Collecting Leaves: Botany Collecting Guide

Adapted from *Behold and See 5* by David Beresford, Ph.D. & *Life Science* by Michael J. Spear, M.S.

Supply List

- 10 different leaves from trees or shrubs (1–2 for each specimen)
- small notebook
- pencil
- sheets of newspaper
- several sheets of corrugated cardboard
- several large, heavy books OR boards and rope or straps
- standard field guide to trees
 AND/OR a leaf identification app
- stiff pieces of paper
- clear-drying glue



Collecting

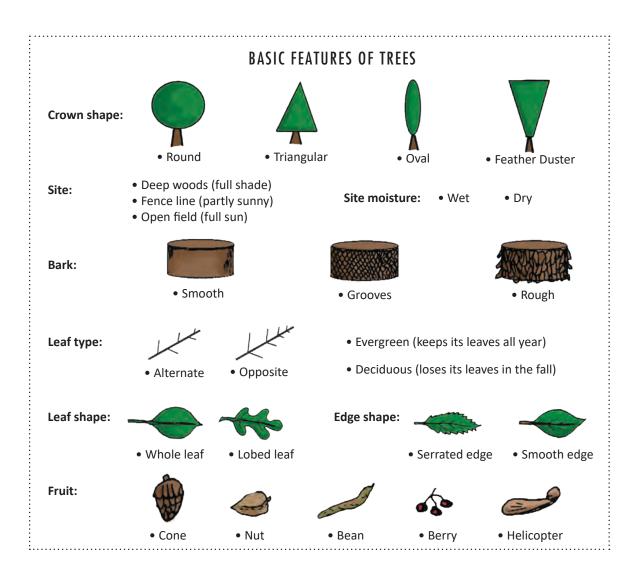
Collect a minimum of 10 different leaves. For each specimen, look for one or two medium-sized leaves. Never take more than two or three leaves from any one branch. Be sure to ask permission before collecting from an ornamental tree or shrub in someone's yard!

Important: Do not collect poison ivy, poison oak, or poison sumac.



Recording

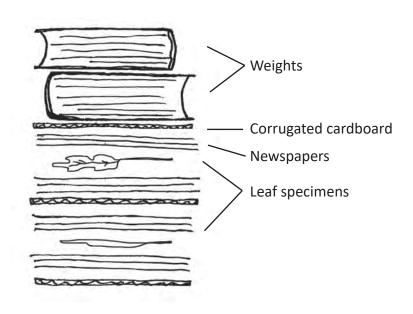
Carry a small notebook and pencil with you when you go collecting. When you find a specimen, note the date, time of day, location, type of habitat (field, ditch, lawn, woods), and key features of the tree or shrub (shape, bark texture, leaf shape, leaf spacing on branch, site, and type of fruit). Refer to the chart on the following page for the basic features of trees. This information will help you identify the leaf later on.



Pressing

Place each leaf between two sheets of newspaper along with the information you recorded in your notebook. That way you won't get confused about which notes go with which leaf.

Do not allow the leaves to overlap in the newspaper. Add several layers of newspaper between the sheets with leaves in them. Alternate layers with corrugated cardboard.



Weight down the stack of newspapers with several large, heavy books. Or, tie the bundle between boards with a rope or strap and tighten as needed.

Place the stack in a dry, warm place. The drying process will take about a week if done indoors. Once the leaves are dry, remember that they will be fragile and may crumble.

Identifying

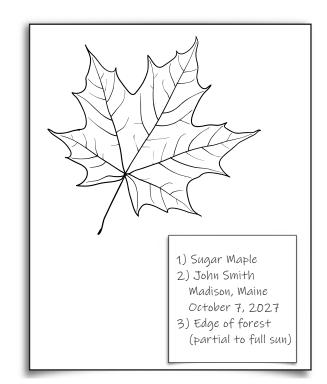
Identify each of the leaves in your collection, using a standard field guide to trees along with the information you recorded when you collected the leaves. It's also acceptable to use a leaf identification app. Cut out a 10 cm x 10 cm label for each leaf.

On each label, write:

- 1. Name of the tree or shrub
- Collecting data: your name, place, and date—this information is the most important. Anyone can figure out what the plant is, even if you get its name wrong, but only you can provide the collecting information.
- 3. Habitat where the leaf was found

Mounting

Mount the leaves and labels onto stiff pieces of paper using clear-drying glue. To do this, spread a



thin layer of glue over every part of the back of each specimen and place it carefully on a stiff piece of paper. Be sure no excess glue is on the edges or coming through the leaf.

Glue the label near the leaf. Put a sheet of newspaper over the leaf and label, then put them under a heavy book. Immediately lift the book and paper to check for excess glue. If found, clean it up, and use a new sheet of newspaper. Put the book back on top, and allow the glue to dry. Store your collection in a **dry** place.

Image credits: leaves- aarrows/Shutterstock.com; poison ivy- pancaketom/iStock.com; poison oak- tomferrisoc/iStock.com; poison sumac- Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database/public domain; Basic Features of Trees chart- Michael J. Spear; diagram- CHC

Behold and See Science



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The Behold and See series, for kindergarten to eighth grade, is distinguished by an emphasis on conceptual understanding rather than just memorization of facts. Straight-forward explanations allow students to master concepts as simply and easily as possible, while the series' hands-on approach allows students to actually do science instead of just reading about it.

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