

## TREE / LEAF IDENTIFICATION

Today let's turn our attention to trees and their leaves. We'll be focusing on leaves, but feel free to explore all of the different aspects of trees such as height, shape, bark, branches, and roots. You'll find some tips for further investigation on the last page of this worksheet.



### *Why focus on leaves?*

- Sketching a leaf in a nature journal allows you to document your discoveries, enhance your observations of the unique details of a leaf's shape, and reinforce your ability to recognize and identify familiar leaves in your area.
- Looking closely at a leaf can help you identify what kind of tree or plant it came from.

Here are some tips for observing and sketching leaves:

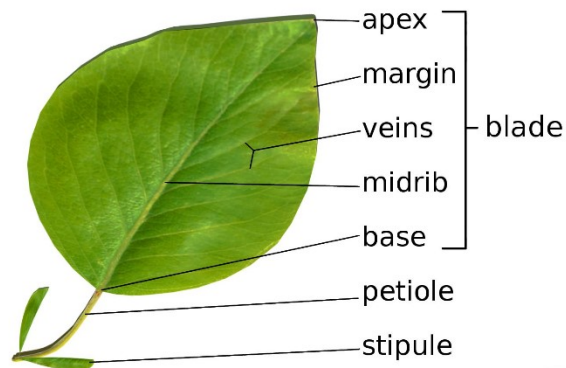
- **Look Up!** When investigating leaves in a particular place, start by looking up and observing as many different types of leaves as you can see on the branches of the living trees or plants they come from.
- **Look Down!** Next, look down to see if you can find any of the leaves you saw above or any other unique leaves on the ground. This is a great way to find specimens for further investigation without harming a plant.
- **Look up close!** With even the simplest magnifying lens you can observe lots of things about leaves that you can't see clearly with eyes alone.

Let's head outside and find some leaves. You'll need your journal and a pencil.

**Step 1.** Gather a few fallen leaves, spread them out, and look closely.

**Step 2.** Sketch your leaves in your journal. If easier, go ahead and put the leaves directly onto the page and trace them. If you like, you can paste your leaves in your journal next to your sketches. Or, you can put them aside for leaf rubbing or plant pressing (more on those later!).

**Step 3.** Now let's learn about the basic parts of a leaf. For our purposes, the leaves we are investigating are from **deciduous** trees (they drop their leaves annually). They are **broadleaves**, meaning they are flat and have relatively large surface. Here is a list of leaf parts and a diagram to illustrate where on a leaf they are found.



Basic Leaf Anatomy of Flowering Plants. Image by Evelyn Bailey.  
Source: <https://www.thoughtco.com/plant-leaves-and-leaf-anatomy-373618>

**Lamina** - the “blade,” or main part of the leaf. Attached to a branch by the petiole.

**Petiole** - the long, rigid “stem” of the leaf that connects the lamina to the branch. There is usually a bud just above where the petiole connects to a branch.

**Margin** - the edge of the lamina. Margins can be smooth or toothed, wrinkled or flat.

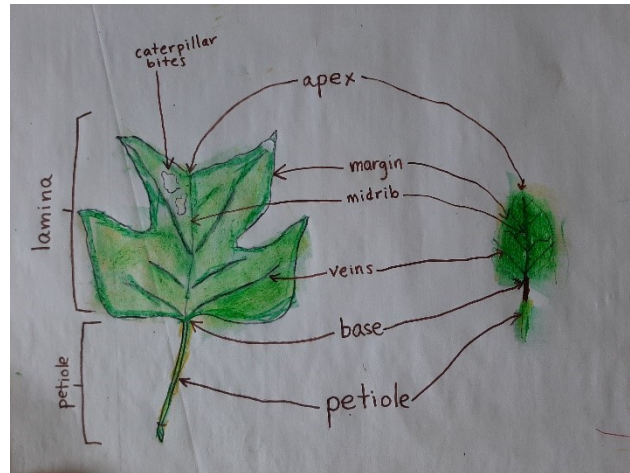
**Midrib** - the central vein in the lamina, beginning at the base where the petiole meets the lamina and extending through the middle to the apex.

**Base** - where the blade meets the petiole at the bottom of the lamina. The base of a leaf may be straight, curved, angular, or asymmetrical.

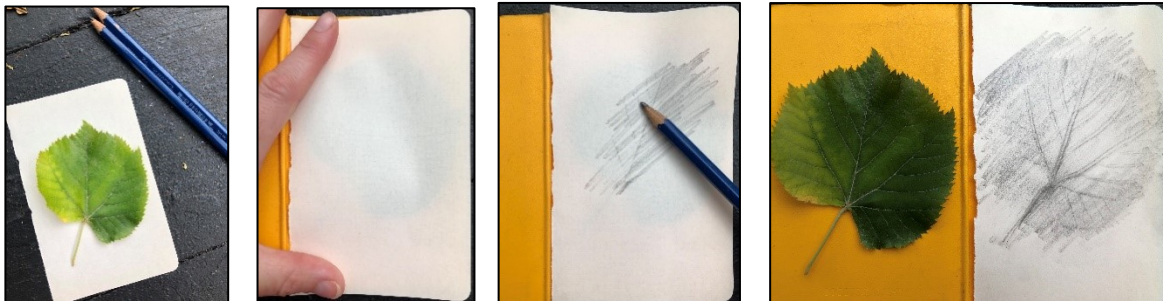
**Apex** - the “tip” of a leaf, where the midrib ends

**Step 4.**

Can identify each part of the leaves that you collected earlier? In your journal, indicate each of these parts next to your drawings, as shown here. Add color or texture to your leaf drawing—you can use colored pencils, crayons, markers, pens, colored paper, fabric, or even part of a leaf itself.

**Step 5. Make a leaf rubbing**

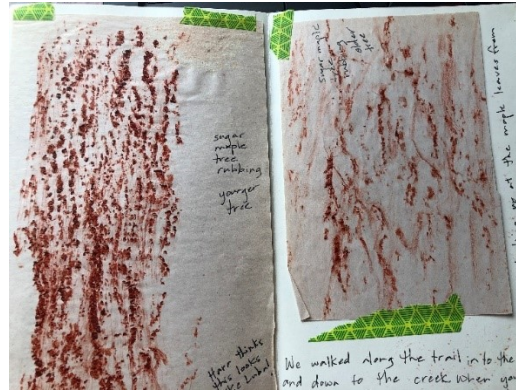
Take a piece of newsprint or computer paper and place it on top of your leaf. Try to use a piece of paper that is thinner than the paper in your sketchbook. The thinner paper allows you to capture more detail. Hold the sheet of paper with one hand and a crayon or pencil in your other hand. Begin rubbing your pencil or crayon at an angle across the paper.

**Step 6. Make a leaf press**

You can press leaf samples by gathering them, placing them inside a large book or simple leaf press, placing weight on top, and leaving them for a few days to flatten and dry out. This is a good way to preserve leaf samples for decoration, art projects, or further investigation. Watch a video that Rebecca made on making your own plant press [here!](#)

### Keep Going!

Make a rubbing of the bark of a tree by following the steps for leaf rubbing above. Learn more about tree bark [here](#).



Investigate the shapes of nearby trees. Tree shapes are determined by the shape of their **canopies**. A tree canopy is the layer of leaves and branches that cover the ground when viewed from above.

For more information on using leaves to identify trees, click [here](#) or use the [online guide](#) put together by the Arbor Day Foundation.

If you live in the Hudson Valley or you are interested in some of the trees and leaves found in this area, check out [these materials](#) from our friends at the Black Rock Forest Consortium.

Key vocabulary words:

**Deciduous**

**Broad leaf**

**Lamina**

**Petiole**

**Margin**

**Midrib**

**Base**

**Apex**

**Canopy**