

Program Title: Maple Sugaring

Intended Audience: School Group (K-2)

Time: 1.5 – 2 Hours

Summary: Students will learn about the maple sugaring process from start to finish! This will include a closer look at the science behind the procedure and the history of maple sugaring at Remick Farm and New England.

Standards Covered:

K-ESS2-2 Earth's Systems - Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

1-LS3-1 Heredity: Inheritance and Variation of Traits - Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

2-PS1-4 Matter and Its Interactions – Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

2-LS4-1 Biological Evolution: Unity and Diversity – Make observations of plants and animals to compare the diversity of life in different habitats.

Objectives: Students will learn how to identify a sugar maple tree outside and share that information with their peers. Students will be able to describe how sap is turned into syrup, and will have observed the process at a small scale commercial facility. Students will create a leaf rubbing or labeled diagram of the sugaring process.

Program Outline:

- 1) Introduction and Reading of “Maple Syrup from the Syrup House” (10 – 15 min.) – Students will start their maple syrup adventure out with a story that introduces the process to young learners.
- 2) What is a Sugar Maple? (20-30 min.) The most important part of maple syrup production is choosing the right tree! Students will learn how to tell apart maple trees from other common trees at the farm, and how to select the best trees for sustainably harvesting sap.
- 3) Let's Harvest the Sap! (10 – 20 min) Once the right tree has been picked, the students will help collect the sap by learning how holes are drilled to protect the tree and get the most sap. Students will also learn what sap is and be introduced to how it moves through a tree. Students will then bring the collected sap by bucket to the next stop on our journey; the sugar house!
- 4) Sap to Syrup (15 – 20 min.) At this stage of the lesson, students will observe Remick Farm staff turning maple sap into maple syrup at the sugar house! Students will learn how the heat from

the wood stove changes the sap into something completely different, right before their eyes! Students will also be able to take a tour around the sugar house, and see how sugaring has changed over time.

- 5) Summary/Wrap-Up (10 – 20 min.) To conclude our lesson, students will make a drawing of their favorite part of the sugaring process or make a leaf rubbing of a maple tree; depending on time and grade level of participants.