



OBSERVING TRANSPIRATION IN PLANTS

with a Plastic Bag

Question: Do plants release water vapor into the air?

Hypothesis: _____

MATERIALS

- A healthy potted plant with many leaves
- A clear plastic bag (large enough to cover part of the plant)
- A rubber band or twist tie
- Water (for the plant, if needed)
- Optional: marker (to label the bag)
- Tape or string (optional)

PROCEDURE

1. Water your plant the day before the experiment so it is well hydrated.
2. Choose a leafy branch or section of the plant.
3. Gently place the clear plastic bag over the leaves, being careful not to damage them.
4. Seal the bag around the stem or pot using a rubber band or twist tie so the bag is airtight.
5. Write the time and date on the bag.
6. Place the plant in a location with bright, indirect sunlight.
7. Observe the bag over the next 1–3 hours.

RESULTS

Describe what happened in the bag over time.

What does this show about the plant?



WHAT TO OBSERVE

Look inside the plastic bag.
What do you see forming on the inside?

CONCLUSION

What did you learn from this experiment?

How does transpiration help the plant?

Transpiration is the process by which plants release water vapor from tiny openings in their leaves called **stomata**.