

Leaf Transpiration Lab

Plant transpiration is pretty much an invisible process. Since the water is evaporating from the leaf surfaces, you don't just go out and see the leaves "breathing". Just because you can't see the water doesn't mean it is not being put into the air, though. One way to visualize transpiration is to put a plastic bag around some plant leaves.

Materials:

Plastic Sealable bag

Rubber Band or twist tie

Parent Plant

Measuring cup, beaker or graduated cylinder



Steps:

1. Select a limb with several leaves on the end
2. Place as many leaves as you can inside the sealable bag without removing the leaves from the plant
3. Close the seal on the bag as tight as possible with the leaves inside with either a rubber band or a twist tie (avoid damaging the plant)
4. Leave the bag sealed for 24 hours
5. After 24 hours, carefully remove the bag and avoid less any of the water escape. It may be helpful to shake the bag gently to get the water to fall to the bottom of the bag.
6. Measure and record the amount of water collected in the bag

Student Data

How much water was collected from your bag?

Find 6 other students and record the amount of water they collected below

Amount of Water Collected	
Your Plant	
Student 1 Name	
Student 2 Name	
Student 3 Name	
Student 4 Name	
Student 5 Name	
Student 6 Name	
Class Total	

This is a free resource provided by Georgia Agricultural Education
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