**From Sap to Syrup**

**Grade Level(s)**

2nd grade

**Estimated Time**

30 minutes

**Purpose**

Students recognize how geography and climate allow for the growth of maple trees and the process of making syrup, identify the characteristics of maple trees that produce the best sap for making maple syrup, and name the steps in the process of creating syrup from sap.

**Materials**

Links:

Website: [www.linncoag.com](http://www.linncoag.com) 2020/21 virtual learning- drop down- April

[April | mysite (linncoag.com)](https://www.linncoag.com/april)

FarmChat: [(5) Join us as we take a tour of Sweet Maple Farms! - YouTube](https://www.youtube.com/watch?v=ox5irSvCl4o)

Other:

Sap to syrup cards

Maple syrup taste test (100% pure maple syrup)

Crackers

Little plates

**Vocabulary**

**climate:** the prevailing weather conditions in a specific area over a long period of time

**evaporate:** turn from liquid to vapor

**legend:** a very old, unverifiable story passed down from one generation to the next

**maple syrup:** a thick, sweet liquid made by dissolving the sugar found in the sap of a maple tree by boiling

**maple tree:** a type of tree with lobed leaves and colorful autumn leaves used for timber or syrup

**natural resources:** materials or substances such as minerals, forests, water, and fertile land that occur in nature and can be used for economic gain

**sap:** the fluid made up mostly of water with dissolved sugars that circulate inside a plant or tree

**sugar house:** a building with equipment to turn maple sap into syrup

**sugaring season:** when maple syrup is made

**tap:** the hole put in a tree to extract sap

**Background**

**Maple trees** are a **natural resource** that are found almost anywhere but are most prevalent in the Northern Hemisphere. They are hardy but prefer, and are found, mostly in cool, wet **climates**. They like well-drained soil that is sandy or clayey with loose texture. There are at least one hundred species of maple trees. Fourteen species are found in the United States, with the majority of them found in the northeast and midwest sections of our country. Maple syrup can be made from any species of maple tree. Most **maple syrup** is made from the sugar maple due to its high sugar content. Generally, the ratio of **sap**to syrup for the sugar maple is 40 to 1 (40 gallons of sap yields one gallon of syrup).

**Interest Approach – Engagement**

1. Maple syrup taste test on crackers
2. Provide the students with a sample of maple syrup (without telling them what the sample is) to observe. Encourage them to taste it and consider how they would describe it, name it, and use it. Ask the students to think about how it was made.

**Procedures**

1. Watch the maple syrup FarmChat with Cindy G [(5) Join us as we take a tour of Sweet Maple Farms! - YouTube](https://www.youtube.com/watch?v=ox5irSvCl4o)
2. Ask the students to recap what they learned from the video
3. Review vocab words: sap, maple syrup, evaporate, sugar house, tap, and maple sediment
4. Ask the students to put the sap to syrup cards in sequence order.
5. Review and conclude the lesson

**Additional resources:** [Matrix Lesson (agclassroom.org)](https://www.agclassroom.org/matrix/lesson/672/) From Sap to Syrup

**Organization Affiliation**

National Ag in the Classroom and Linn County Farm Bureau

**Agriculture Literacy Outcomes**

Identify science careers related to both producers and consumers of ag products.

Distinguish between careers in production and with those that directly involve consumers.