

Forests are the real classrooms of BC

By: Janie Dubman, Wildlife Infometrics Inc.

Mackenzie is a small community in north-central BC, 2 hours' drive from the nearest city (Prince George) and with limited resources for extracurricular educational resources. To many people, this may seem like a challenging educational environment. However, our little community is richly endowed with access to one of the world's the most dynamic and multi-faceted educational tools: a living forest.

In 2014, a local biologist working for a small consulting firm initiated an environmental education program in partnership with Morfee Elementary School. It began with a field trip focusing on local spawning trout, and has gradually evolved to provide outdoor, hands-on activities for all elementary grade levels.

Today, the program is coordinated by biologist Janie Dubman, funded by several sponsors including the Fish and Wildlife Compensation Program, and includes three modules that use the local forest as an outdoor classroom. All three were developed in collaboration with teachers and are integrated with the provincial learning curricula and the current teaching units. We would like to summarize these modules for you, hopefully giving you ideas and inspiring you to turn your local forest into an accessible, inexpensive and engaging extension of your classroom!

Grade 5 – Stages of a Forest Life Cycle

This module addresses the grade 5 curriculum content of 'sustainable practices around BC's natural resources'. The basic requirement is a forest that has mature/old trees adjacent to a somewhat recent cutblock. The field trip is based around 5 stations (though could be reduced to 3 or 4) that highlight different stages of a forest stand's life cycle: 1) a mature forest that needs to be surveyed with a clinometer and logger's tape, 2) a recent cutblock that needs to be planted with seedlings, 3) a young stand that needs to be checked for forest pests and diseases, 4) a medium-aged stand where we take a tree core and count the rings, and 5) a story-telling, indigenous-knowledge focused station. All of these stations can be organized with the help of a few foresters from the local ministry or major licensee office, and basic forestry field gear.

Grade 8 – Tree-planting

This module fits in well with the grade 8 science 'photosynthesis and cellular respiration' curriculum content. We usually implement this field trip on National Tree Day (last week of September), and use it as an opportunity to raise awareness of sustainable forestry practices, as well as encourage a sense of local environmental stewardship by students. Using seedlings donated by local nurseries, we spent a morning in a local cutblock that was recently logged. Students work in pairs to find appropriate microsites and plant as many seedlings as they can. This is also a good opportunity to educate about outdoor safety practices (bear awareness, appropriate gear, hydration, and communication).

Grade 9 – Timber-cruising

This module ties in with the grade 9 mathematics content of ‘statistics in society’ and ‘math in contextualized experiences’. The objective is to show the students the close links between basic classroom math and real-world applications. The module takes place over the course of three classes. On day 1 the teacher introduces sampling and surveys in the context of natural resource management (the trip leader can help as well), and the trip leader gives a short demo of the gear that will be used in the field (prism, clinometer, DBH tape and 50m measuring tape). On day two the class visits a local mature spruce (or other conifer) stand and each group collects data at one or two prism plots (the plot center locations should be laid out in advance). On the third day, the teacher and trip leader guide the students through the calculations based on their own field data; this stage can be lengthy to do by hand, and can benefit from automation in a pre-set Excel spreadsheets (as long as they students understand the underlying formulas). In the end, students combine current timber prices with their timber volume calculations to arrive at a timber value estimate for the entire stand.

Volunteers that made the field trips a reality:

Matthew Parker (BCTS)
Gavin Anderson (BCTS)
Dan Boulianne (MLMCF)
Amanda Mjolsness (Lignin)
Carmen Augustine (Canfor)
Sarah Curtis (Canfor)
Ryan Bichon (FLNRO)

Alyssa Skaalid (BCTS)
Dylan Mathis (BCTS)
Brandon Voysey (BCTS)
Som Pun (BCTS)
Graham Burrows (FLNRO)
Erin Ward (FLNRO)
Olivia Van Jarrett (FLNRO)

For more information about these field trips, tips and suggestions for implementation, or materials, please contact Janie Dubman at evgenia.dubman@wildlifeinometrics.com, or 250-997-5700.



