



Maple Production - Hidden in History

Name _____

Find the following hidden objects in the picture below:
banana, needle, fish, toothbrush, paper clip, open book, bell, tack, pencil, ice cream cone





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Name _____

Find twelve hidden objects in the picture .

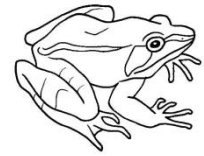
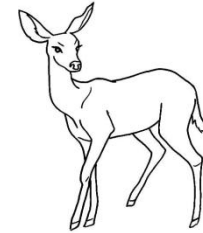
FIND: fish, pencil, toothbrush, paper clip, ice cream cone, comb, needle, shoe, light bulb, piece of pizza, mouse, heart



Sugarbush Animal Classification

Name _____

Maple producers have many animal friends who live in the sugarbush. Help them classify each animal on the list.



Sugarbush animals

Turtle
Squirrel
Wood Pecker
Rabbit
Deer
Chipmunk
Turkey
Peeper
Frog
Fox
Salamander
Snake
Grouse
Owl
Hawk

Mammals

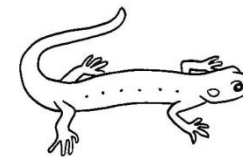
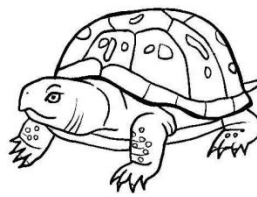
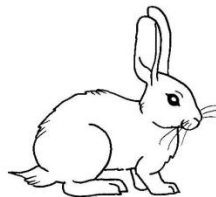
Birds

Amphibians
and Reptiles

1. _____
2. _____
3. _____
4. _____
5. _____

1. _____
2. _____
3. _____
4. _____
5. _____

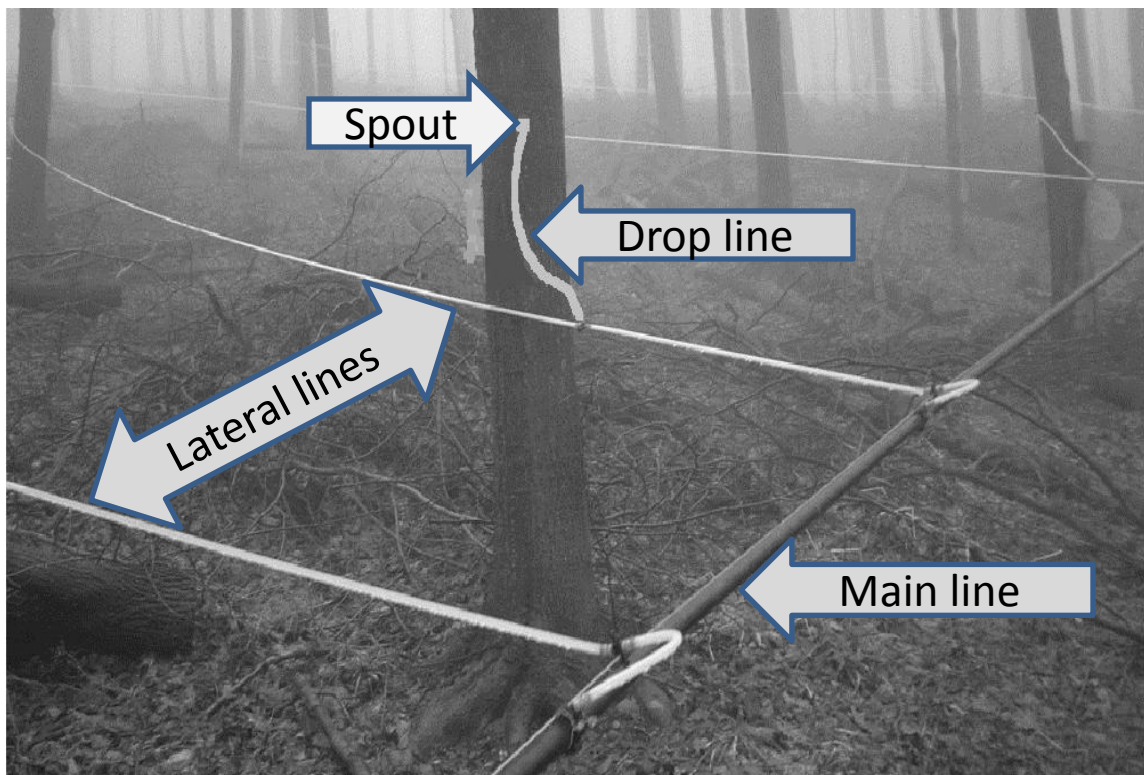
1. _____
2. _____
3. _____
4. _____
5. _____



Maple Math – Adding spouts on tubing

Name _____

A maple tubing system is made up of several parts. At the tree is the spout, it is placed in the tap hole and connected to the drop line. Several drop lines will connect to the lateral line and several lateral lines will connect into the main line which delivers the sap to the sugarhouse or holding tank.



The number of spout and drop lines on each of 4 lateral lines are listed below.

Lateral line #1 has 4 spouts

Lateral line #2 has 5 spouts

Lateral line #3 has 5 spouts

Lateral line #4 has 3 spouts

The 4 lateral lines are connected to a mainline. Add the spouts below.

Line #1	4	Line #3	5
+Line #2	5	+Line #4	3
1 st Total	___	2nd Total	___

How many spouts are on mainline?

**Add 1st total _____
and 2nd total _____ = _____ spouts**

If each tap hole yielded 20 gallons of sap during the sap season, this mainline would carry a total of 340 gallons of sap, enough to make 8 gallons of maple syrup



Maple Languages

Name _____



New York Agriculture in the Classroom
www.agclassroom.org/ny

Maple syrup is made in North America but not everyone who makes maple syrup speaks the same language. In the United States most maple producers speak English while in Canada maple producers speak French, English or both. See if you can learn to speak and write both.

English

Say the number/ Spell the number

1. One _____
2. Two _____
3. Three _____
4. Four _____
5. Five _____
6. Six _____
7. Seven _____
8. Eight _____
9. Nine _____
10. Ten _____

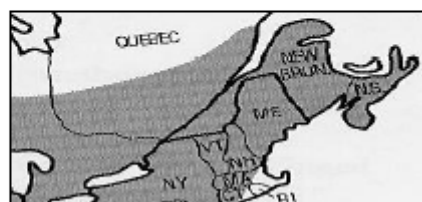
French

Say the number/ Spell the number

- Un _____
- Deux _____
- Trois _____
- Quatre _____
- Cinq _____
- Six _____
- Sept _____
- Huit _____
- Neuf _____
- Dix _____

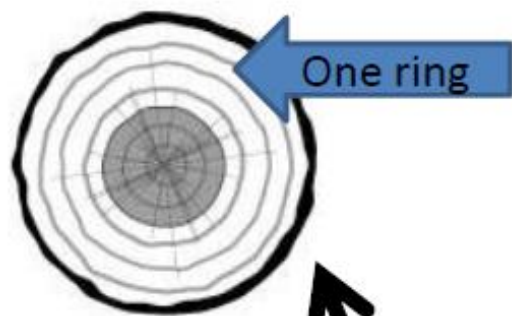


Quebec is the only place where more maple producers speak French than English

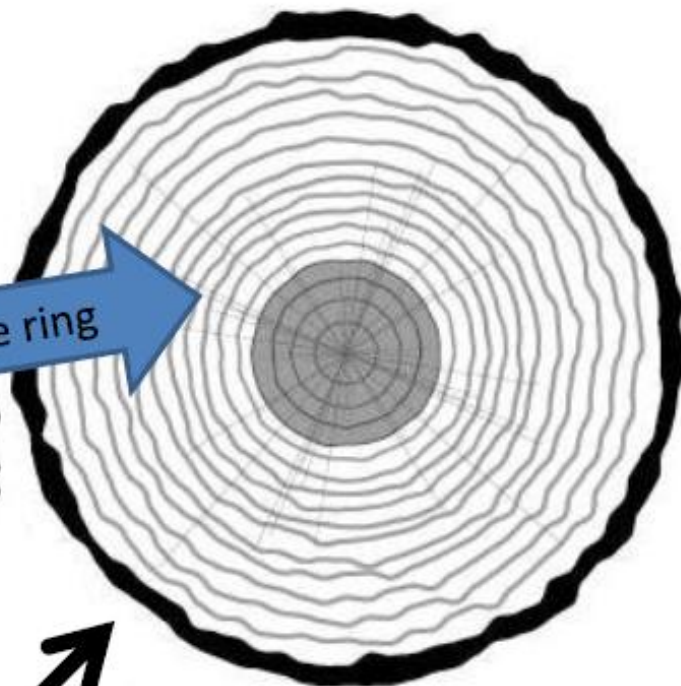
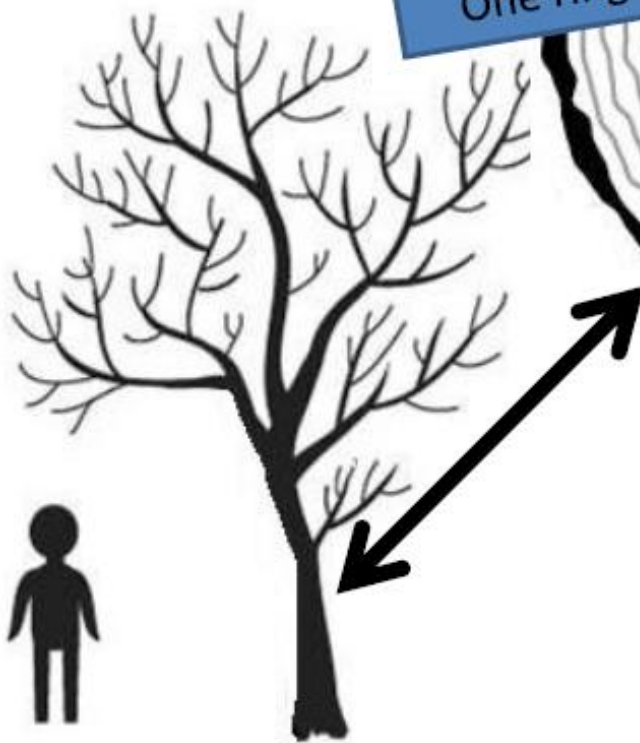


The gray shading on the map shows where sugar maples grow, they only grow in the southern half of Quebec.

A maple tree grows by adding a new ring of wood each year. By counting the rings we can tell how old a tree is. How old are these trees?



This tree is too young to tap. How many growth rings does it have? ____



This tree is still too small to tap. How many growth rings does it have? ____

Turn to the back of this page when this side is finished

This tree is just big enough to tap for the first time, 10" in diameter. How many rings does this tree have? _____. How many years old is it? _____

It takes many years for a maple tree to grow big enough to tap, usually 25 to 70 years, less years where it gets lots of sun, more years where crowded by other trees.

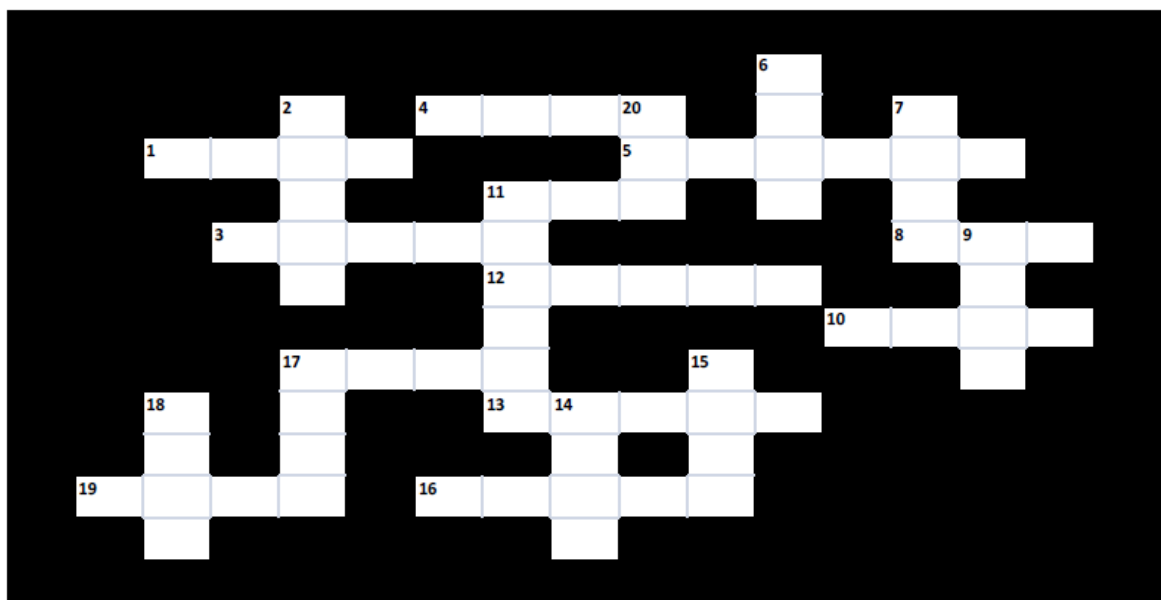
Tree Bark

One ring



Maple Words – Cross Word Puzzle

Name _____

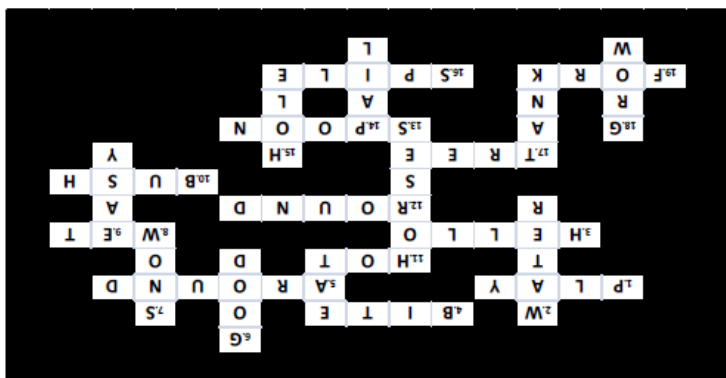


Across

1. I have fun when I _____
3. What I say when I meet someone _____
4. When I get maple candy I take a _____
5. I like to run _____ in a sugarhouse
8. When it rains the trees get _____
10. You collect sap in a sugar _____
11. Boiling syrup is very _____
12. The trunk of the tree is _____
13. I eat maple ice cream with a _____
16. A spout or _____ is placed into the tap hole
17. Sap comes from a _____
19. Pancakes with syrup I eat with a _____

Down

2. Sap is made up mostly of _____
6. Maple cream tastes so very _____
7. When the maple season starts, the woods are full of _____
9. Making maple syrup is hard work not _____
14. You can collect sap with a _____
15. Sap comes out of the tap _____
17. Sap is stored in a big _____
18. The sun makes a maple tree _____
20. Maple syrup is great to _____



Word Bank

Easy, Water, Hello,
Horses, Tank, Pail,
Play, Fork, Spile, Good,
Snow, Bite, Bush,
Round, Hot, Grow,
Hole, Tree, Spoon, Wet



Maple Words

Name _____

Circle the words from the list
as you find them in the puzzle.

Maple
Spoon
Cake
Old
Hike
Steam
Jug
Cook
Green

Trees
Farm
Sugarhouse
Money
Ate
Cotton
Pan
Snack
Eat

Butter
Maple
Soil
Woods
Tap
Bush
Snow
Gallon
Tubing



Maple Geography

Name _____

Maple syrup is made only in North America. It is made in some of the states of the United States and in several provinces of Canada. Draw a line from the state symbol on the map to the name of the state or province.

New York

Vermont

New Brunswick

Maine

Ohio

Minnesota

Michigan

Indiana

Ontario

Illinois

Wisconsin

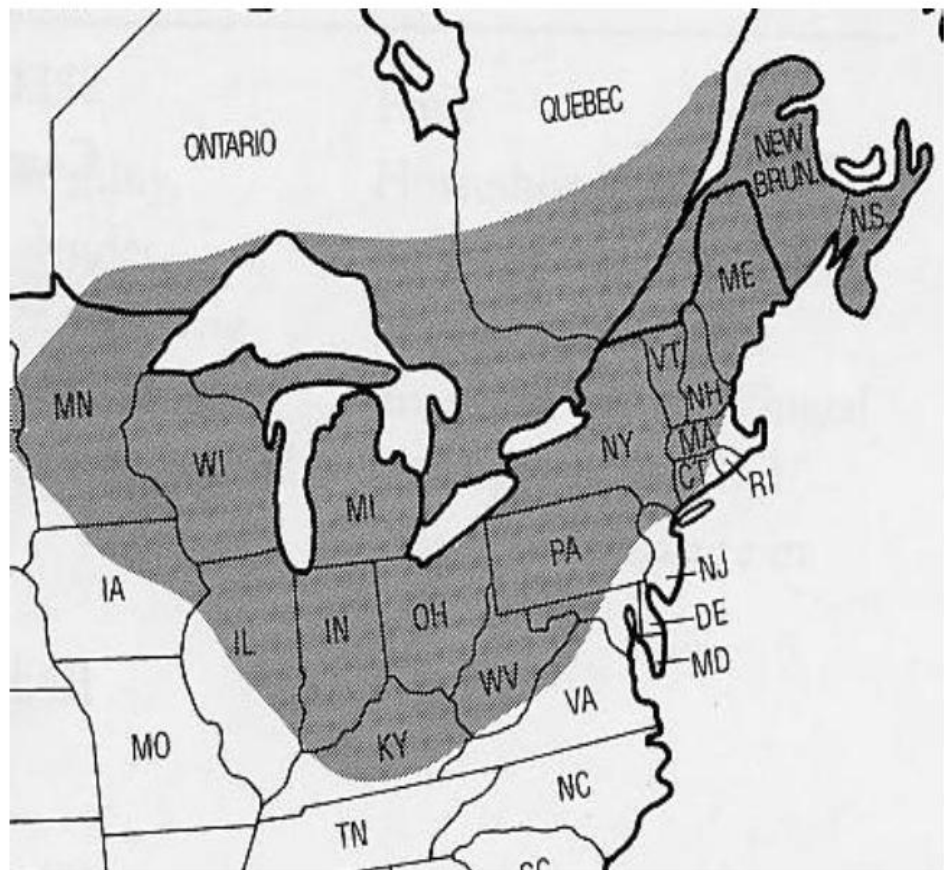
Kentucky

West Virginia

Pennsylvania

New Jersey

New Hampshire



Massachusetts

Rhode Island

Nova Scotia

Connecticut

In the United States Vermont makes the most syrup followed by New York second and Maine third. In Canada Quebec makes more maple syrup than all the other states and provinces combined.



Maple syrup is made only in North America. It is made mostly around the area of the Great Lakes, St. Lawrence River and the Atlantic Ocean. Draw a line connecting the Lake, the River and the Ocean to the correct name.

Lake Superior

Atlantic Ocean

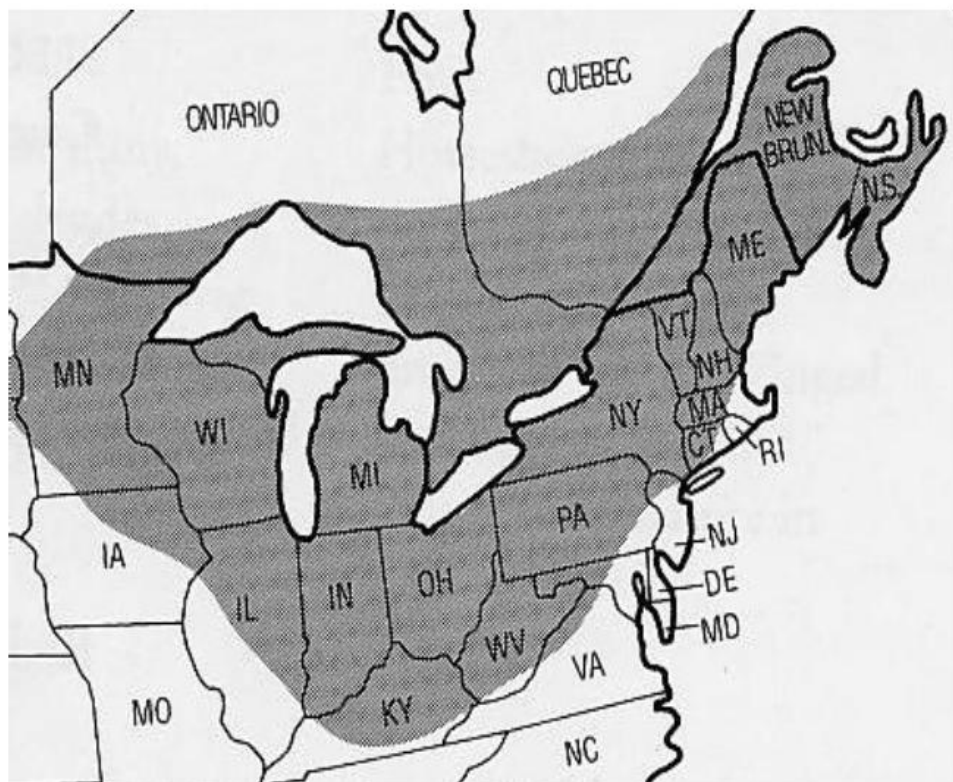
St. Lawrence
River

Lake Huron

Lake
Michigan

Lake Erie

Lake Ontario



Sugar maple trees grow best where it is cold in the winter and plenty of rain in the summer. They do not grow well where it is either too hot or too dry.



Maple Production in History – Boiling Sap

Name _____



In the 1700s and 1800s maple sap was usually boiled outside in large cast iron kettles hung over a wood fire. The whole family would be involved in collecting firewood and gathering sap. Usually the sap was boiled to make granulated maple sugar rather than the maple syrup common today.

Questions from the story and picture

1. Boiling sap takes a lot of heat, the fuel used to boil sap was _____.
2. Instead of making maple syrup from sap the early settlers made the sap into _____.
3. The sap was usually boiled in large kettles made of cast _____.
4. Today maple sap is usually boiled in a sugar house, back then it was boiled _____.



Maple Production in History – Gathering Sap

Name _____

In the 1700s and 1800s maple sap was collected in wooden buckets. Gathering the sap was done by hand where the



buckets full of sap were carried to the boiling kettles. At times a yoke was used to make the trip easier. If the sugar maples were too far away, sap was poured into a gathering tank that was mounted on a sled pulled by horses or oxen.

Questions from the story and picture

1. As the sap came from the tree it was collected in _____ buckets.
2. A sled mounted with a gathering tank would be pulled by horses or _____.
3. A maple producer could carry buckets of sap more easily if they used a _____.
4. If the sugar maples were not too far away the _____ would be carried by hand in buckets to the boiling kettles.



1 = a
 2 = b
 3 = c
 4 = d
 5 = e
 6 = f
 7 = g
 8 = h
 9 = i
 10 = j
 11 = k
 12 = l
 13 = m
 14 = n
 15 = o
 16 = p
 17 = q
 18 = r
 19 = s
 20 = t
 21 = u
 22 = v
 23 = w
 24 = x
 25 = y
 26 = z

Maple Letters

Name _____

Match the letters to the numbers to complete the secret message!

MAPLE _____ ARE _____ IN FEBRUARY OR

_____ BY _____ A _____ IN THE

_____, TREES WILL _____ 1, 2 OR 3 _____ HOLES

_____ ON THE TREE _____, A _____ OR

_____ IS PUT _____ THE TAP HOLE. SPOUTS _____

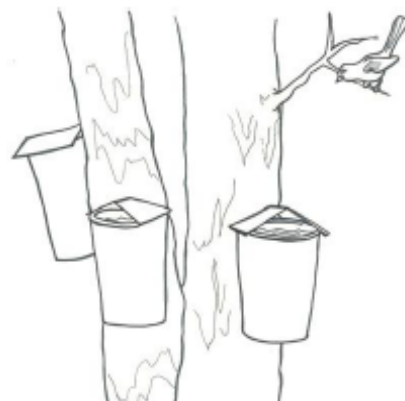
EITHER _____ OR _____ TUBING ATTACHED

TO _____ THE SAP. SAP WILL _____ EACH _____

THE TEMPERATURE _____ BELOW _____

FOLLOWED BY A _____, SPOUTS ARE REMOVED

AT THE _____ OF THE SYRUP _____



Add the numbers to find the letters that spell a tasty maple treat.

$$\begin{array}{r} 8 \\ +2 \\ \hline \end{array} \quad \mathbf{Y}$$

$$\begin{array}{r} 5 \\ +6 \\ \hline \end{array} \quad \mathbf{M}$$

$$\begin{array}{r} 6 \\ +9 \\ \hline \end{array} \quad \mathbf{P}$$

$$\begin{array}{r} 1 \\ +2 \\ \hline \end{array} \quad \mathbf{T}$$

$$\begin{array}{r} 3 \\ +4 \\ \hline \end{array} \quad \mathbf{A}$$

$$\begin{array}{r} 5 \\ +3 \\ \hline \end{array} \quad \mathbf{B}$$

$$\begin{array}{r} 11 \\ +12 \\ \hline \end{array} \quad \mathbf{E}$$

$$\begin{array}{r} 8 \\ +9 \\ \hline \end{array} \quad \mathbf{N}$$

$$\begin{array}{r} 7 \\ +9 \\ \hline \end{array} \quad \mathbf{C}$$

$$\begin{array}{r} 14 \\ +6 \\ \hline \end{array} \quad \mathbf{F}$$

$$\begin{array}{r} 21 \\ +6 \\ \hline \end{array} \quad \mathbf{K}$$

$$\begin{array}{r} 12 \\ +6 \\ \hline \end{array} \quad \mathbf{O}$$

$$\begin{array}{r} 5 \\ +4 \\ \hline \end{array} \quad \mathbf{R}$$

$$\begin{array}{r} 17 \\ +7 \\ \hline \end{array} \quad \mathbf{W}$$

$$\begin{array}{r} 21 \\ +10 \\ \hline \end{array} \quad \mathbf{L}$$

$$\begin{array}{r} 8 \\ +4 \\ \hline \end{array} \quad \mathbf{D}$$

11 7 15 31 23

16 18 3 3 18 17

16 7 17 12 10



Maple Spelling Words

Name _____

Say the word

Write the word

Use the word

- | | | |
|-----------|-------|--|
| 1. Maple | _____ | I love maple syrup on pancakes. |
| 2. Spoon | _____ | I use a spoon to put maple syrup on my ice cream. |
| 3. Steam | _____ | When maple syrup is cooking it makes a lot of steam . |
| 4. Tree | _____ | Maple syrup is made from sap that comes from the maple tree . |
| 5. Green | _____ | A sugar maple tree has green leaves in the spring and summer. |
| 6. Hike | _____ | It is great fun to hike through the sugarbush to watch sap running. |
| 7. Jug | _____ | Maple syrup is often sold in a brown plastic jug . |
| 8. Deer | _____ | Deer are a very common sight in the maple sugar bush. |
| 9. Sap | _____ | It takes about 40 gallons of sap to make one gallon of syrup. |
| 10. Leaf | _____ | A sugar maple leaf will usually turn yellow or orange in the fall. |
| 11. Drill | _____ | A power drill is used to make the tap hole about 2 inches deep. |
| 12. Pan | _____ | Sap is boiled in a syrup pan called an evaporator. |
| 13. Sugar | _____ | Maple sap is usually about 2% sugar , maple syrup is about 67%. |
| 14. Snow | _____ | Snow helps keep the sugar bush cool during the maple season. |
| 15. Bush | _____ | A sugar bush is a forest with maple trees used to make maple syrup. |



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www.agclassroom.org/ny





Maple Weather – When will the sap run? Name _____

Maple sap will flow from a taphole any time the temperature drops below freezing then warms up to above freezing again. Based on the high and low temperatures listed for each day, cross out the days when the sap did not run. To run the low temperature must be less than 32° F and the high above 32° F.

April 2013 Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Low 28° F High 30° F	2 Low 23° F High 31° F	3 Low 31° F High 40° F	4 Low 42° F High 50° F	5 Low 55° F High 61° F	6 Low 33° F High 38° F
7 Low 28° F High 31° F	8 Low 27° F High 36° F	9 Low 29° F High 39° F	10 Low 30° F High 44° F	11 Low 28° F High 45° F	12 Low 31° F High 50° F	13 Low 35° F High 56° F
14 Low 38° F High 50° F	15 Low 28° F High 58° F	16 Low 38° F High 41° F	17 Low 18° F High 30° F	18 Low 22° F High 31° F	19 Low 31° F High 39° F	20 Low 38° F High 57° F
21 Low 41° F High 49° F	22 Low 35° F High 57° F	23 Low 34° F High 50° F	24 Low 39° F High 60° F	25 Low 37° F High 52° F	26 Low 44° F High 49° F	27 Low 45° F High 53° F
28 Low 41° F High 68° F	29 Low 51° F High 71° F	30 Low 48° F High 74° F	How many days did the sap run? _____			

Each **spring** a **hole**, called a **tap**, is drilled in a maple **tree**.
When it **warms** up **after** a freeze, **sap** will **run** out of the
hole into a **pail** or a **tube** to be collected for making
maple syrup. Sap has **some sugar** in it but it is **not** very
sweet.

Unscramble the words below shown in bold above then use
The second column to put them in alphabetical order.

- | | |
|-----------------|-----------|
| 1. Meso _____ | 1. _____ |
| 2. Ton _____ | 2. _____ |
| 3. Etbu _____ | 3. _____ |
| 4. Ringps _____ | 4. _____ |
| 5. Lohe _____ | 5. _____ |
| 6. Rete _____ | 6. _____ |
| 7. Nur _____ | 7. _____ |
| 8. Rugas _____ | 8. _____ |
| 9. Apil _____ | 9. _____ |
| 10. Pat _____ | 10. _____ |
| 11. Pas _____ | 11. _____ |
| 12. Ewtes _____ | 12. _____ |
| 13. Rysup _____ | 13. _____ |
| 14. Mepal _____ | 14. _____ |
| 15. Swarm _____ | 15. _____ |

