



Maple Sugaring

PATCH PROGRAM

Girl Scouts of the Green and White Mountains
Serving New Hampshire and Vermont

Revised 02/2009 kag

MAPLE SUGARING

The sugaring season is a wonderful part of Vermont and New Hampshire culture. Who can resist the sweet smell and taste of syrup! Explore the history of maple sugaring and find out the secrets to making the “sweet stuff”!

DAISY AND BROWNIE REQUIREMENTS

Requirements: Complete 3 Discover and 1 Connect Activity.

DISCOVER ACTIVITIES

Girls Gain Practical Life Skills

- Maple syrup is made from sap that comes from a maple tree. All trees have sap, but we only tap maple trees in order to make syrup. Sap is the “life blood” of a tree, flowing through the tree and bringing food to all parts of a tree. Make a list of all the different kinds of maple trees found in Vermont and/or New Hampshire. Circle the ones we tap for maple sugaring. Using a field guide, find out how to identify maple trees by their leaves and by their buds. Why can’t we identify maple trees using their leaves during the sugaring season? Draw a picture of a maple tree including these parts: roots, trunk, bark, branches, buds, and crown. Imagine the sap flowing up from the roots, through the trunk, out the branches and up into the crown of the tree.
- Using a simple recipe, make something with maple syrup in it. List some other uses of maple syrup, and some other types of maple products. Get creative and make up a recipe of your own!

Girls Seek Challenges in the World

- There are many sugaring operations across the states of Vermont and New Hampshire. When the steam rises from the sugarhouse, you know the sweetest season has arrived! Read a story (see Resource List) or visit a nearby sugaring operation and find out how sap is collected and turned into maple syrup. Make a picture book of the process using the following questions to help you along. What kind of weather is needed for the sap to flow in the maple tree? How is the sap removed from the trees and collected? How does the sap get to the sugarhouse? What has to be done to the sap for it to turn into syrup? How much sap does it take to make one gallon of syrup? What is the syrup stored in after it is made? When does sugaring season end and why? Can you make maple syrup during any other time of year?
- Did you know that there are two kinds of maple syrup? One kind comes from maple trees, the other comes from corn! Put your tongue to the test and see if you can tell the difference between real Vermont and/or New Hampshire maple

syrup and imitation syrup you find in the grocery store. Do a “blind” taste test and use all your senses to help you out! LOOK at how the syrup drips and pours; SMELL each kind; and of course, TASTE both. Can you tell the difference? Read the ingredient labels of both and discuss what you find there.

Girls Develop Critical Thinking

- The native people of the Northeast were some of the first people to discover how to turn sap into syrup. The Abenaki set up sugaring camps each spring to turn sap into sugar cakes. There are many wonderful legends that tell the story of maple sugaring. Find a legend (see Resource List) to read together and then draw pictures to tell the story or create a skit to act out together.

CONNECT ACTIVITIES

Girls Feel Connected to Their Communities

- Maple sugaring is a part of Vermont and New Hampshire’s economy. A sugar bush is much like a vegetable farm. The sugar maker sells her product at stores in order to make money to support her farm and family. Interview a sugar maker and find out what their job is like during sugaring season. Ask them how their work contributes to the maple sugaring industry in their state. Find out where they sell their syrup and how they decide how much it will cost.
- Compare the cost of real maple syrup with imitation maple syrup. Which type of syrup costs more and why? Are there other places in the United States where maple syrup is made? How about in the world? Why can’t people in Florida make maple syrup and where does their maple syrup come from?
- Visit a Sugar-on-Snow Party! Check out the Vermont and/or New Hampshire maple sugaring websites (see Resource List) to find out when the maple open house weekend is being held. It’s typically the third weekend in March. You’ll find some amazing maple treats!

JUNIOR AND CADETTE REQUIREMENTS

Requirements: Complete 4 Discover and 2 Connect Activities

DISCOVER ACTIVITIES

Girls Develop Positive Values

- Just like any form of agriculture, the sugar maker has to learn how to care for their trees. Ask a sugar maker or investigate how the following can affect a sugaring operation: acid rain, over-tapping, insects, soil health.

Girls Gain Practical Life Skills

- Weather is a factor that largely determines whether a sugaring season will be a good one or a poor one. Freezing temperatures alternating with thawing temperatures are needed in order for the sap to “run” or move inside the tree. Find out what kind of temperatures make the sap run best and why. Use your answer to explain where sugaring takes place in the United States and in the world. Keep a journal of weather temperatures during the month of March and predict days during which the sap will run. Determine from your prediction whether the weather created a good sugaring season or a poor sugaring season.
- There are several different kinds of maple trees in New Hampshire and Vermont. Which two types of maples can be tapped for syrup? Which is preferred? Using a field guide, learn to identify these two types of maple trees using only the branches and buds. What type of branching do maple trees have: alternate or opposite? Make a sketching of maple tree twigs and buds. Try to distinguish the two types of maples used in sugaring.
- Many changes have occurred in the sugaring process throughout time. Compare how the early settlers made syrup to how folks in the 1900s made syrup. What are some of the most modern methods of collecting and processing sap?
- Find a simple recipe. Make one that uses white sugar and one that uses maple syrup. See if you can taste the difference. Try finding a recipe that uses maple syrup in a main dish, a dessert, a drink, with a vegetable. Have a maple syrup themed potluck!

Girls Develop Critical Thinking

- The native people of New Hampshire and Vermont, the Abenaki, learned to use maple sap long before the Europeans came to our region. We know that native peoples had a deep connection with nature. They hunted and gathered food seasonally, created tools from things found in nature, and worked together in large family groups in order to meet their daily needs. How do you think the Abenaki made maple sugar? What kinds of tools did they use and how are they

different than what we use today? Why do you think they made sugar cakes instead of syrup? What role do you think children played during the sugaring season? Learn some Native American words associated with maple sugaring (see Resource List).

CONNECT ACTIVITIES

Girls Feel Connected to Their Community

- Interview a sugar maker and find out what their job is like during sugaring season. Ask them how their work contributes to the maple sugaring industry in their state. Find out where they sell their syrup and how they decide how much it will cost.
- Find out how real New Hampshire and/or Vermont syrup compares in price to imitation syrup. Why is one more expensive? Find out if the cost of real maple syrup changes due to the grade of the syrup. Make a list of all the different types of containers syrup comes in. Does the container change the price? Imagine you are a sugar maker and design your own container and label for your syrup.
- Create a list of sugar houses in your area where visitors are welcome (see Resource List). Call ahead and make a plan for a visit! Learn the following on your visit:
 - a. Learn how to tap a tree. List the tools used.
 - b. Some use buckets, some use tubing. What are the advantages and disadvantages of each?
 - c. Help gather sap. What is sap made up of? Taste it. How is it different than syrup? How many gallons of sap does it take to make one gallon of syrup?
 - d. Go into the sugarhouse and locate the following: arch, preheater, evaporator pan, thermometer, hydrometer, hydrometer cup, canner, filter, sugar sand and cupola.
 - e. Find out how syrup is graded and what each grade means. Taste different grades if you have the opportunity.
 - f. Take pictures or draw pictures to show the steps involved in making syrup.

RESOURCE LIST

Books

At Grandpa's Sugar Bush by Margaret Carney and Janet Wilson
Sugar on Snow by Nan Parson Rossiter
Sugar Snow by Laura Ingalls Wilder
Sugarbush Spring by Marsha Wilson Chall
Sugaring by Jessie Haas
Sugaring Time by Katheryn Lasky
The Maple Syrup Book by Marilyn Linton
The Missing Maple Syrup Sap Mystery: Or, How Maple Syrup Is Made by Gail Gibbons
The Sugaring-Off Party by Jonathan London

Native Peoples

Ininatig's Gift of Sugar; Traditional Native Sugarmaking (We Are Still Here)
by Laura Waterman Wittstock and Dale Kakkah
Keepers of the Earth; Native American Stories and Environmental Activities for Children by Michael J. Caduto and Joseph Bruchac
Maple Moon by Connie Crook and Scott Cameron

Leader Background

Sweet Maple by James M. Lawrence and Rux Martin
The Maple Syrup Book by Janet Eagleson and Rosemary Hasner
The Maple Sugaring Story; A Guide for Teaching and Learning About the Maple Industry by MaryAnn Lockhart

Websites

http://www.boston.com/travel/explorene/specials/maplesyrup/specials/maple_map/
(Location of sugarhouses in New England)
www.nhmapleproducers.com [New Hampshire Maple Producer's Association]
www.visitnh.gov/best-time-to-visit/maple-sugaring.aspx
<http://www.nhliving.com/maplesugaring/index.shtml>
www.vermontmaple.org [Vermont Maple Sugar Maker Association]
www.uvm.edu/~uvmmaple/begsugmk.htm
www.vtliving.com/maple/history.shtml

Other

Green Mountain Audubon Center, Huntington, VT offers a badge program for Girl Scouts at their Center's sugaring operation. Tap trees, visit an Abenaki longhouse, and tour sugarhouse! Visit www.vt.audubon.org or call (802) 434-3068.

MAPLE SUGARING EVALUATION

Troop/Group Age Level: Daisy____Brownie____Junior____Cadette____

Troop/Group

Leader: _____

Street: _____ City: _____ State: _____ Zip: _____

Phone#:(day) _____ (evening) _____ (cell) _____

1. Which activities did your troop/group enjoy the most?

2. Did you change or adapt any activities? In what way?

3. Would you suggest any changes?

4. Comments:

Please mail your Maple Sugaring Evaluation and Patch Order forms to:

**Our Store
Girl Scouts of the Green and White Mountains (GSGWM)
PO Box 10832
Bedford, NH 03110-0832**

MAPLE SUGARING PATCH ORDER FORM

Please return your Maple Sugaring patch order and evaluation forms together!

Troup Age Level: Daisy ___ Brownie ___ Junior ___ Cadette ___

Troop
Leader: _____

Street: _____ City: _____ State: ___ Zip: _____

Phone#:(day) _____ (evening) _____ (cell) _____

_____ # of patches @1.50 each \$ _____

Shipping/handling (see below): \$ _____

Total enclosed: \$ _____

VISA and MasterCard are also accepted.

Please charge my: VISA MasterCard

Signature: _____
(A signature is required on all credit card orders.)

Account #: _____

Expiration date: __ / __

Shipping and handling rates

Under 18.99	\$4.50	\$75-\$99.99	\$10.00
\$19-\$29.99	5.75	\$100-\$149.99	12.50
\$30-\$44.99	7.50	\$150-\$199.99	13.75
\$45-\$59.99	8.00	\$200-\$249.99	18.50
\$60-\$74.99	9.50	Over \$250.00	23.00

If you have any questions, call 603-627-4158 or 1-888-474-9686.