



Teacher's Corner Lesson Plans

*Helping Teachers and Students Make the Most of
their Outdoor Classroom*

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Adopt-A-Tree^{*†}

Drew Monkman

Grade level: Grade 3, 4, and 6.

Provincial curriculum links: Ontario.

Subject: Science and Technology.

Keywords: Shrub, tree, grow, measure, ecology, seasons.

Description

The students will learn the parts of a tree, seasonal changes, how to identify trees and certain ecological functions.

Curriculum Framework

Grade 3 (Plants), Grade 4 (Habitats and Communities), Grade 6 (Diversity of Living Things)

Specific Lesson Goals

Grade 3

- describe, using their observations, the effects of the seasons on plants
- identify the major parts of the plants
- record relevant observations, findings and measurements
- identify some functions of different plants

Grade 4

- describe structural adaptations of plants that demonstrate a response to their environment
- recognize that plants live in specific habitats because they are dependent on those habitats

^{*}Source of Lesson Plan: Based on an activity from Project Learning Tree (www.plt.org)

[†]Submitted by: Drew Monkman <dmonkman@cogeco.ca>

Grade 6

- identify various kinds of plants and animals
- compile data gathered through observations in order to record and present results

Preparation

Preparation time: 30 min.

Length of lesson: The first outing can be done in about 45 minutes. Subsequent visits will be much shorter, since the student is only recording changes in the tree.

Resources required:

- Observations sheet (see below)
- Clipboards, metre sticks, measuring tape, coloured pencils and regular pencils

Procedure

1. Teacher decides ahead of time which shrubs or trees, preferably deciduous, the students can choose from. The advantage with shrubs is that they usually produce flowers, whereas young trees do not.
2. Students may choose to work alone or with a partner.
3. In class, go over what the students will be doing outside. Depending on the time of the year and how elaborate the teacher wishes to make this activity, the children may be:
 - choosing a tree or shrub they wish to “adopt” for the year
 - giving the tree an appropriate nickname (e.g. Woody)
 - recording the species (older children may be able to do this based on leaf characteristics)
 - estimating or directly measuring the height of the tree
 - measuring the circumference at the base
 - making a bark rubbing and gluing it in their notebook or journal
 - making an accurate colour drawing of the entire tree
 - making an accurate colour drawing of the leaf
 - measuring the length and width of an average leaf
 - recording whether the leaves are opposite or alternate, simple or compound
 - taking a leaf, pressing it in the pages of a book and allowing it to dry; covering with Mactac, putting it in a notebook or on a bulletin board
 - photographing the tree with children standing in front (may be done several times during the year)

- in the late winter, choosing a specific bud to observe over the spring. Place a piece of masking tape adjacent to the bud so as to remember which it is. Record, measure, draw the growth (leaf, stem, flower) that comes from the bud
- recording signs of insect activity in the tree
- recording other changes such as fall colour, leaf-fall dates, leaf-out dates in spring, flowering dates etc.
- making a class bulletin board of the adopted trees
- taking a cutting from the tree in late winter, putting it in water in a bright window and seeing if it will leaf out

Sample Observation Sheet

Season	Estimated Height	Observations	Sketch of Tree, Leaves etc.

Discussion and Questions

- At the beginning of the year, whole group discussions are best. Children share their observations orally.
- Charts and graphs can be made on topics such as comparing tree height, leaf size, leaf-drop dates, etc. N.B. The trees can be visited just before or after recess on a regular basis in order not to miss any changes.

Student Evaluation

- Observation sheets can be evaluated on the ability to provide oral or written description of the tree or shrub.
- Students can be observed and assessed on their cooperation and independent work skills while outdoors.

Enrichment and Extension Activities

Students could be encouraged to go further in their observations, drawings, recording method, use of graphs, etc. For example, they could make detailed drawings of the trees' flowers and label the parts. They may also wish to make a list of all the trees on the school grounds that they can identify.

Students should be encouraged to make sure their tree is healthy and is getting enough water. They may wish to take on some of these responsibilities themselves.

Educator Notes

- The bulletin board with pictures of the kids standing in front of their trees can be left up all year long. Parents love it.
- You will find that they children become quite attached to their tree and remember its nickname years later.

References

Most tree guides have information on how to identify trees based on characteristics of the leaves.

- National Audubon Society - First Field Guide to Trees, by Brian Cassie (Scholastic Inc.)
- Introducing Trees, by Pamela Hickman (Federation of Ontario Naturalists)