

Tree Identification – Leaf Rubbing - Concrete Poem

Dave Brigham (brigham@msu.edu)

October 17, 2024

Objectives:

1. Use a dichotomous key to identify trees.
Possibly practice the **Look at Michigan Leaves** lesson from ABNL.
2. Develop botanical vocabulary.
3. Do a leaf rubbing of the leaf you identified
3. Make a concrete poem using vocabulary learned.

Materials:

1. Paper/pencil for each student
2. Clipboard for each student
3. Tree Finder (dichotomous key from ABNL) for each pair

Procedure:

1. Pair up students (done prior to lesson).
2. Choose a leaf from the selection with your partner (5 min).
3. Identify the leaf using a dichotomous key (10 min).

Vocabulary: alternate; opposite; simple/compound leaf; leaflet; margins (edges); serrated (saw-like); lobed (finger-like); vein

Alternate Leaves



Aspen/Poplar – Bigtooth, Quacking, Cottonwood, Tulip

Basswood, Beech, Birch – white, river, yellow

Cherry – black, choke

Elm – American, slippery, rock
Hackberry

Hickory – Shagbark, Pignut, Bitternut
Ironwood, Muscledwood (blue beech)

Oak – Red, White, Chinkapin, Black, Burr

Sassafras, Sumac, **Walnut**

Willow

Mulberry

Opposite Leaves



Alder

Ash – white, green

Catalpa, Dogwood, Elder

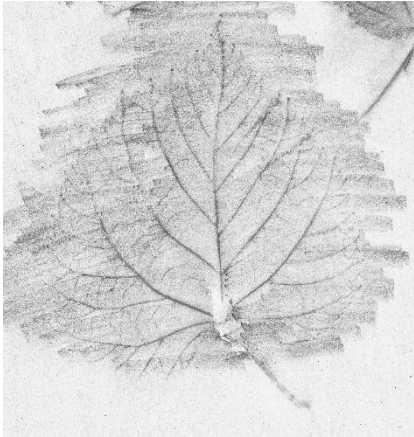
Horse chestnut

Maple – Red, Sugar, Silver

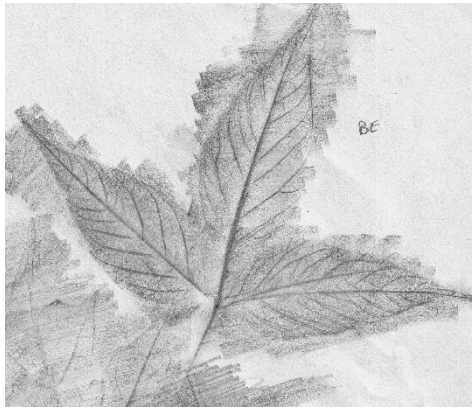
Instructor will circulate to make sure the leaves are correctly identified.

4. Do a leaf rubbing (put your name, leaf name and Latin name on your sheet).

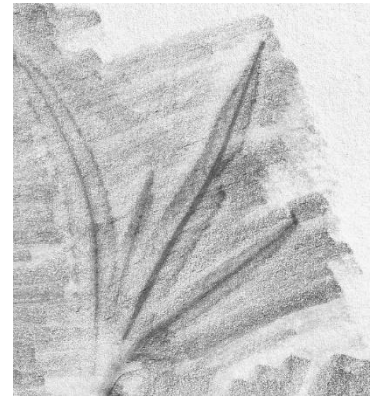
- a) Place your leaf face-up under a sheet of paper
- b) Hold it down with the paper so it won't move (maybe even tape it)
- c) Using the SIDE of your sharp pencil, rub over the leaf to create an impression on the leaf edges and veins.



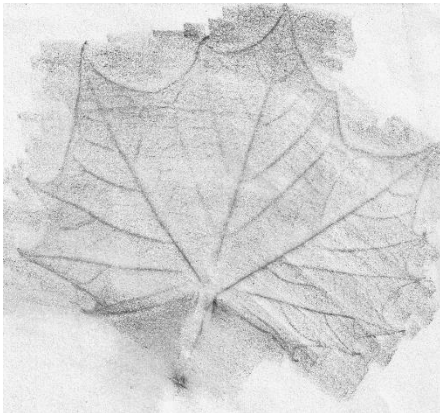
Basswood (simple leaf, toothed edges)



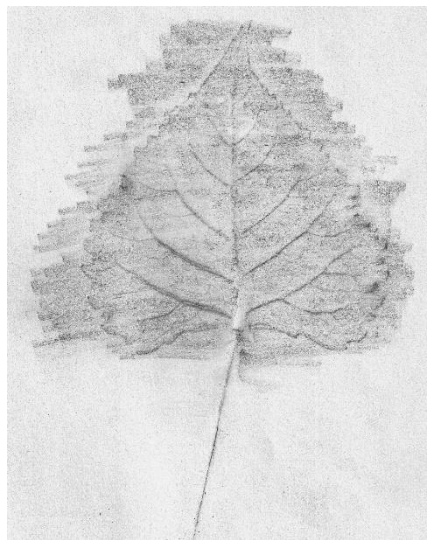
Box Elder (compound leaf, entire or smooth edges)



Willow (simple leaf, fine toothed edges)



Sycamore (simple leaf, lobed with entire or smooth edges)



Cottonwood (simple, toothed edges)



Red oak (simple, lobed with entire or smooth edges)

5. Make a concrete poem using a drawing of your leaf or the leaf rubbing outline itself.

Possible vocabulary: Include the common and Latin name of the tree. Other suggestions are: oxygen, carbon dioxide, leaf, leaflet, photosynthesis, chlorophyll, sunlight, simple, compound, phloem, xylem, cambium, heartwood, stoma (mouth-like opening on leaves for them to 'breathe'), alternate, opposite, deciduous, producer, energy, vein, uses of the tree or what the wood is used for.

Concrete poetry takes a concept, idea or subject that we can conceivably draw and incorporates characteristic words (nouns, adjectives, verbs, adverbs or phrases) into an art activity. It uses science vocabulary (or from any other curriculum piece) while engaging the learner in a creative activity that can be started during observation time and completed back at school or home. Here are potential steps to create one:

- Determine a subject
- Generate a list of characteristics for that subject
- Lightly draw a representation of that subject
- Use the list of characteristics to fill in the representation – exaggeration of the letters is valuable
- Refine and colorize as needed – maybe even back at school or home

6. Debrief

