

# Natural Science in Nature: How the Medicine Walk Teaches us to See (with two eyes)

## Learning Objectives:

1. Learn about plants that are traditionally used for medicine or in ceremony
2. Learn how to create a plant press and press plants
3. Apply knowledge about plant identification learned in the introductory biology lab

## Introduction

In this lesson we will complete two activities: 1.) a medicine walk and 2.) press plants. Today, we will learn about some of their traditional uses. We will also learn about how plants can be dried and kept using a plant press. Before beginning, we will hear the story of how Mi'kmaq medicine was discovered.

From a scientific perspective, plants are usually identified using an identification key that shows different characteristics of the plant. This is used to help match the plant to its specific scientific names (the binomial name). Recall how you identified plants in the biology lab on day 1 using leaf shape, leaf arrangement, and flower cluster.

From an Indigenous perspective, plants may be identified using stories, or through their medicinal or ceremonial uses. Listen to the stories and ways that the Knowledge Keeper or Elder identifies plants.

The medicine walk allows us to use both perspectives to identify plants. Bringing the perspectives together can help us have a full understanding of the plant. During our medicine walk, we will use both perspectives to learn about and identify the plants.

## How Mi'kmaq Medicine was discovered

*“A long time ago, our people travelled and lived in groups, living here and there. It didn't take them long to set up a village. That was their way of life. They didn't know about fancy clothes or fancy food. They loved to eat corn which they grew and eels along with other fish. They were able to live off their land and water.*”

*One time in a nearby village, there lived a beautiful maiden who was the Chief's daughter. Not only was she beautiful, she was kind and respectful. The Mi'kmaq people were very proud of her.*

*As time went on, the people noticed that she was pregnant and so the elders of the village gathered around and asked her the father of the child she was carrying. She told them she didn't know any man. The people, along with her parents, were very angry with her and as they were very superstitious people, they believed that she was possessed by the devil and refused to have her around. They packed all their belongings and left her with only a few supplies in the Wigwam. It was mid-winter when the maiden was left alone to fend for herself.*

*Months later, two braves set out to get some wood for basket weaving material. One said to the other, "Let's go back to our old place where we left that girl a while back". The other brave agreed, so they set out. It took them some time to reach the old site as it was far.*

*When they reached their destination, the old wigwam still stood there. It was now spring, around May. They looked into the Wigwam and there laid a body of the once beautiful maiden and on its side was a little boy at his mother's breast. He was still getting milk from his dead mother's body. They said to each other, "Look at that little devil sucking milk from the body of that poor maiden he had killed. The maiden had been good and was so beautiful, let's bury her and we can take the boy and throw him off the cliff". After they buried the maiden, they took the boy to the mountain cliff and just when they were about to throw him down, the baby boy spoke to them and begged them to spare his life. He said, "I didn't come to this world for nothing, I was sent down by the Great Spirit to help the Micmac people. Your people are dying of sickness. I have come to show you the herbal medicines of your land. My mother was a virgin and, therefore, she is now happy. She was a true Saint and did not know a man". The braves became frightened., a child so small could talk.*

*The little boy showed them where to go to gather herbal medicine and when they put him on the ground, he started to name off some of the herbal roots." (1)*

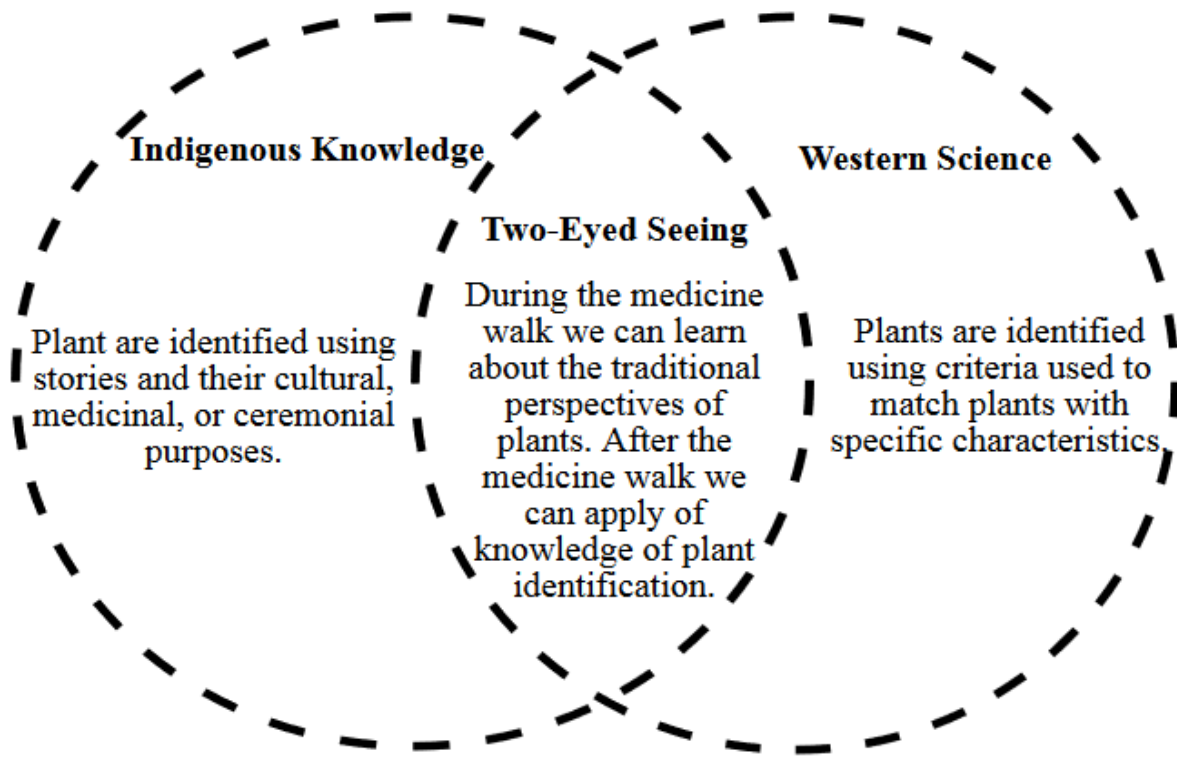


Figure 1. Two-Eyed Seeing Diagram

## Activity 1: Medicine Walk

For this activity, we will go on a medicine walk with an Elder or Knowledge Keeper to learn about plants. With the permission of the Knowledge Keeper or Elder, you will collect three to four plants. Later, you will use the table below to record the scientific and Indigenous perspectives for identifying the plants you collected. You will also create a plant press to preserve the plants you collected.

What we will need for our activity:

- One paper bag
- One pen or pencil
- This manual

What we will do, step by step:

Step 1: Prepare for the walk

Following the instruction of the camp counsellors and Knowledge Keeper or Elder, prepare for the medicine walk.

Step 2: Go on a medicine walk and collect plants

During the medicine walk, listen carefully to the Elder or Knowledge Keeper about the Mi'kmaq perspective on plants.

With **permission** from the Elder or Knowledge Keeper, collect three to four plants and keep them in your paper bag for later.

Step 3: Answer the questions below about the plants you collect

Use the questions to record information about the plant you collected. This information will help you in the next activity. Record this during the medicine walk.

**Plant 1**

Name of the Plant Collected: \_\_\_\_\_

1. What is the plant used for?

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2. What is something interesting you learned about this plant?

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**Plant 2**

Name of the Plant Collected: \_\_\_\_\_

1. What is the plant used for?

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2. What is something interesting you learned about this plant?

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**Plant 3**

Name of the Plant Collected: \_\_\_\_\_

1. What is the plant used for?

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2. What is something interesting you learned about this plant?

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**Plant 4**

Name of the Plant Collected: \_\_\_\_\_

1. What is the plant used for?

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2. What is something interesting you learned about this plant?

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## Activity 2: Using Two-Eyed Seeing to Identify Plants

What you will need for our activity:

- Your notes from the medicine walk
- The Plant Identification chart from the Introduction to Botany activity
- A pen or pencil

What you will do, step by step:

Step 1: Recording information about the plants we collected

Follow the directions below and review with the camp counsellor.

- a) After the medicine walk, use the table on the next page to record the Mi'kmaw name, and the translation of the plant you collected. Ask the Elder or Knowledge Keeper for guidance. If there is no Mi'kmaq name, or it is not known, record the English name.
- b) Record the Mi'kmaq perspective used to identify the plants in table 1. Use the notes you took during the walk to help you.
- c) Record the scientific perspective used to identify the plants in table 1. Use the identification chart to match the leaf arrangement, leaf shape, and flower cluster. Use the knowledge you learned on day 1 in the biology lab to help you.

Table 1: Identifying Plants Using Two-Eyed Seeing

| <b>Name of Plant Collected</b> | <b>Mi'kmaq Perspective</b> | <b>Scientific Perspective</b> |
|--------------------------------|----------------------------|-------------------------------|
|                                |                            |                               |
|                                |                            |                               |
|                                |                            |                               |
|                                |                            |                               |



## Activity 3: Pressing the Plants

### Introduction

A plant press can be used to preserve plants by drying and flattening them. Scientists may press their plants so they can be easily written on. Often, they have written information with them. In Mi'kmaq culture, plants have been dried and preserved to be used for medicines or ceremony. In this activity you will press the plants you collected on the medicine walk. Table 1 will help you record important information about them when they are dried.

What you will need for our activity:

- Two wood boards of equal size (between 4"x4" and 18"x18")
- One large or two to three small cardboard boxes
- One box cutter
- One pair of Scissors
- 10 to 15 pieces of Newspaper
- One package of blotter paper or watercolor paper (printer paper can also be used as an alternative)
- Two clamp closure Belts
- One pencil or pen

What you will do, step by step:

Step 1: Trace the shape of your wooden boards on materials

- a) Use a pencil to trace the shape of your wood boards four times onto the cardboard. Cut out four pieces using the box cutter. The cardboard will allow air flow to the plants being pressed, helping them dry so they can be preserved.
- b) Trace the same shape on a stack of three to five pieces of newspaper and cut with the scissors. The newspaper will help to absorb moisture from the plants. Blotter paper can also be used instead.

Step 2: Prepare your plants

Place your plants on the blotter paper or water color paper. Space the plants so that they are not touching. You may be able to fit one large plant, or multiple smaller plants on the paper.

### Step 3: Press your plants

Stack the wood, cardboard, newspaper, and paper with plants in the order shown in figure 1 on the next page. Wrap the belts around the stack. Tighten the belt until it cannot get any tighter.

### Step 4: Leave the press for the plants to dry

Store the plant press in a dry place for 1 month before opening. Check on the belts to make sure they have not loosened. After 1 month, open the plant press and store your pressed plants in a safe place such as a folder. Keep the information that you recorded about each plant with them.

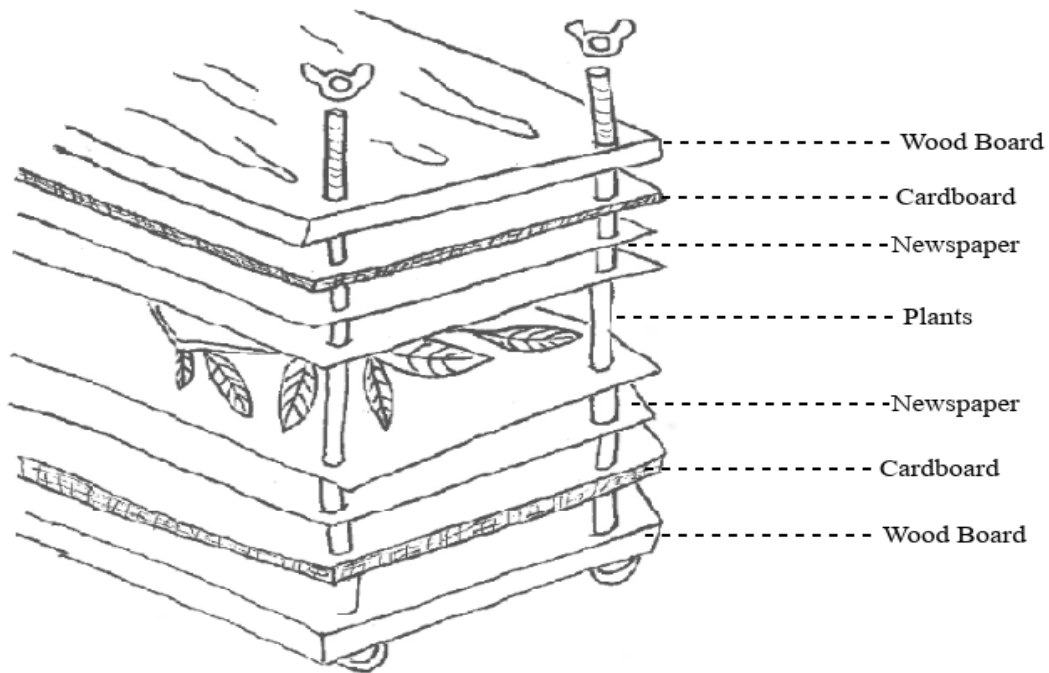


Figure 2. Plant Press (2)

## Contributor and Reference List

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All unreferenced stories, Mi'kmaq words, or Indigenous knowledge was provided by the Elders/Knowledge Keepers listed above.

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### References

1. Jeddore J. How Indian Medicine was Discovered. 1973

2. How to Press and Preserve Plants: AMNH [Internet]. American Museum of Natural History. [cited 2019Jul1]. Available from: <https://www.amnh.org/learn-teach/curriculum-collections/biodiversity-counts/plant-identification/how-to-press-and-preserve-plants>