

FUSSS Forest Study



This education resource was produced by
the Galiano Conservancy Association
thanks to the financial support of:



Activity Name: FUSSS Forest Study

Ages: Grade 4 - 12

Activity Energy: Low

Length of time: 30 min – 1 hour

Number of Participants: 1 - 30

Indoor/Outdoor: Outdoor

Concept: Through observation and exploration, students learn easily observable indicators that can be used to measure the health of a mature forest ecosystem.

Materials Required: FUSSS booklet or chart (age dependant), pencils, clipboards

Introduction: There are several readily observable indicators of a healthy mature forest ecosystem. Familiarizing ourselves with them allows us to be able to assess the health of our environment and increases ecological literacy. Being able to quickly asses the health of a mature forest will allow students to make comparisons between forest ecosystems.

Methods:

Students obtain data by completing activities that involve sensory awareness, observations and measurements. A booklet (for younger ages) and a table (suitable for older students) have been created so that students can be self guided in their forest exploration while they retrieve relevant information. Participants are encouraged to study the forest based on 5 characteristics: Feeling, Understory, Size, Spacing, and Soil (FUSSS).

The first observation (Feeling) is performed as an entire group.

- **Feeling:** Explain that the health of a forest can be felt as well as scientifically studied. Ask the participants to sit in silence for 5 minutes using all of their senses to observe how the forest makes them feel. A healthy forest should feel 'good' and be noisy with life. Have them record it in their booklet and share it if they choose.

Break them into groups of 2-3 and have them complete the rest of the booklet. Quickly go through the remaining 4 characteristics to ensure that they are clear on their tasks.

- Understory: Students can use a simple guidebook to identify some of the main species that surround them.
- Size: The circumference of a tree can be estimated without a measuring tape. The distance from fingertip to fingertip of a person is the same as their height. For large trees, multiple people will be needed to encompass the tree.
- Spacing: Students can count how many heel to toe footsteps are required to walk from the base of the tree to the outermost reach of the canopy. This causes students to look up to the canopy as well as move out through the understory.
- Soil: Encourage participants to feel the soil, collect some of it and smell it, look through it to see what lives there and finally to jump on it to test its bounciness. Generally, soil in a forest is soft in a natural ecosystem and compacted in a degraded site.

A healthy forest will have indicators of diversity such as the number of trees and understory species, varying distances between trees and age of trees, and in the life of the soil.

Tips for Teachers:

- For a greater understanding of the importance and results of ecological restoration, this activity can be repeated in a degraded and / or restored forest and results can be compared with those of the healthy forest ecosystem (a mature forest is preferable).