

TIMBER!! LUMBERJACKS, LOGGERS & TREES



INTRODUCTION

Many years ago, lumberjacks cut down, or harvested, trees for large companies that turned the harvested trees (known as timber) into lumber. The companies then sold the lumber to build homes, furniture, crates and more.

Beginning in the 1890s, many lumberjacks lived in logging camps along the Gunflint Trail. They worked to harvest the area's large trees, especially white pine trees. The lumberjacks worked long, hard hours. At this time in history, it wasn't uncommon for lumberjacks in Minnesota to cut down enough trees in a single year to build 600,000 two-story homes!

Today, we call men and women who cut down trees for a living "loggers." Many loggers work on the Gunflint Trail. The trees they cut down are processed into wood products that we all use, like paper, furniture, firewood, even toilet paper.

WHAT'S IN THE LUMBERJACK ACTIVITY BIN:

- 3 Flannel shirts
- 3 Pairs of Suspenders
- 3 Pairs of Leather Gloves
- Minnesota Trees and Wildflowers Guide
- Tree Matching Game
- Measuring Tape
- Scratch Paper
- Pencils
- Tree Stick
- String

NOTES FOR LUMBERJACK ACTIVITIES:

- Just add kids to create 3 Lumberjacks (or Lumberjills).
- Complete activities inside the museum or outside on the grounds.
- Do as few or as many activities as you wish.
- An activity takes approximately 30-60 minutes.
- Do not remove bin from Chik-Wauk grounds.
- Check out the bin at museum front desk.



TOOLS & APPAREL

Today, loggers use machinery to help them harvest timber. But a hundred years ago, lumberjacks used hand tools, such as crosscut saws, hatchets, and axes to harvest even the largest of trees. It could be very dangerous to be a lumberjack and lumberjacks became well known for their strength.

Here are some of the things you might have owned if you were a lumberjack:

FLANNEL SHIRT: Today we think of lumberjacks as wearing plaid, flannel shirts, but lumberjacks probably wore any comfortable shirt as long as it was easy to move in.



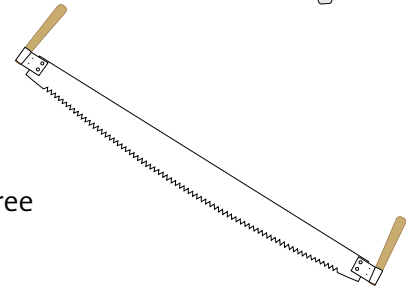
SPIKED/CAULK BOOTS: These tall leather boots kept lumberjacks from twisting their ankles when they walked on uneven ground. The boots' spikes helped hold the lumberjack steady when he rafted logs down the river to a sawmill.



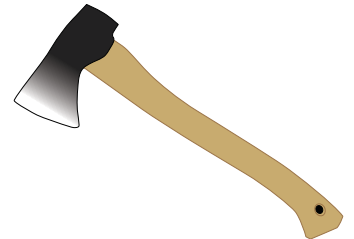
SUSPENDERS: An important clothing item that held lumberjacks' pants in place during their active work day.



CROSSCUT SAW: A long saw with two handles used by two men to cut down a tree or to cut a felled tree into smaller lengths.



AXE: A simple tool used to chop down trees or split firewood.



ACTIVITY

Inside the pack you'll find a couple items that lumberjacks would have worn every day. Pull them out and try them on.

TIMBER!

Lumberjacks and loggers don't just head out into the woods and cut down the first tree they see. They first have to learn to identify the different trees in the forest.

ACTIVITY

Play the tree matching game in the pack and learn about Gunflint Trail trees.

What is that tree used for?

Loggers consider each type of tree's unique qualities when choosing which tree to harvest. For example, if a lumber company wanted timber to build houses, loggers might decide to harvest a stand of pine trees. If the company wanted firewood, the loggers might harvest birch trees instead.

ASPEN: Pulpwood (for making paper), boxes, pallets, matches, playground equipment



RED PINE: Poles, cabin logs, lumber, railroad ties, posts



BALSAM FIR: Christmas trees and pulpwood



TAMARACK: Pulpwood



BIRCH: Firewood, toothpicks, furnitures, toy parts, tongue depressors



WHITE CEDAR: Shingles, poles, cabin logs, barrels



JACK PINE: Decking, utility (telephone and electricity) poles, pulpwood



WHITE PINE: Paneling, flooring, furniture, ship masts



HOW TALL IS THAT TREE?

Loggers need to know even more than how to identify trees and trees' uses when deciding to cut down a tree. Loggers also want to know the height of a tree so they can determine if there's enough room in the forest for the tree to fall without getting hung up in other trees or hurting anyone.

ACTIVITY

Head outside and find a stick that's the length of your arm. Find a tree that you want to measure the height of. You should look for a tree that's located on flat ground and that will be easy to walk up to.

Take the stick and hold it straight up at arm's length. While looking at the tree, walk straight backwards from the tree until the top of your stick lines up with the top of the tree. Stop and stand still. Have someone use the measuring tape in the pack to measure the distance from you to the tree in feet. Record that measurement on the scratch paper. Now have someone measure your height from the ground to your shoulder in feet. Record that measurement on the scratch paper. Add the two measurements together. That new number is an approximate measurement of the tree's height!

HOW MUCH LUMBER?

You can also tell how much lumber you'll get out of a tree simply by doing a few calculations. It's okay to ask for some help from an adult with this activity.

ACTIVITY

Take out a piece of scratch paper, the tree stick, and piece of string out of the pack.

STEP ONE: Measure how many 16 foot logs you'd get from the tree. At the top of the paper, write down the height of the tree you just measured. Now divide this number by 16 and write down that answer. It's okay if the number doesn't divide evenly; just write down how many times the number 16 fits completely inside the number of the tree's height. (For example, if the tree is 35 feet tall, just write down the number 2, not 2.1875)

STEP TWO: Determine the diameter of the tree. Take the string and wrap it all the way around the tree trunk and measure the circumference of the tree. Write down the circumference of the tree. Divide the circumference by 3.14 – a number that's called "pi." Write down the answer. This new number is the tree's diameter, or a measurement of how long the center of the tree is.

STEP THREE: Determine the board inches of the tree. Take out the tree stick. *Loggers and foresters use tree sticks as a kind of "cheat sheet" for calculations they commonly use.*

With the tree stick, find the line that matches with how many 16 foot logs you'd have from this tree. Then find the line that matches with the diameter of your tree. Using your finger, follow the 16 foot logs line until your finger tip is under the line for your tree's diameter. Lift your finger up. The number underneath your finger tip is the number of board feet in your tree. Write down this number.

What's a board feet? A board foot is a piece of wood that contains 144 cubic inches, commonly visualized as a piece of wood 12 inches square and 1 inch thick.

STEP FOUR: Determine how many boards are in your tree. Let's say you want to cut your tree into boards that are one inch thick, 12 inches wide and eight feet long. Just divide the number you got from the tree stick by eight and you'll know how many boards you could get from the tree. *What would you build with all of those boards?*

NEW TREES

We can harvest trees and use them to make things because trees are a sustainable resource.

That means when we can replace trees we cut down by planting more trees.

If we don't replace the trees that we harvest, we'll run out of wood to use.

Now when loggers cut down a tree, they plant a new tree to take the old tree's place.

Ask at the Chik-Wauk Museum front desk about the location of the Chik-Wauk tree planting area where you can see saplings of trees native to the Gunflint Trail. Visit the tree planting area and see if you can identify the kind of trees growing there. Think of the tree you just measured. In 30-40 years, these little trees could be as tall as that tree.

ACTIVITIES

Not ready to be done being a lumberjack just yet? Here are a few more activities for you!

- Count tree rings on the tree cookie in the front room.
- Watch the logging camp video in the Gunflint Trail Businesses Past and Present video kiosk.
- Take a hike on Chik-Wauk's nature trails and see how many trees you can identify.

WE HOPE YOU ENJOYED YOUR TIME AS A LUMBERJACK!

Please put everything you pulled out back into the bin and place the bin back where you found it so it's ready for next person. Thank you!