

Saint John's Arboretum Environmental Education Field Classes

Maple Syruping

Objective: Students will discuss the main concepts of maple syruping, including its North American history, tree anatomy, mechanism of sap flow, and winter tree identification. Students will also participate in hands-on activities of the maple syrup production process, including maple tree tapping, maple sap collection, a tour of the sugar shack and evaporator, and taste testing a sample of real maple syrup.

Field Activities:

Maple Tree Tapping: Students will learn how to identify maple trees during the winter and participate in the process of correctly tapping a tree for sap flow. Students will also discuss how sap flows and why spring is the favored time for sap collection.

Maple Sap Collecting: Students will work in teams to participate in collecting sap from the tapped trees and transporting the sap to a central collection area.

Sugar Shack and Evaporator Tour: Students will see how the sap is converted to syrup by viewing the working evaporator and a small-scale model. Students will also discuss and view the entire syrup-making process, including measuring the sugar content, evaluating the grade of syrup, filtering the syrup, and bottling procedures.

Taste Test!: Students will be able to taste a sample of real maple syrup made at Saint John's. Students will also learn the difference between real maple syrup and other types of syrup. Everyone's favorite part!

Key points covered in each class: (dependent on age of students)

- Tree Tapping
 - identifying maple trees in the winter
 - procedure for correct tree tapping
 - why and how sap flows
 - tree anatomy
- Sap Collection
 - collection of sap from trees
 - importance of team work
 - what about all the bugs??
- Sugar Shack and Evaporator
 - Rule of 86
 - equipment used (hydrometer, refractometer, temperature gauge)
 - evaporation process
 - finishing and filtering syrup
 - history of syruping by Native Americans and at Saint John's

Other resources for maple syruping information:

www.csbsju.edu/maple/ Overview of history and process of maple syruping at Saint John's

www.andersonsmaplesyrup.com Order your own supplies at Anderson's Maple Syrup

At Grandpa's Sugar Bush by Margaret Carney and Janet Wilson

Sugaring Time by Kathryn Lasky

Keepers of the Earth by Michael J. Caduto and Joseph Bruchac.

Chapter 17 'Manabozho and the Maple Trees'