

about the Sugar Camp Safari Program

at Bendix Woods County Park

Other questions? Call 574/654-3155

Where do we meet?

Glenn Bauer Shelter (follow park signs)

What will we do?

During an indoor presentation (about 30 minutes) the students will see a puppet show explaining how trees produce sap. They will also see a variety of equipment used throughout history to collect sap.

Following the indoor program you will have the chance to explore the sugar bush and visit the Sugar House. Along the way you will see signs explaining:

- how to identify a maple tree
- what conditions are necessary for sap to flow
- the various collection methods in operation

You will be given a Safari Bingo Sheet. As you walk to the Sugar House, have the students see how many items they can find!

Will we hang a sap bucket?

YES! The students will assist a park staff person or volunteer in tapping a tree and hanging a bucket. Each group will need to find their tree by matching a colored shape we give you with one hanging on a tree in the sugar bush.

Will we see syrup being cooked?

Sap only flows when the temperature is above freezing during the day and below freezing during the night. If the weather conditions have not been right, we may not be cooking in the Sugar House during your visit. However, there will be a park interpreter in the Sugar House to explain the cooking process.

Do I need to divide the students into groups?

Yes. For the outdoor portion, we recommend dividing into groups of ten students or less. Each group must have an adult leader to help the children with bingo and tapping.

How do I pay my program fee balance?

If you have a program fee balance due, please pay the receptionist at the Nature Center or one of the park interpreters at the Glenn Bauer Shelter (cash, personal check or school check) on the day of your program.

Lunch?

If you have arranged to eat lunch at the park, check your reservation form for the building where you have been assigned to eat. (Groups may be arriving before or after your program, so the Glenn Bauer Shelter may not be available for lunch.)



Sugar Camp Safari Pre-Visit Packet



The activities in your pre-visit packet have been designed to help you and your students prepare for your upcoming program at the St. Joseph County Parks. The information in this packet will help your students become familiar with maple trees and the process of making maple syrup from sap. Of course, if you do not have time to do the activities prior to your park visit, they will also work as a review for what the students learned during the program.

Build a Tree

Help your students learn the basic parts of a tree and review shapes by creating a group art project.

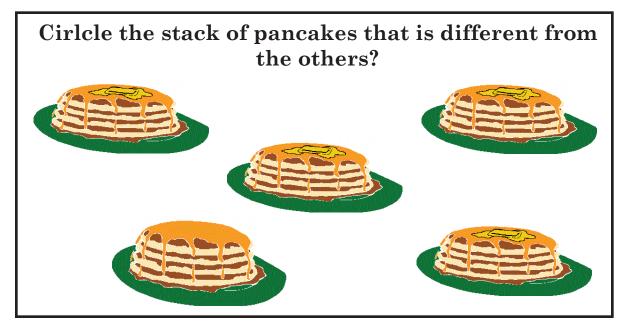
Supplies Needed:

- · Large piece of butcher paper or newsprint
- Flat sponges cut into the following shapes:
 - o Circles
 - o Squares
 - o Rectangles
 - o Triangles
 - o Diamonds
- · Tempera paints
- 1. Ask your students to help you name the parts of a tree:
 - trunk
 - flowers
 - fruit
 - · bark
 - · roots
 - branches
 - leaves
 - buds
- 2. On a large piece of paper, draw the outline of a tree shape.
- 3. Have small groups of students take turns filling in the outline, using the sponges to apply the paint. You may wish to provide some guidance as to which colors and shapes are used for what. Here are a few suggestions:
 - •Leaves (green diamonds)
 - Trunk, roots, bark and branches (brown or gray rectangles and squares)
 - Fruit (red circles)
 - Buds and flowers (yellow triangles)
- 4. Once the painting is dry, have the students point out and name the different parts of the tree. Ask them to name the different shapes and colors that they see.

Color the picture of a maple tree being tapped.



Which Stack of Pancakes is Different?





Miss Maple Goes to Hollywood: A Sap Flow Role Play

Introduce your students to the basics of sap flow and syrup making by helping them to act it out! Read the script below to them, and have them do the actions described in parentheses.

Are you ready to pretend and go on a crazy adventure? First of all, you're all going to have to shrink down very, very small, and become tiny water droplets. (Students crouch down as small as possible.)

You are way down underground, and it's winter. You are frozen solid! (Stay very, very still.)

But spring is on the way, and it starts to get a little bit warmer. (Students wiggle a little bit.)

You are melting, and all of a sudden a tree root slurps you up! (Make a slurping noise and stand up.)

Now you're inside a tree root! It's dark in here! The tree slurps you up into its trunk. (Repeat the slurping noise and all walk to one end of the room.)

Then the tree adds some sugar to you. Now you are sweet-tasting water, called sap! (Rub tummies.)

Wait a minute, I think I hear something! (Cup hands to ears.)

Someone is drilling a hole in this tree! Now they're hammering a hollow tube into the hole! Now all of you, the sap droplets, are sliding sideways out of the hole in the tree! (Walk sideways to the side of the room.)

One by one you slide out of the hole and plunk down into a bucket. (Students stand single file. One at a time they jump as far as they can.)

Now you're all in a bucket together. (Stand bunched together in a group.)

Someone's picking up the bucket! They're carrying it away! All the sap is splashing around in the bucket. (Students sway from side to side.)

The bucket is tipping...tipping... tipping. (Lean over to the side.)

And all the sap falls out into a big pan. (All fall down.)

Wow, it's really warm in this pan...the sap is starting to heat up. (Stand up.)

The sap is starting to boil. (Jump up and down slowly.)

It's getting hotter and the sap is boiling faster! (Jump up and down faster.)

Now the sap is starting to turn into maple syrup...it's getting thicker and thicker. (*Jump up and down more slowly*.)

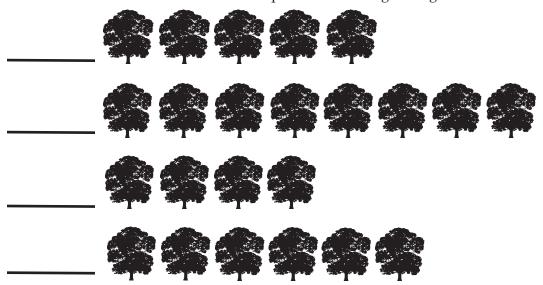
It's getting even thicker. (Jump up and down very slowly.)

Now you've turned into maple syrup...Quick, get back to the circle (or desks, or tables) before someone eats you up for breakfast!

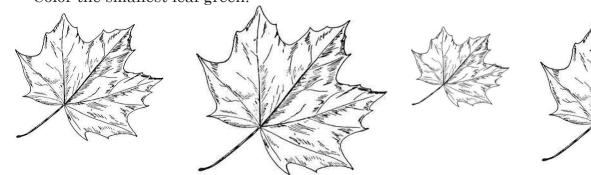
Maple Math

1. Count the number of maple trees in each row.

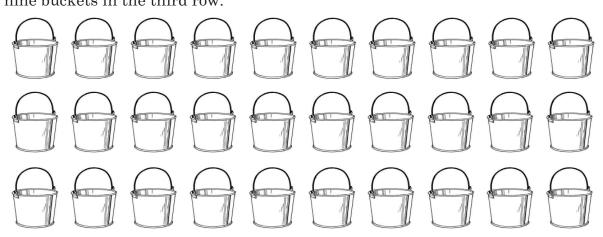
Write the numbers in the blank spaces at the beginning of each row.



2. Look at the maple leaves below. Color the biggest leaf yellow. Color the smallest leaf green.

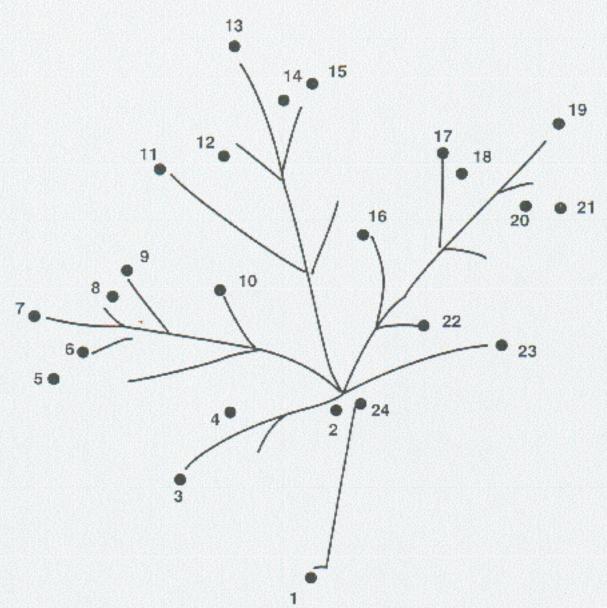


3. Look at the sap buckets.
Circle seven buckets in the first row.
Circle three buckets in the second row.
Circle nine buckets in the third row.





Connect the dots to make a Sugar Maple leaf



Compare this shape to your hand. How many fingers do you have on your hand? A Sugar Maple has five parts called lobes. Can you find five lobes on this leaf?

Sugarbush Sequence

The photos below show the process of making maple syrup. Have the students cut out the photos and glue them in the proper sequence from beginning to end on the sheet provided.















Sugarbush Sequence

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L.	Drill	a	hole	1n	a	maple	tree.

2. Hammer the spile into the tap hole.

- 3. Hang the bucket on the spile.
- 4. Place the lid on the bucket.
- 5. Collect the sap.