



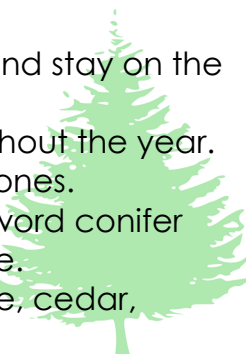
**GEORGIAN BAY
BIOSPHERE**
MNIDOO GAMII

One of the most visible components in the Georgian Bay Biosphere's (GBB) landscape is trees! The type of forest in the GBB is called a **mixed forest**. This means there are coniferous and deciduous trees.

English: Tree
French: Arbre
Ojibwe: Mitig

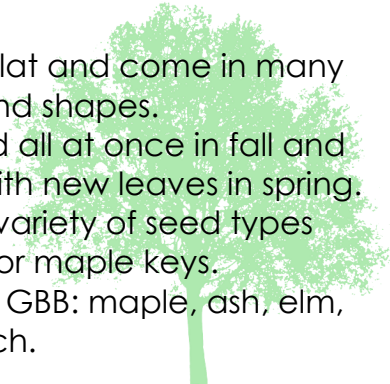
Coniferous Trees:

- The leaves are needles and stay on the tree year round.
- Needles are shed throughout the year.
- The seeds are found in cones.
- You can remember the word conifer because it starts like cone.
- Examples in the GBB: pine, cedar, spruce, and hemlock.



Deciduous Trees:

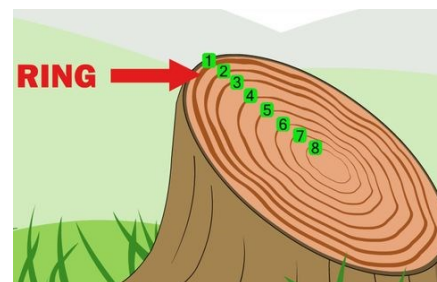
- The leaves are flat and come in many different sizes and shapes.
- Leaves are shed all at once in fall and are replaced with new leaves in spring.
- There is a wide variety of seed types such as acorns or maple keys.
- Examples in the GBB: maple, ash, elm, beech, and birch.



1. How Old Are You?

When trees grow, they get taller and they get wider. Each year, a thin layer of wood is added to the trunk and branches. These layers are called rings, and we can count them to tell the age of a tree.

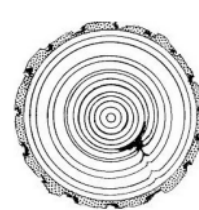
The width between each ring changes based on the amount of rain, sunlight, length of growing season, and nearby trees. Other things that can alter the look of tree rings are wind, injuries, disease, and branch loss.



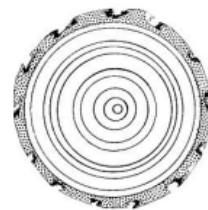
Look at the three tree cookies.
How old is each tree? What might have caused each one to look the way it does?



A



B

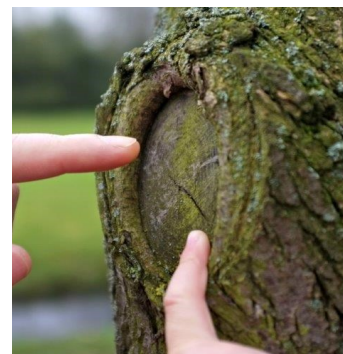


C

Aging a Tree: Do it yourself!

Find a recently fallen tree or branch. Have an adult help you cut out a cross-section or cookie, like the images above, from either the trunk or a branch. Carefully count the number of rings. Look for large or small gaps between the rings, or any patterns.

What year did this tree begin to grow? Do the rings all look alike? Try this activity with different trees and even different species. What is the oldest tree you can find?



Activity 1 Answers: A) About 15 years old. B) About 14 years old. C) 10 years old. Could be caused by years of drought, insect damage, construction damage, or shorter growing season. Tree is making an effort to grow upright again. The tree trunk eventually grew around the branch wound and covered it. A scar from a branch that fell off! The tree trunk eventually grew around the

2. Everyday Trees

Take a deep breath. The oxygen you inhaled was made by a tree. Trees use carbon dioxide and produce oxygen. People breathe in oxygen and exhale carbon dioxide. This is only one of the ways we use trees in our everyday lives. Most species of wildlife also use trees in different ways.

Can you think of examples for each of these uses? Record them in a journal or notebook!

Food

Medicine

Shelter

Warmth

Tools

Recreation

Did you know? People study tree growth rings to determine changes in local environment over time. This is called *Dendrochronology* (DEN-droh-kruh-NOL-uh-jee).

3. Meet a Tree

You will need a partner, a blindfold, and a forested area to play this game.

1. Start by having one partner wear the blindfold.
2. The un-blindfolded partner will then carefully guide them to a nearby tree.
3. When you both reach the tree, the blindfolded person will use their senses to make mental notes about what the tree looks like. No peeking!
4. Next their partner will carefully lead them back to the starting point.
5. When you are both back in the starting point, take off the blindfold and see if you can find the tree!



4. Measure a Tree's Height

You'll need a stick or ruler, and a measuring tape.

1. Find a straight stick or a ruler that is the same length as your arm from wrist to shoulder.
2. Hold it upright at the very bottom facing the tree.
3. Carefully walk backwards until it looks like the tree and the stick are the same length.
4. Now draw a line in the soil and measure from that line to the tree.
5. That distance is the same height of the tree, calculated by triangulation.



What is the tallest tree you can find by doing this?