



Lesson Prep

- ✓ Identify the species of a few trees in the schoolyard.
- ✓ Determine which field guides students will be using and familiarize yourself with them.
- ✓ Make copies of the nature journaling prompt for students if preferred.
- ✓ Preview the video on leaves.



Vocabulary

Leaf, photosynthesis

Procedure Part 1:



Independent Work

- Take your class outside for students to **observe leaves**.
- Students will describe, draw, compare, and contrast leaves in their nature journals.
- Instruct students to **observe leaves** where they find them, whether on the ground or on a plant. Students do not need to remove the leaf from the plant for this assignment.
- **Nature Journaling Prompt:** 
 - **Describe** your leaf. What does it look like? What does it feel like? What shape is it? What does the edge of the leaf look like?
 - **Sketch** your leaf. Be sure to include the veins of the leaf. Are the veins parallel? Do they radiate out from a central point?
- Have students choose a second leaf to compare to their first leaf. At least one of their 2 leaves needs to be a leaf from a tree.
- **Nature Journaling Prompt:** 
 - How are the leaves **different**? List at least **3** differences.
 - How are the leaves the **same**? List at least **2** ways the leaves are the same.
 - What is the **function** of a leaf?
- Nature journaling prompts are on a separate page at the end of this lesson to allow you to print them out for students if preferred.

Mini-Lesson

- Discuss the leaves students examined, and the function of leaves.
- Bring a few leaves inside with you to use during your discussion, or you can use pictures such as the ones at the end of this lesson.
- Show a video on photosynthesis to connect back to the function of leaves - "[Photosynthesis](#)" by *They Might Be Giants* (1:58).

Learning Objectives:

Observe how leaves from different plants compare.

Nutshell/Skill:

Students can describe and identify leaves.

Science Essential Standards:

3.L.2.1

ELA Essential Standards:

RI.3.5

Time:

Part 1: 30 minutes

Part 2: 30 minutes

Teacher Materials:

- [Video on photosynthesis](#) by *They Might Be Giants*

Student Materials:

- Tree field guides
- Nature Journals
- Private Eyes (or other magnifiers)
- Colored pencils

Procedure Part 2:



Independent Group Work

- Have students go outdoors to look at leaves to **identify** the species of a tree. They can use books or online field guides, such as:
 - *Common Forest Trees of North Carolina* from the North Carolina Forest Service
 - [“What Tree is That?”](#) online tree identification guide from the Arbor Day Foundation
- **Before** going outside, introduce the tree identification guides you will be using and how to use them. If using books, show them how the trees are grouped. Show them the table of contents and the index.
- Choose trees for students to investigate that you have previously identified.
- Some common trees you may find on your school grounds are:
 - Black Oak
 - Flowering Dogwood
 - Redbud
 - Red Maple
 - River Birch
 - Southern Magnolia
 - Sourwood
 - Sweetgum
 - Sycamore
 - Tuliptree (Yellow Poplar)
 - White Oak
 - Willow Oak
- Give students a short list of possible trees, including the correct one, for them to look up.
- Have students work in groups of 3-5 people.
- Assign a group per tree.
- Rotate between groups to assist with identifying the trees.
- Once students have identified the trees, have each group **share** their tree’s identity and where they found the information. Also, have students share a fact they learned about their tree.

Assessment

- **Exit ticket:** What is the function of a leaf?

Opportunities for Extended Learning

1. To go more in-depth on leaves, watch Mystery Doug’s video on [“Why do leaves change color in the fall?”](#) (5:25).

Behavior Management Tips

- ◆ Before going outside, have a brief discussion about how to behave respectfully toward plants and nature. In particular, discuss how they can observe leaves without removing them from the plants or otherwise hurting the plants. Ask students for their ideas.
- ◆ For the nature journaling prompts, emphasis that students are honing their observation skills and should be looking at the details. Give them a timeframe of how long they will be working on each prompt. Announcing how much time they have left can help clarify that expectation.
- ◆ Set expectations of interaction and talking amongst each other for nature journaling. For example, tell students to stay silent and focused on their own leaves as well as that they will be given a chance to discuss the leaves later.
- ◆ To help students stay focused, make identifying the trees into a challenge. For instance, you could have a time limit or a challenge to be the first to correctly id their tree.

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Leaves Nature Journaling Prompt 2:

- How are the leaves **different**? List at least **3** differences.
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