

# MAPLE SYRUP TIME

Sweet Welcome To Spring

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## Teacher's Guide

Winter Program: Maple Syrup Time

Grade Level: Preschool – Eighth Grade

Field Trip length: 1.5 hours

### INTRODUCTION

After a long, cold and inactive winter, the sap begins rising in the sugar maple trees when the temperatures are above freezing. We know spring is finally on the way as sap rises from the roots to nourish the tiny leaf buds on the ends of the treetop twigs. Maple sugaring is a traditional activity first learned from the Native Americans that says good-bye to winter and welcome to spring. Our dates for maple syrup time are from mid-February through mid-March in central Illinois. Come join in the fun! We'll learn to identify a sugar maple tree in the woods as we hike the trails to find a sugar bush. Once we find our tree, we'll tap it, gather sap, observe the sap cooking down into maple syrup in the sugar shack, and even taste the sweet success of our labors.

### OBJECTIVES

1. To learn basic winter tree identification by bark, buds, and branching patterns.
2. To become familiar with the history of maple sugaring from the time of Native Americans to present in North America.
3. To participate in the total experience of maple sugaring – from locating a sugar maple tree, to tapping a tree, gathering sap, boiling the sap into syrup, and finally tasting the sweet syrup produced from the trees of Lincoln Memorial Garden.
4. To appreciate the beauty and wonder of nature as the seasons change.

**THIS PROGRAM HAS THE POTENTIAL TO MEET THE FOLLOWING ILLINOIS LEARNING STANDARDS:**

Learning Area	Goal	Standard	Benchmark
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Language Arts	1	A	1a, 1b
	4	A	1a, 1b, 1c, 1d
		B	1b
Mathematics	6	D	1
	7	A	1a
		B	1a, 1b
Science	11	A	1b, 1c, 1f
	12	A	1a, 1b
		B	1b
	13	A	1a
		B	1a
Social Science	17	A	1a
		B	1a
Physical Development	19	C	1

### SUGGESTIONS FOR PRETRIP ACTIVITIES

1. Research and tell Native American legends of how maple syrup came to be in the world. See resource list for books with myths and legends. After children have heard legends of Native Americans, ask them to create tales of their own about the origin of maple sugaring.
2. Take a winter walk through the schoolyard or neighborhood. Look carefully at the deciduous trees. Examine buds, bark and branching patterns. Note differences and similarities. Create art projects that depict winter trees, emphasizing the identifying characteristics of trees in the nearby area. Consult a winter tree identification guide for accurate information.
3. Read any of the books about maple sugaring that can be found in the Resource List at the end of this teacher's guide.
4. Encourage the class to brainstorm a list of the importance of trees. (provides homes for animals, beautifies the land, provides shade, makes oxygen, gives us food, provides wood for shelter, furniture, etc.)
5. Dramatize the rise of sap in trees. Dramatize the life of a tree through the four seasons.

### DESCRIPTION OF LINCOLN MEMORIAL GARDEN FIELD TRIP

Join the Lincoln Memorial Garden staff in one of our favorite traditions – **Maple Syrup Time!** Welcome in springtime with the annual event that all begins when the ground begins to thaw and temperatures creep above freezing around the middle of February. As the sap begins to flow again from the roots to provide nourishment to the tiny leaf buds, it's a sure sign that spring is on the way. Let's hike to find a Sugar Maple tree in one of the Garden's sugar bushes, tap it with our tools, gather sap from nearby trees, take it to the sugar shack and observe our evaporation process to make syrup, and lastly, taste the delicious maple syrup! **Maple Syrup Time** is a field trip to Lincoln Memorial Garden that invites students and teachers to participate in all aspects of making maple syrup and heightens greater appreciation for the history and natural science behind the first commercial enterprise of North America. A general appreciation for this special time of changing seasons is encouraged with the fun-filled purposeful field trip.

The field trip will begin with a brief introduction to Lincoln Memorial Garden in the Discovery Room of the Nature Center. A naturalist will lead a discussion about the history of the Garden, the history of Maple Syrup Time in North America, and an overview of the steps of the maple sugaring process we will experience when we head out onto the trails.

The school group will be divided into small groups of 10 – 12 students. During the naturalist-led hike, the group will learn how to identify a Sugar Maple tree and use the appropriate tools to tap a tree. Then, if the weather has cooperated and there is sap to gather, we'll move through a sugar bush collecting the sap from jugs on the trees. Next, we take the collected sap to our sugar shack (evaporation station) and observe the process of evaporating the excess water and making maple syrup over an outdoor fire. Lastly, we sample the delicious maple syrup made from the sap of our trees at Lincoln Memorial Garden. We will conclude our hike by returning to the warmth of the Discovery Room in the Nature Center. Students will be able to explore exhibits and hands-on activities to learn more about the natural world of central Illinois.

### **SUGGESTIONS FOR POST TRIP ACTIVITIES**

1. Prepare some pancakes or waffles in the classroom, serve them with maple syrup, and give the children an opportunity to really savor the taste of pure maple syrup as a healthy snack.

2. Read and research to learn more about the Native American tribes who produced great quantities of maple sugar during maple moon season. Ask small groups of children to research different tribes and to compare their methods of maple sugaring, as well as, their celebrations of the sugaring season ended and spring returned.
3. Read and research about how European settlers in North America learned to make maple syrup from the Native Americans and adapted the methods with their iron tools and containers. Create a Venn diagram with the class to demonstrate the similarities and differences between the two methods.
4. Read and share any of the books included in the Resource List.
5. Ask students to plan and to carry out a maple sugaring off celebration that welcomes in springtime. Help the children to find recipes that use maple syrup to create a buffet of maple infused tastes. (maple cookies, cakes, candies, ice cream, barbecued meats and even carrots!) can be prepared by the children to encourage to apply math by measuring ingredients and to develop culinary skills of food preparation. Research olden games played by Native American and pioneer children at the end maple syrup season.

### RESOURCE LIST FOR MAPLE SYRUP TIME: Sweet Welcome to Spring

Carney, Margaret. *At Grandpa's Sugar Bush*. Scholastic Books. 1996

Chall, Marsha Wilson. *Sugar Bush Spring*. Lothrop, Lee & Shepherd Books. 2000

Gokay, Nancy Hatch. *Sugar Bush – making Maple Syrup*. Hillsdale Publishers. 1980

Haas, Jessie. *Sugaring*. Greenwillow Books. 1996

Hauser, Susan Carol. *Sugaring: A Maple Syrup Memorior, with Instructions*. The Lyons Press. 1997

Hauser, Susan Carol. *Sugartime: The Hidden Pleasures of Making Maple Syrup*. The Lyons Press. 1997

Kakkak, Dale. *Ininatig's Gift of Sugar: Traditional Native Sugarmaking*. Lerner Publications. 1993

Keller, Kristin Thonnes. *From Maple Trees to Maple Syrup: First Facts from Farm to Table*. Lerner Publications. 2004

Lassonde, Barbara Mills. *Maple Sugaring in New Hampshire*. Arcadia Publishing. 2004

Lasky, Kathryn. *Sugaring Time*. Macmillan Publishing Co. 1983

Lockhart, Betty. *The Maple Sugaring Story: A Guide for Teaching and Learning about the Maple Industry*. Perceptions Vermont. 1990, 2004 (DVD of *the Maple Sugaring Story* also available).

Mann, Rink, *Backyard Sugarin'*. The Countryman Press. 1976, 1984

Mitchell, Melanie. *From Maple Tree to Syrup*. Lerner Publications, Co. 2004

Nearing, Helen and Scott. *The Maple Sugar Book*. Schocken Books. 1950

Nearing, Helen and Scott. *Living The Good Life*. Schocken Books. 1954, 1970, 1984

Perrin, Noel. *Amateur Sugarmaker*. University Press of New Hampshire. 1972, 1986

Purmell, Ann. *Maple Syrup Season*. Greenwillow Books. 2008

Rossiter, Nan Parson. *Sugar On Snow*. Dutton Children's Books. 2002

Sipp, Leora. *Logan Learns About Maple Syrup*. Authorhouse. 2005

Wilder, Laura Ingalls. *Sugar Snow (My First Little House)*. HarperCollins. 1932

Wood, Douglas J. *Primitive Maple Sugaring and Cookery*. West Wind Graphics. 1987

