance of personal or local events, objects, people and places. ▪ Content: Needs and wants of individuals and families. 	<ul style="list-style-type: none"> ▪ Competency: Demonstrate curiosity and a sense of wonder about the natural world. Make exploratory observations using their senses. Experience and interpret the local environment. Express and reflect on personal experiences of place. ▪ Content: First People's use of plants and animals.
1	<ul style="list-style-type: none"> ▪ Competency: Explain the significance of personal or local events, objects, people and places. ▪ Content: Relationships between a community and its environment. 	<ul style="list-style-type: none"> ▪ Competency: Demonstrate curiosity and a sense of wonder about the natural world. Make and record observations. Experience and interpret the local environment. Communicate observations and ideas using oral or written language, drawing, or role-play. Express and reflect on personal experiences of place. ▪ Content: Structural features of living things in the environment.
2	<ul style="list-style-type: none"> ▪ Competency: Explain why people, events, or places are significant to various individuals and groups. ▪ Content: How people's needs and wants are met in communities. Relationships between people and the environment in different communities. 	<ul style="list-style-type: none"> ▪ Competency: Demonstrate curiosity and a sense of wonder about the natural world. Make and record observations. Experience and interpret the local environment. Communicate observations and ideas using oral or written language, drawing, or role-play. Express and reflect on personal experiences of place. ▪ Content: Aboriginal knowledge of life cycles.
3	<ul style="list-style-type: none"> ▪ Competency: Explain why people, events, or places are significant to various individuals and groups. ▪ Content: Relationship between humans and their environment. Cultural characteristics and ways of life of local First Peoples. 	<ul style="list-style-type: none"> ▪ Competency: Demonstrate curiosity about the natural world. Make observations about living and non-living things in the local environment. Experience and interpret the local environment. Contribute to care for self, others, school and neighborhood through personal and collaborative approaches. Express and reflect on personal or shared experience of place. ▪ Content: Biodiversity in the local environment. Aboriginal knowledge of ecosystems.
4		<ul style="list-style-type: none"> ▪ Competency: (same as grade 3) ▪ Content: The ways organisms in ecosystems sense and respond to their environment. Features of biomes. (*Especially if comparing rocky, dry open ecosystem to damp, lush, riparian area at FJ Ney.)





Salmonberry



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.

FOOD

Big Leaf Maple



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.

TOOLS

Oregon Grape



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.

MEDICINE

Skunk Cabbage

(aka Swamp Lantern)



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.

FOOD

Western Red Cedar



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.

TOOLS

Grand Fir



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.

MEDICINE

Salal



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.

FOOD

Sword Fern



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.

FOOD / TOOLS