

Plants and Photosynthesis

Students become junior botanists as they learn about how plants grow in sunlight.

SUMMARY:

We're going green! Learn about how a plant uses sunlight to create food, find out why plants are green, and discover the life cycle of a plant. Learn about soil when you build and keep your own plant that will photosynthesize and grow right at home.



EDUCATIONAL VALUE:

This workshop provides students with an introduction to photosynthesis, including an understanding of the chemical processes at work in the plant, plant respiration, and the role of plants in food webs. Hands-on activities encourage students to interact with the concepts presented. This lesson provides an opportunity to develop scientific skills through inquiry based instructional methods.

TAKE-HOME MESSAGE:

- 1 The major plant parts are roots, leaves, stems, and flowers.
- 2 Plants have special parts that perform special functions in order for the plant to survive.
- 3 Environmental conditions determine how well plants survive and grow.
- 4 Soil quality can affect growth and survival of plants.

TAKE-HOME PRODUCT:

Mad Science® Go Greenhouse



North Carolina Essential Standards:

Understand how plants survive in their environments.

- 3.L.2.1 Remember the function of the following plant structures as it relates to the survival of plants in their environments: Roots – absorb nutrients, Stems – provide support, Leaves – synthesize food, Flowers – attract pollinators and produce seeds for reproduction.
- 3.L.2.2 Explain how environmental conditions determine how well plants survive and grow.
- 3.L.2.3 Summarize the distinct stages of the life cycle of seed plants.
- 3.L.2.4 Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.