

LESSON PLAN

Lesson: Tree tapping
Duration: 45 minutes
Purpose: To teach the properties, method of production, purpose of sap in plants, and its uses in the kitchen.

Subjects:

- a. Life cycle of trees
- b. Structure and components of trees
- c. Photosynthesis and the production of simple sugars
- d. Process of concentration by evaporation.

Discovery:

- a. How do trees produce sap?
- b. How does photosynthesis work?
- c. When, where and why do trees store the sap?
- d. How big is the root ball of a tree?
- e. Where does syrup come from?
- f. How is syrup made?
- g. Different tastes and colours of syrup?
- h. What do you think sap will taste like?

How to tap a tree:

- a. Explanation and demonstration of equipment needed.
- b. Explanation of tagging trees and data collection
- c. Taste sap at natural state, 50% concentrated and syrup

Check out [this](#) Maple Tapping video for the full demonstration!

Field:

- a. Identify the maple tree.
- b. Point out exposure, canopy size, proximity to water
- c. Collect and record sap collected if necessary.
- d. Identify sap producing region of tree to be targeted by the drill hole.
- e. Measure circumference
- f. Tap the tree, getting students volunteers to do all the stages except drilling, and tag it.

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