Maple Syrup - 1.75hrs

Students hike to the "Sugar Bush" and in small field groups, learn to identify trees in the maple family and participate in the process of tapping the tree to collect sap. The groups regather at the evaporator to learn the next step in the process of making maple syrup from the sap. Each student receives a sample of syrup to taste.

Before you go

Inform students that they will be visiting Carpenter Nature Center to learn about the maple syruping, how to collect the sap and boil it down to syrup. As part of the experience students will be able to taste the syrup in a cake cone, so be sure to know which students have food allergies. Remind students that a portion of the time will be spent outside and that they should dress for the weather.

Timeline

0:00-0:30	Introduction—Learn the life cycles of deciduous trees and how that relates to maple syruping , and a brief history of the process
0:30-1:25	Practice identifying maple trees and learn how to properly tap a tree
1:25-1:45	Learn how to turn sap into syrup and sample some of Carpenter Nature Center's syrup

After You Leave

Have students create a guide on how to identify maple trees using the various properties discussed in the class.

Wisconsin Standards

Carpenter Nature Center address and partake in performance standards to help meet content standards. Additional classroom activities may be needed to complete performance standards.

Fourth Grade*:

Code	Performance Standard
A.4.1	When conducting science investigations, ask and answer questions that will help decide the general areas of science being addressed
A.4.2	When faced with a science related problem, decide what evidence, models, or explanations previously studies can be used to better understand what is happening now
A.4.4	When studying science related problems, decide which of the science themes are important
C.4.1	Use the vocabulary of the unifying themes to ask questions about objects, organisms, and events being studied

Code	Performance Standard
C.4.2	Use the science content being learned to ask questions, plan investigations, make observations, make predictions, and offer explanations
C.4.4	Use simple science equipment safely and effectively, including rulers, balances, graduated cylinders, hand lenses, thermometers, and computers to collect data relevant to questions and investigations
C.4.7	Support their conclusions with logical arguments
C.4.8	Ask additional questions that might help focus or further an investigation

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*more fourth grade and all fifth and sixth grade performance standards on the back.

Fourth grade continued:

Code	Performance Standard
D.4.3	Understand that substances can exist in different states-solid, liquid, gas
D.4.4	Observe and describe changes in form, temperature, color, speed, and directions of objects and construct explanations for the changes
E.4.5	Describe the weather commonly found in Wisconsin in terms of clouds, temperature, humidity, and forms of precipitation, and the changes that occur over time, including seasonal changes
F.4.2	Investigate how organisms, especially plants, respond to both internal cues (the need for water) and external cues (changes in the environment)

Fifth and Sixth grade:

Code	Performance Standard
A.8.1	Develop their understanding of the science themes by using the themes to frame questions about science related issues and problems
C.8.4	Use inferences to help decide possible results of their investigations and use observations to check their inferences
C.8.5	Use accepted scientific knowledge, models, and theories to explain their results and to raise further questions about their investigations
C.8.6	State what they have learned from investigations, relating their inferences to scientific knowledge and to data they have collected
C.8.11	Raise further questions which still need to be answered