

A Growing Market

Objective

Students will learn about the materials needed to grow plants and how farmers market their products.

Background

In Oklahoma, one of the fastest-growing agricultural enterprises is the bedding plant industry. Bedding plant is the name for young plants grown especially to sell in stores, gardens, farmer's markets and nurseries. People buy the plants, take them home and plant them in their gardens, yards, flower beds and sometimes even in large pots.

Most bedding plants are started in greenhouses and sold in small plastic containers. Growers plant the seeds for many popular plants while it is still cold outside—in January and February. They plant the seeds in greenhouses where they will get several hours of high-intensity light every day. That way they will be strong and ready to transplant early in the spring. Some of the most popular bedding plants for use in Oklahoma gardens are begonia, broccoli, cabbage, garden mums, geranium, impatiens, marigold, pansy, pepper, petunia and tomato. Various herbs have also begun to gain popularity as bedding plants.

Activity 1

1. Read and discuss background.
2. Bring seed catalogs and gardening books to class.
 - Each student will choose one plant to research.
 - Students will use the worksheet to create information sheets explaining their plants' history, proper care and other interesting information.
3. Students will research plants that are native to Oklahoma.
4. Students will find the origins of several garden plants common in your area.

Activity 2

1. Students will list the materials they will need to grow the plants. Suggest using recycled materials like milk cartons as containers for growing plants.
 - Students will gather materials.
 - Students will start plants, using what they have learned in their research.
2. After two or three weeks, students will share what they have learned about their plants.
 - Students will show the progress their plants have made.
 - Students will explain what kind of care the plants will need once they have taken them home
 - Students take their plants home for planting.

Oklahoma Academic Standards

GRADE 6

Life Science 2.1

Earth Science 3.3

GRADE 7

Life Science 1.4

Vocabulary

bedding plant—flower or vegetable plant planted in beds.

greenhouse—A glass or plastic covered structure used for the growing of plants.

nursery—A place where plants are grown for sale, transplanting, or experimentation.

transplant— to transfer from one place to another; to uproot and replant a growing plant.

Resources Needed

seed catalogs

gardening books

vegetable and flower seeds

potting medium

plastic pots or alternatives like milk cartons, margarine tubs, etc.

Ag in Your Community

Take a field trip to a greenhouse during the spring so students can see a bedding plant operation.

- Students will take measurements of plant growth and graph results.
 - Students will keep journals of their plants' progress.
 - Students will report back to the class after a few weeks.
3. Students will grow marigolds and other hearty, quick-growing flowers to give away as Mother's day gifts.

Activity 3

1. Students will research to determine the plants requirements for food, water, oxygen, or other resources and how they may compete with each other for limited resources, access to which consequently constrains their growth and reproduction.
2. Students will plan their garden to reduce plant competition for these resources.
3. Students will research to determine how the plants pollinate.
 - Will they self-pollinate or will they need pollinators?
 - If pollinators are needed, what plants need planted in the area to attract pollinators?

Extra Reading

Bauer, Joan, *Squashed*, Puffin, 2001.

Bjork, Christina, *Linnea in Monet's Garden*, Farrar, Strauss and Giroux, 1991.

Burnie, David, *Plant*, Eyewitness Books, DK, 2011.

Edom, Helen, *Science With Plants*, Usborne, 2007.

Fleischman, Paul, and Judy Pederson, *Seedfolks*, Harpercollins, 1997.

Name _____

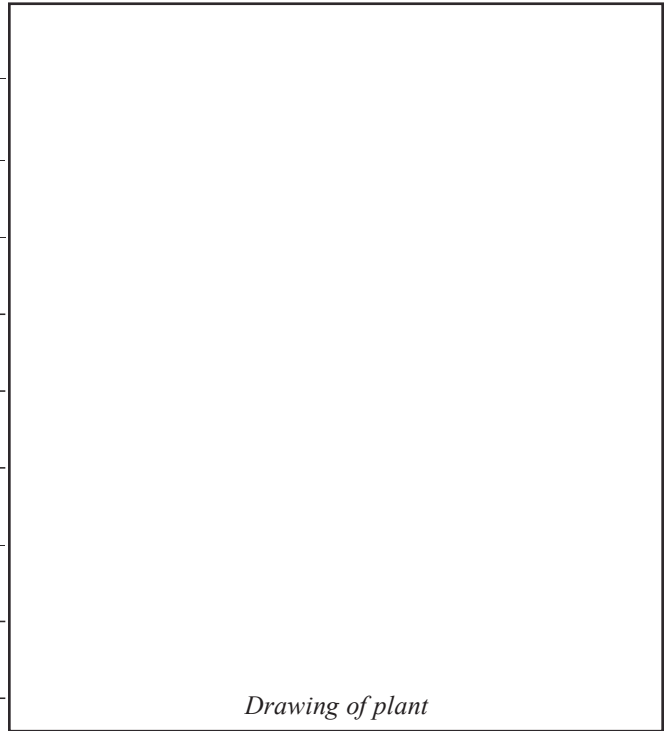
A Growing Market

Common Name _____

Scientific Name _____

Description of Plant _____

Plant's origin _____



Drawing of plant

Plant care

Transplanting tips _____

Soil type _____

Watering _____

Light needs _____

Fertilizer _____

Space needed _____

How does plant pollinate _____

Other plants to plant nearby _____
