

Title of Lesson/Unit: Name That Tree!

Primary Intermediate Secondary

(Adapted from FORED BC Eco-Fun, prepared by teachers who led school tours at Green Timbers Forest in Surrey and at Evans Lake Forest Summer Camp but activities are geared to any local forest setting near a school.)

Big Ideas: [Plants and animals have observable features.](#) [Science K-9](#)

Curricular Competencies: - Students are expected to be able to do the following:

- Make exploratory observations using their senses
- Experience and interpret the local environment
- Ask questions about familiar objects and events
- Express and reflect on personal experiences of place

Concepts & Content - Students are expected to know the following:

- [local First Peoples uses](#) of plants and animals
- [classification](#) of living and non-living things
- [names](#) of local plants and animals
- basic needs of plants and animals

Objectives for This Activity:

- Students will be able to identify at least two deciduous and two coniferous trees in the forest.
- Students will be able to identify at least four other plants or shrubs growing in the same habitat as these trees.
- Students will be able to speculate about the habitat's ability to meet the needs of these trees and plants.
- Students will be able to speculate about the trees' ability to contribute to the surrounding habitat. What kinds of creatures, insects, birds might call those trees home?
- Students will be able to share their observations about living things in their local environment to help others learn about their “place”



Pre-Class Preparation - The teacher will need to make the following preparations prior to class:

- Consider inviting additional helpers/parent volunteers to come along on this outdoor education experience. (In the event an outdoor experience isn't possible, maybe we could have students play a guessing game, in that teacher holds up a picture of a pine cone or some needles and children can try to guess what kind of tree that might be? (after spending some time looking at common trees of their area).
- Have access to the [Tree ID](#) Book (B.C. Ministry of Forests, Lands, Natural Resource Operations)

- B.C. [Tree Posters](#)/plant ID guides such as the online and mobile app from: <http://leafsnap.com/species/> and [iNaturalist](#).
- Some [Native Plant](#) materials from Royal B.C. Museum and [Camosun College](#) and [School District 41](#) and [CBC](#) (with video). Although the CBC story is from Saskatchewan, some of the Indigenous medicinal plants are also in B.C., like Trembling Aspen. FORED BC's website has an extensive archive of Indigenous Traditional Knowledge and Medicine use of plants, trees and other materials submitted by Indigenous youth throughout B.C. as part of a [youth artwork contest](#). More info on the traditional use of plants here in [Canadian Encyclopedia](#) and at [Royal BC Museum Food Plants of Coastal First Peoples](#)

- Sample foliage from at least four trees in your area (place each tree sample in a plastic ziplock bag that's labelled with the tree's name). Or simply place a colour photo printout in the bag and see if students can find that growing in their local environment.
- Sample foliage from at least four other plants or shrubs growing in the vicinity of these trees (prepare ziplock bags for these too).
- Ensure students have a drawing pen or pencil with paper for tracing/sketching back in the classroom with any samples they've obtained. [Leaf rubbings](#) instructions.
- Record any other wildlife, animals, bugs they saw. Discuss how might they all depend on each other?



Materials & Technologies - Students will use the following materials, tools, equipment:

- local, forested area (Park or Schoolyard) and weather or seasonal dependent, with examples of local deciduous and coniferous trees for students to identify. This area should also feature the plants chosen as samples.
- Sketch/draw or trace a leaf, needle, onto drawing paper. Be prepared to describe your findings.

LESSON PLAN

- Ask students to suggest what these are: food, water, shelter, space.
- What needs do trees and plants have?
-water, mineral, and nutrients from soil, sun, space and protection from elements, carbon dioxide from air, be able to reproduce
- What needs do the animals, bugs, birds have and how do trees provide that?
(Food/shelter, bugs eat leaves, birds eat the bugs and use trees for nests and, as with [Maple trees](#), bees provide pollen to help plants and trees grow.)

- Focus on a nearby tree. Ask students to decide if the tree is coniferous (cone-bearing, usually with needles) or deciduous (broad-leaved), and explain why they think this is so. Generally, most trees fall into one of these two main categories. Look closely at the trunk and leaves. Do you see any evidence of other inhabitants?
- Ask students to suggest how they might go about obtaining more information about a tree they were interested in. What if they wanted to know where it lived, or what its scientific or common name is, or how tall it is likely to grow etc.? Where would they look for the info? (in a tree identification guide or tree key, trusted online resources).
- Why is it called a tree key? *Because it 'unlocks' the name or identity of the tree.*
- There are many different kinds of tree keys and ID guides. Tell students they will get a chance to look at some, but first they will try a more active approach to identifying trees. Have students pair up. Each pair receives a plastic bag containing a tree sample.
- Have students search the immediate area to locate a tree displaying the same foliage as their sample bag. When they've found a match, ask the teacher and/or accompanying adult over to verify it. Then they may exchange their sample-bag with another pair of students. Tell students they must work their way through all the sample bags.
- Give students 10-15 minutes to work with the samples. Then call them back together to discuss the trees they observed. Collect the samples and ask students to describe the trees. What do they remember about their foliage, cones or seeds, bark, branches etc.?
- Distribute ID guides/Keys (printouts from websites provided). Help students look up the trees they have been learning. Have them read and share the information they find.
- Repeat the matching activity with the sample plants. This time tell students to pay attention to where these plants are growing. Which trees are nearby?
- After giving the students some time to work with the samples, call them back together again. This time ask each pair to tell where they found their example of one of the plants. Which trees were nearby? Tell students that trees, plants and animals living close together often benefit from each other and have similar habitat needs. Ask students to suggest what some of these benefits might be.
- As a wrap-up, have the students focus on one or two nearby trees. Have them look



for evidence of at least three organisms which use the trees as habitats. Also have students look for evidence which suggests that the trees are meeting their needs from the habitat.

- After a few minutes of exploration, have the students gather together and briefly visit each tree. Share and discuss the evidence found. Have students describe the 'web of life' they see around them.
- Again, help the students locate their plants in the ID guide or keys. Have them read and share the information they find. They may have found other plants or trees to investigate.
- Using their samples obtained from the forest floor or from a living tree, they can make their leaf tracings or sketches. [Leaf rubbings](#) instructions.



Resources & References:

[B.C. Trees species, photos and info](#)

<https://www.arborcare.com/blog/identify-common-trees-in-alberta-and-british-columbia>

<https://www.mission.ca/municipal-hall/departments/forestry/education/> (some great tree ID activities, word search puzzles etc.)

<https://vancouverislandbigtrees.blogspot.com/p/tree-identification.html>

<https://learning.royalbcmuseum.bc.ca/pathways/native-plants-south-coast/> <https://www.inaturalist.org/home>

Tree/plant ID apps online: Take a picture and this handy app will identify the tree/plant in Canada, developed by US universities and the Smithsonian. You can also search up Canadian trees/plants online: <http://leafsnap.com/species/>

LeafSnap App on Google:

<https://play.google.com/store/apps/details?id=plant.identification.snap&hl=en&gl=US>

LeafSnap App for iPhone/iPad: <http://leafsnap.com/>

[B.C. Agriculture in the Classroom Foundation Bee Activity](#)

Assessment/Evaluation

- Compare observations with those of others
- Make simple inferences based on their results and prior knowledge
- Sort and classify data

Adaptations/Modifications

- Robyn Ross, M. Ed, Special Needs, and a FORED volunteer, prepared the attached [Classroom Adaptations](#) plan to help teachers with diverse student needs.

Extensions/Possible Cross-Curricular Connections

- Physical and Health Education: [Identify and describe practices that promote mental well-being](#). Explain how participation in [outdoor activities](#) supports connections with the community and environment. Explore how a walk in the forest / park (with your parent/trusted adult/guardian/teacher) might contribute to good mental health as well as daily physical activity? (The Japanese call this "[forest bathing](#)"!)
- B.C. [Indigenous culture](#) relies heavily on a close connection with the forest for wellbeing. Connect with local First Peoples and invite an elder or other member to share their stories of your local community and its history with students.
- Celebrate what students have learned by sharing their drawings and tree identification in an Art display for others to see.

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