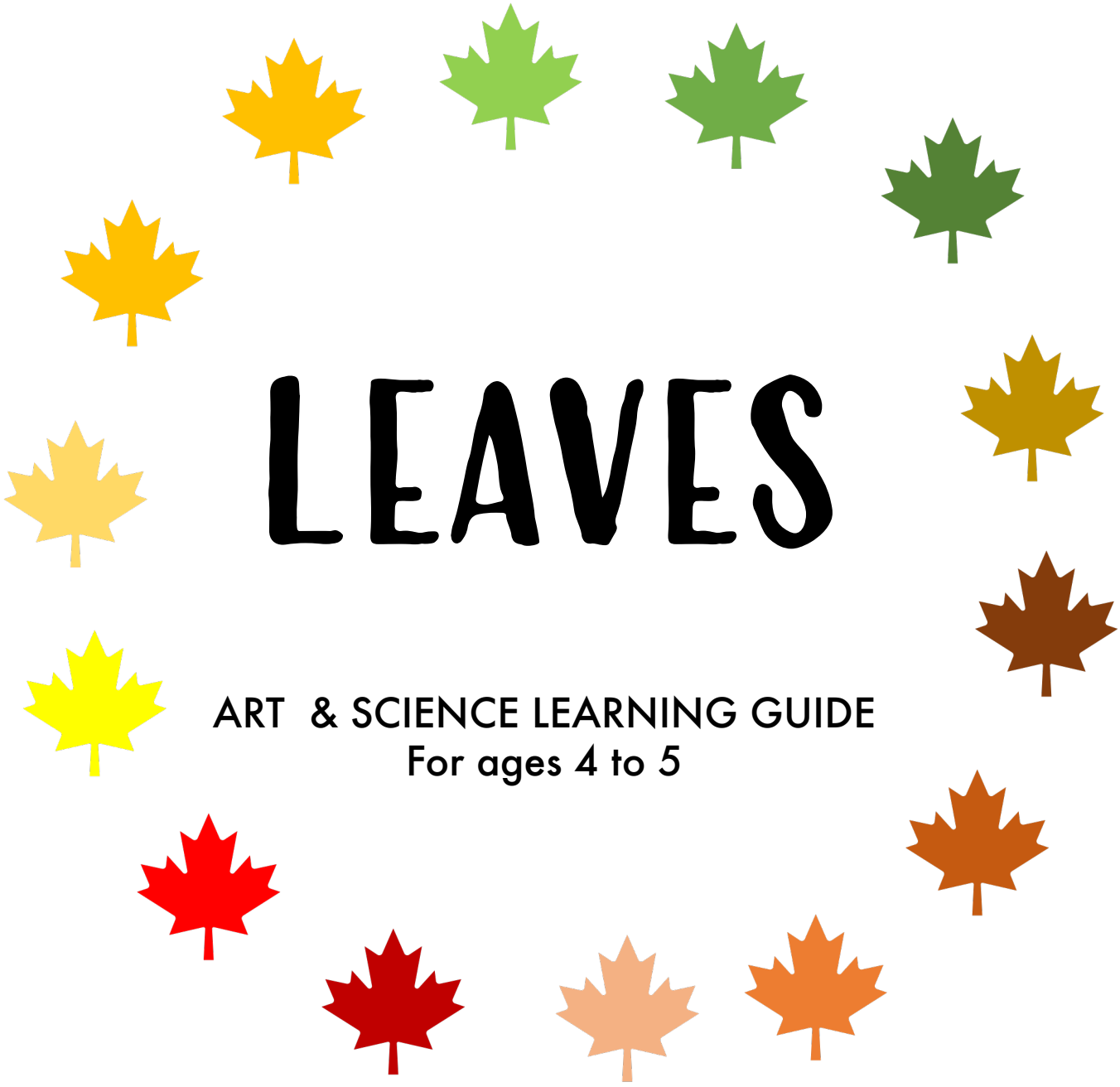
BOTANY 4 TOTS



LEAVES

ART & SCIENCE LEARNING GUIDE
For ages 4 to 5

Fall 2021

LEAVES

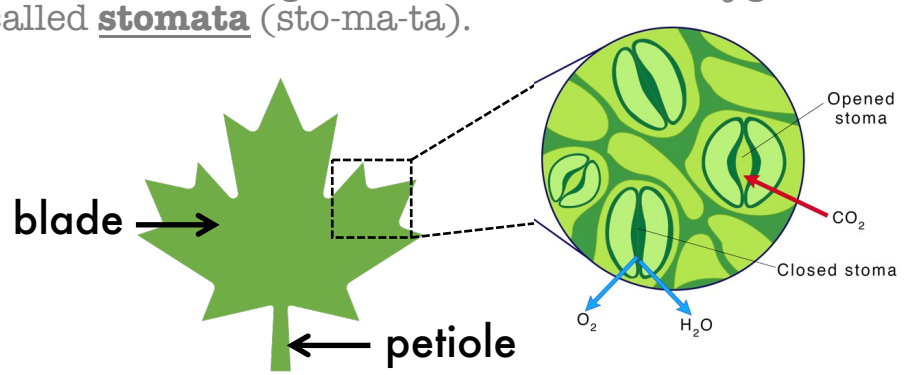
• WHAT IS A LEAF?

Leaves are the part of the plant that absorb light and carbon dioxide (CO_2) to make food for the plant and oxygen for the air. Leaves can come in many sizes and colors. They have special molecules that absorb sunlight and make sugar! This sugar feeds the plant and it provides food for us – many of the things we eat come from leaves and plants.

Teachers: ask the kids what their favorite leaf to eat is (e.g. lettuce, basil, mint, tea, kale, chard). Share your favorite edible leaf!

• WHAT ARE THE PARTS OF A LEAF?

A leaf is made of a **blade** and a stem called a **petiole** (pee-tee-ol). Green **chlorophyll** in the blade absorbs sunlight and gas (CO_2), then the leaf makes sugar and "breathes" off oxygen through tiny holes called **stomata** (sto-ma-ta).



• WHY DO SOME LEAVES CHANGE COLOR?

In the fall, as days get shorter, deciduous trees stop making food and leaves lose their chlorophyl. When the green color goes away, it reveals yellow, red or purple pigments that are found in leaves. Brown leaves are dead leaves that will get pushed off the tree. New leaves will replace them in spring when the temperature is warm and the days get longer again.

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Activities to learn about leaves

• Gathering Walk

In Iowa, the changing of leaves usually happens at the end of September or early October. Find time this month to walk in your neighborhood and notice all the different leaf colors you see. Go for a trail walk and see if you can find even more leaf colors and shapes! Use the guide on the last page for recording what you see. These scientific processes are called *observation* and *recording*.

• Sorting and classifying

The changing of leaf colors in the fall is a great opportunity for children to practice sorting and classifying specimens by color, shape, size, texture and more. Leaves can be pointy, sharp, round, wavy, big, small...) As children practice this skill of differentiation between objects, they will notice and describe their features. You can help model some of this by collecting leaves together and then talking about what you all notice. Plants are often classified based on similarities, called shared charcteristics, and leaf shape is an important one!

• Leaf Man

Go outside and gather leaves of different colors, shapes and sizes. Gather your supplies:

- Collected leaves
- Piece of paper or an old paper bag
- Glue

Assemble your Leaf Man! Using your gathered leaves, make a head, body, arms, legs. Glue them in place.

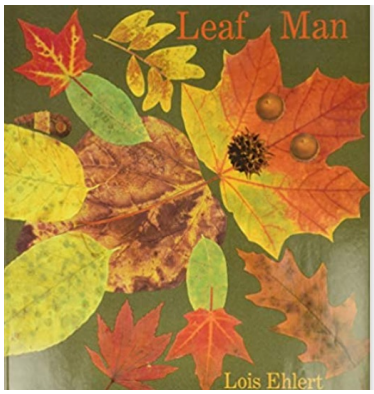
Optional:

- Add googley eyes
- Cut and glue on scraps of fabric for clothes
- Draw a face with chalk markers or gel pens

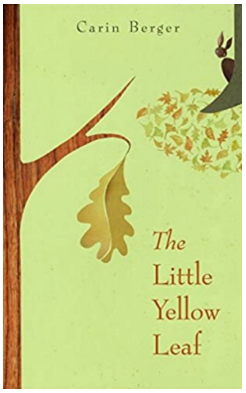
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BOOKS TO READ TOGETHER

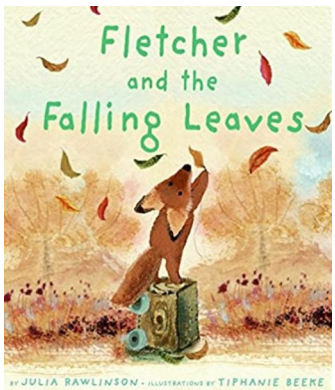
FOR AGES 3-6



LEAF MAN
by Lois Ehlert



THE LITTLE YELLOW LEAF
by Carin Berger



FLETCHER AND THE FALLING LEAVES
by Julia Rawlinson



LEIF AND THE FALL
by Allison Sweet Grant and Adam Grant

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LEAF COLLECTING

Roll some dice to determine how many of each to find.

 **Red leaf**	 **Orange leaf**
 **Yellow leaf**	 **Green leaf**
 **Brown leaf**	 **Purple leaf**

What trees are nearby?

Can you match the leaves you found to a tree?

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