



# HOW DOES A Leaf Breathe?



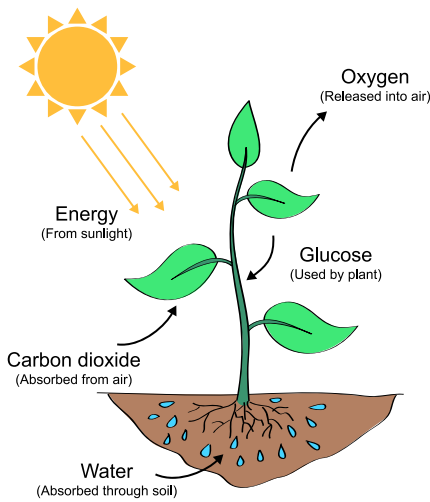
Sometimes we don't always think of plants and trees as living and breathing organisms, but they are! They don't have lungs or a respiratory system like we humans do, but they are very much alive. This activity will help you visualize that concept.

## WHAT YOU NEED:

- 1 glass or clear plastic bowl of water
- 1 active leaf from a tree or a plant (one that you remove from the tree or plant)
- 1 small rock
- Magnifying glass (optional but cool)

## HOW TO:

- Fill your bowl with lukewarm water. It's best to use a glass or clear plastic bowl so you will be able to see the experiment from all angles. Be careful if you use glass.
- Remove a leaf from a tree or plant – not one picked up off the ground.
- Place the leaf in the bowl of water and put a small rock on top of it so it is fully submerged under the water.
- Put the bowl in a sunny spot.
- Take a peek a few hours later and observe the changes in the leaf.



## WHAT'S HAPPENING?

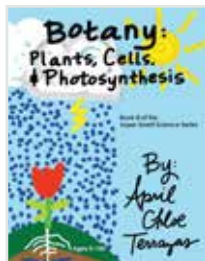
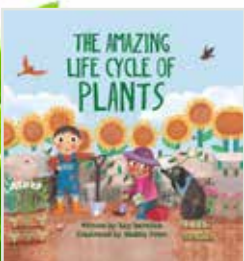


If you have a large magnifying glass, you will be able to make your observations up close. You should notice small bubbles that form around the leaf and the edges of the bowl. You are seeing the leaf use sunlight as part of photosynthesis. Photosynthesis is where leaves convert sunlight to energy.

## Fun Fact



As the leaf creates energy, it gets rid of the items it no longer needs, so it will expel both the extra oxygen during photosynthesis along with water. It's sort of like what happens if you hold your breath underwater and then let it out. You would see bubbles coming up in the water. The photosynthesis is what allows us to see the bubbles.



### Related Books:

- *The Amazing Life Cycle of Plants* by Kay Barnham
- *Botany: Plants, Cells & Photosynthesis* by April Chloe Terrazas
- *Plants Can't Sit Still* by Rebecca E. Hirsch