

Teacher Guide
Leaf Rubbing
13 Moons Unit (Science and Art)

Lesson #12

Moon 11: Penibagos (Falling Leaf Moon)

Intended Grade Level: 1/2

Preparation for the Activity:

For this activity, students may either participate in the preparation or a teacher can gather materials in preparation depending on time and demand. Leaves can be gathered with a minimum of one leaf per student. This activity allows students to explore leaves and the association these leaves have with Indigenous or non-Indigenous types of trees in their region.

Teacher's Note: This lesson is focused on New England Indigenous trees specifically; however, if taught outside of the region this lesson can be adapted to your geographic location and its specific Indigenous species.

Focus Questions:

1. What are the different characteristics of leaves?
2. What is one example of an Indigenous tree in your area? One that is not?
 - a. See attached list of several New England Indigenous tree species
3. What are the ways we can identify what trees our leaves come from?

Lesson Affordances:

1. Students will be able to correctly identify the tree from where their leaf has come and one characteristic/fact of that tree.
2. Students will be able to give *at least* one example of an Indigenous and a non-Indigenous tree.
3. Students will be able to use their knowledge of shapes, colors and sizing to categorize their leaf.
4. Students will be able to use fine motor grasp and follow explicit steps to create their artistic leaf rubbing.

Duration: 25-30 minutes

Materials Needed:

- Diverse collection of leaves, at least 1 leaf per student (good examples are sugar maple, white oak, hemlock, white pine needles, birch, sumac leaves etc...)
- Paper
- Crayons or colored pencils
- Northeast Woodland Leaf Diagram (*see attached pdf)

Process:

This activity will begin by having students gather in a group for directions and explanations. The instructor will present the leaf guide in front of the class and identify the different characteristics within the leaf guide. For example, the instructor will identify that the maple leaf has pointed tips and is red but

the white birch leaf has only one pointed end and is usually green or yellow. Following this explanation, the teacher will list out the three ways students will classify or characterize their leaves; color, shape, size. During this time the teacher will also explain how some trees are Indigenous, meaning they come from this area, and others have moved to this area. A parallel can be made with how some students have always lived in the same town and others have moved from town to town.

After this explanation, the teacher will model the steps for leave rubbing. The teacher will model the following steps;

- Take one leaf and place it under your white piece of paper
- Pick a color of crayon, colored pencil, charcoal (if accessible)
 - *If using a crayon, it is a good idea to take the paper off the crayon and use it horizontally to create the leaf rubbing
- Take your coloring utensil and start shading the area of paper on top of your leaf
- You should be pressing hard enough so that you start to see the outline of your leaf on your paper

After modeling the leaf rubbing activity, allow students to choose their leave to identify, to rub and then have the students return to their desks to complete the activity. This is an independent activity, however, students may discuss and share their leaves and trees throughout their identification and creative processes. It should also be emphasized that some trees are Indigenous to a region while others are not. At this point students should be comfortable with the word “Indigenous” but be sure to redefine the term as: *being native or originally from a certain place or area*. Use the handout, “Northeast Woodland Leaf Diagram” to provide a list and images of leaves belonging to Indigenous trees of New England.

On their leaf rubbings, students should include the type of leaf they have and a fact or characteristic of either the leaf or the tree it came from. Once finished, the leaf rubbings can be displayed and/or shared.

Teacher Rationale:

This activity incorporates Indigenous knowledge into a science content area by addressing various types of physical and plant-life features of a specific region. This activity is specifically science focused and includes Indigenous knowledge specifically related to the identification of the trees native to the New England area.

Standards Met Through this Activity:

ELA Common Core State Standards:

1. CCSS.ELA-LITERACY.W. 1.7: Participate in shared research and writing projects
2. CCSS.ELA-LITERACY.RI.1.10: With prompting and support, read informational texts appropriately complex for Grade 1.

NextGen Science Standards:

1. LS1.A: Structure and Function: Plants have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow

C3 Framework:

1. D2.Geo.6.K-2: Identify some cultural and environmental characteristics of specific places.
2. D.1.3.K-2: Identify facts and concepts associated with a supporting question.

Additional Resources and Possible Extensions:

1. Indigenous New Hampshire Collaborative Collective's website with various blog posts, educational resources, geographical and archaeological information using New Hampshire Indigenous knowledge.
 - a. www.indigenousoh.org
2. An online resource produced by the Arbor Foundation that practices regional tree identification in an online format
 - a. <https://www.arborday.org/trees/whattree/>

Supporting Materials for this Lesson

1. <https://hubbardbrook.org/sites/default/files/includefiles/education/supporting-PLT-activitieslinked.pdf> (see leaf key in Appendix A)
 - a. Includes the leaf key for identification of New Hampshire Trees and other lesson plans and resources if further exploration and extension is desired
2. Northeast Woodland Leaf Diagram is attached as a pdf. under the link for lesson plan #12

