

Leaf Starch Test

During photosynthesis, plants use sunlight, water and carbon dioxide in order to produce glucose and oxygen. When the plant produces a lot of glucose, the plant will store this extra energy in the form of starch. This activity has a purpose of highlighting the starch contained in plants that is usually invisible to our eyes.

Hypothesis:

How much starch do you think we will find in leaves?

Materials:

- Green leaves (spinach or similar)
- Iodine solution (for starch test)
- Alcohol (ethanol or similar)
- Beakers
- Water
- Kettle
- Droppers
- Flashlights or lamps

Procedure:

1. Boil a leaf in water (optional: with teacher's help).
2. Dip it in alcohol to remove chlorophyll (optional, teacher does this).
3. Rinse the leaf in warm water to soften it (it should have lost green colour).
4. Add **iodine** solution — it turns **blue-black** where **starch** is present.
5. Record observations.

**Observations:**

What are the observations that you observed at the end of this experiment? Explain your observations and sketch a drawing of your leaf after the experiment.

Conclusion:

1. What does this tell us about photosynthesis?

2. Why do you think plants store sugar as starch?
