

Chlorophyll Rubbings

*A lesson from the New Jersey Agricultural Society
Learning Through Gardening program*

OVERVIEW: Students discover chlorophyll, a key ingredient in photosynthesis, in this simple activity, and learn its role in the process used by plants to make food. Use this lesson together with or after a discussion of photosynthesis.

GRADES: 2-5

OBJECTIVE: The student will be able to:

- Explain what chlorophyll is and its role in photosynthesis.

BACKGROUND:

Plants require light as a form of energy to develop and grow. The way this energy transfer happens is by using chlorophyll. Chlorophyll is the green pigment in plants that is used to trap energy from the sun. Each green part of a plant contains chlorophyll. Chlorophyll helps plants absorb light and convert it into sugar through photosynthesis. It serves a key purpose in the food chain, not only by making food for plants, but by creating food in plants for animal and humans to eat.



MATERIALS:

1 green leaf for each student. You can ask students to bring these from home.
1 metal spoon for each student or one for each small group.
2 pieces of masking tape for each student
White paper

PROCEDURE:

Fold the white paper in half and crease. Open the sheet and place a leaf on one side of the paper so it is flat and facing down. Fold the other half of the paper over the leaf. Adhere the paper with masking tape to the table to hold it in place while you make the rubbing. Press firmly against the paper using the bottom of the metal spoon. Rub the spoon vigorously over the surface of the paper. The leaf's chlorophyll will be transferred to the paper.

EVALUATION:

The student will explain verbally or in writing what, and what color, chlorophyll is.

New Jersey Learning Standards

Science: 2: LS2.A 3:LS1.B 4:LS1.A 5:PS3.D, LS1.C