

BE A MIMIC MAKER

Invent Inspired by Leaves



You are a MIMIC MAKER



In this mini-unit, you'll make all the discoveries.

Get ready to explore!

After your investigations, you'll make a list of leaf ideas
(things you found interesting).

From your list...

you'll create a leaf-inspired invention, draw the invention or build a model out of recycled materials.

Make your own MIMIC MAKER JOURNAL

- 1) Choose an option:
 - Composition notebook
 - Spiral notebook
 - Homemade notebook (papers stapled or taped together)
- 2) Decorate the cover.
- 3) Put your name on the front.
- 4) Suggestion: Write on the front of pages unless noted in the directions.



MY MIMIC MAKER JOURNAL

INVESTIGATIONS IN LIFE SCIENCE

See, Think, Wonder....



Go on a collection walk.
Start by taking three deep breaths.
Feel your feet on the ground.
Feel connected to the earth.
As you walk, look for leaves.
Collect five to ten different leaves.
Gently pick leaves from a tree, bush, or from the ground.
When you look at your leaf collection ask yourself..

What do I see?

What do I think?

What do I wonder?

LEAVES

SEE _____

THINK _____

WONDER _____

MIMIC MAKER JOURNAL

After you explore leaves through these activities, you'll return to the SEE, THINK, & WONDER in your journal, answer your questions, and write down new things you've learned.

Remember, there are no right or wrong questions.

Just curious you!!



EXPLORE



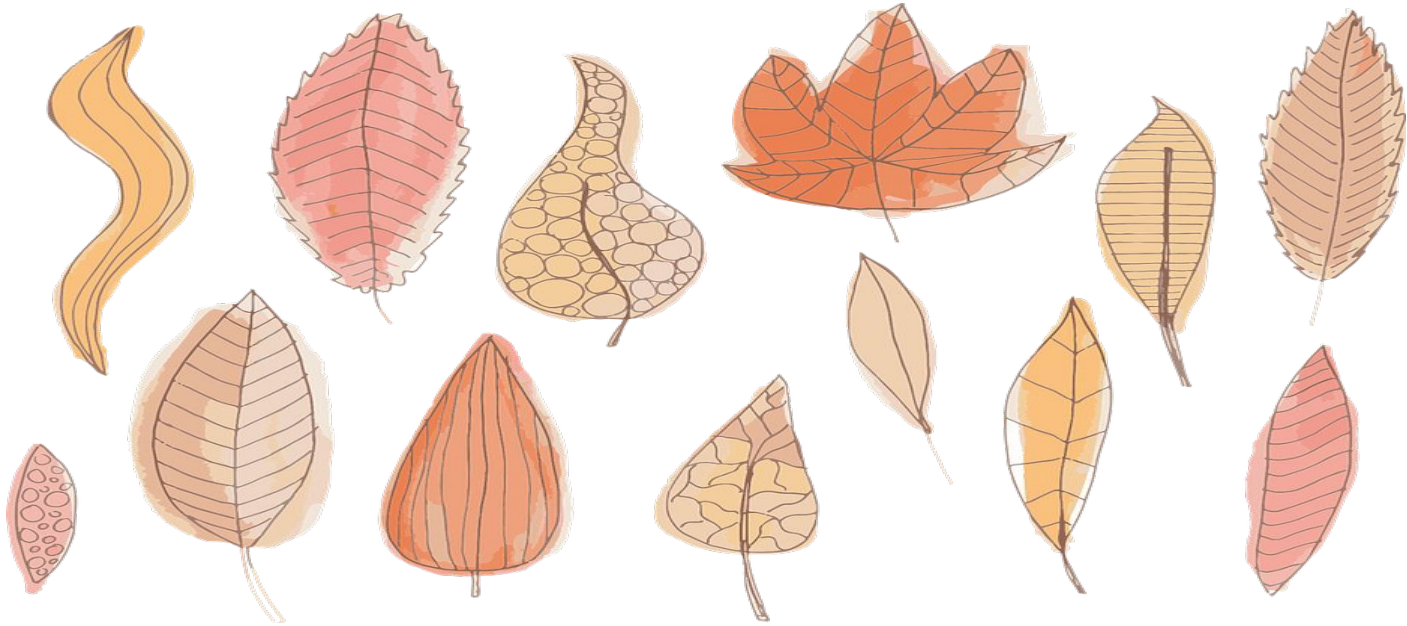
Leaf Sort

- Sort your leaves in ways that are interesting to you. If you want, use the words in the box. SORT BY...

- **Color**
- **Size**
- **Leaf Shape (hand, heart, spear)**
- **Texture (rough, smooth, fuzzy)**
- **Edge Shape (pointy, rounded, spiky, lobed)**
- **Leaf Arrangement (simple, compound)**

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Draw and color a picture of your favorite sort. Write descriptive words around your leaves.



LEAF SORT

EXPLORE



In MIMIC MAKERS you read about Lynn Loo. Through many investigations, Lynn and her team discovered wrinkles and folds absorb and channel sunlight.

Observe the wrinkles and folds on a leaf using a hand lens.



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Complete a leaf rub.

Draw a thumbnail sketch (enlargement) of the wrinkles and folds.

Measure and record the length and width of your leaf.

Identify and record the type of leaf using a guide page like this [one](#).

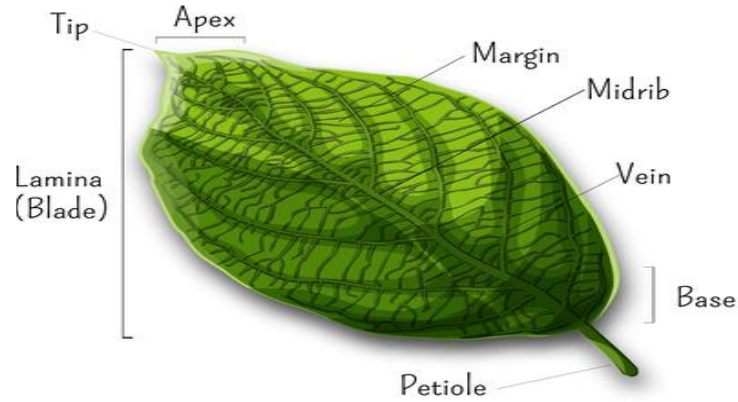
Label the parts of your leaf using slide #14.



LEAF RUB

EXPLAIN

Leaf Parts



EXPLORE

Leaf Submerge

Take a deep breath, and let it all out. You just helped a plant GROW! How? Plants need CO₂ to survive. Each time you exhale, you release this gas into the air. Take another deep breath and hold it. Pretend to jump into a swimming pool. Now that you're underwater, let out all your air. What's the difference between these two breaths? Try this...



EXPLORE (*Leaf Submerge continued*)



- *Get a glass bowl filled with lukewarm water and an ACTIVE leaf (one from the tree).*
- *Place the leaf in the bowl of water, and place the small rock on top so it is fully submerged.*
- *Place the bowl in a sunny spot inside or outside.*
- *Now wait for a few hours. Write down what you think will change or happen and why.*
- *Share you ideas with your fellow classmates.*
- *A few hours later, observe the leaf. What do you see? Use a hand lens if needed. Draw a picture of the leaf in the bowl. Write down your observations.*

EXPLAIN

Plants Make Food

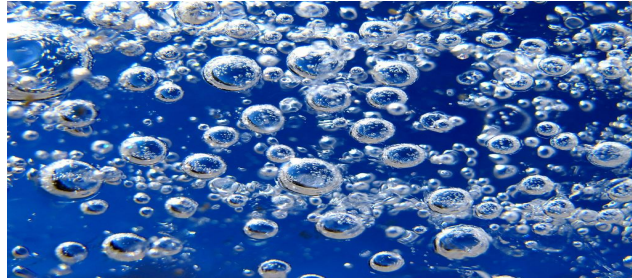
What did you discover? Yes, BUBBLES!! But why?



Even though your leaf is under water, it is still using sunlight to make food. The leaf is creating energy through the process of photosynthesis. It is also getting rid of stuff it no longer needs. The leaf releases or expels extra oxygen and water. This release creates bubbles of oxygen in the water. Oxygen is lighter than water so...keep watching. What happens to the bubbles?

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Draw a picture of your LEAF SUBMERGE Exploration.



How can you show the process?

- Sunlight being absorbed into the leaf.
- Light moving along the wrinkles and folds on the surface.
- Oxygen and water being released.
- Bubbles forming and rising to the surface.

LEAF SUBMERGE

Reread your SEE, THINK, & WONDER.
Did your explorations answer any questions?
Write those NEW IDEAS & FACTS down.

Still unanswered questions?

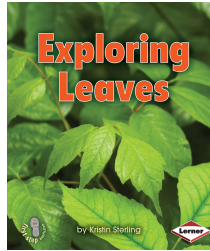
Go on a reading investigation.

Take a look at some leaf books and interesting facts from [ASK NATURE](#).

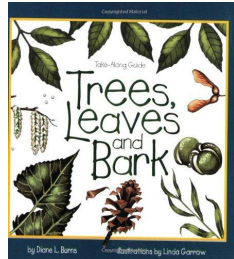


BOOKS ON LEAVES

EXPLORING LEAVES by Kristin Sterling (Lerner)

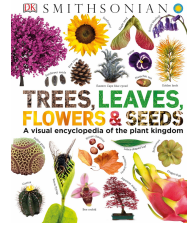


TREES, LEAVES, AND BARK by Diane L. Burns, illustrated by Linda Garrow (Northwood)

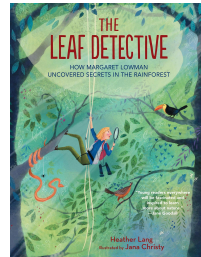


BOOKS ON LEAVES (Cont.)

TREES, LEAVES, FLOWERS, AND SEEDS: A Visual Encyclopedia of the Plant Kingdom
by Smithsonian (DK)



THE LEAF DETECTIVE: How Margaret Lowman Uncovered Secrets in the Rainforest
by Heather Lang, Illustrated by Jana Christy (Calkins Creek)



Be a Mimic Maker

Generate ideas in your journal.

List interesting things you've learned about leaves.

List useful things you could invent based on your discoveries.

Now invent.

Draw a sketch of your invention or make a model of your invention using recycled materials.

LEAF DISCOVERIES

List everything you've learned about a leaf.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Sometimes Mimic Makers NEED IDEAS...

Read the local newspaper, and list people and projects that could use your help - firefighters, first responders, doctors, bus drivers, librarians etc.

Find an article or book about a real person or situation. Could you invent something to help this person or project?

To help you create, close your eyes.

Put yourself in the situation you are planning to help.

Make a list of the things you saw in your imagination. Research answers to your questions.

Next, take what you've learned, and invent something that will help this person or situation.

Be a Mimic Maker

When you're done...

Draw a model of your invention in your journal.

Name your invention and write down what it does.

Extra bonus: Take a picture of your invention and post on IG #mimicmakers.



[Click here to download this unit.](#)

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More MIMIC MAKER Mini-Units are coming your way soon.
For a complete first grade NGSS-aligned life science unit, visit Kristen Nordstrom on
Teacher Pay Teachers.

