

# Planting a Butterfly Garden

## An Activity for All Grade Levels

### Objective

Students will plan and plant a garden in their schoolyard.

### Background

Planning and planting a butterfly garden is a positive action that your students can take to help provide monarchs and other insects with resources they need to survive. In addition, they will work together on a long-term project, planning where and when to plant their garden, deciding what equipment and supplies they will need and actually planting seeds or seedlings. Since butterfly gardening is becoming more and more popular, you may be able to visit an existing garden with your students to get ideas. Other resources include our references, garden supply stores and conservation and gardening organizations. Many schools work with a Master Gardener in their area in planning and caring for a school butterfly garden.

In this lesson, we include suggestions for creating a school garden. Many of the ideas and information come from an article by Jennifer Goodwin Smith in the January 1995 issue of Science and Children (p. 29-32). She planned and planted a school butterfly garden with sixth and seventh graders in Maryland and wrote the article to make it easier for others to do similar projects.

### Procedure

#### Step 1: Planning to Plant

1. Get permission from school administration and maintenance personnel. It is especially important to gain the support of the people who maintain the grounds.
2. Discuss how butterflies and other insects use plants, and how they need special plants at different times in their life cycle.
3. Discuss the work involved in a garden, including maintaining the garden during the summer and raising money for seeds and other materials. Also brainstorm benefits of a garden (such as decreased noise and

### **Grades: K-12**

### **Key Concepts:**

- Gardens provide a habitat for many organisms.
- Humans can help preserve and create habitats for organisms.
- Seeds have various requirements for germination.
- Garden plants are either annuals or perennials.

### **Skills:**

- Read for information
- Create representative drawings and symbols
- Use a scale measurement ratio
- Use a scale drawing to plant and identify flowers in a garden

### **Materials:**

- Graph paper for planning garden layout
- Seed catalogs, gardening magazines, butterfly guides, books on butterfly gardens
- Seeds or seedlings
- Gardening supplies (soil, fertilizer, shovels, rake, hoe)
- Containers in which to start seeds (yogurt containers, egg cartons, nursery flats)

air pollution from reduced mowing, reduced soil erosion, a beautiful garden, food and shelter for many organisms).

4. Develop a timeline for the garden. If you start from seed, you will need at least three months. A good timeline is:

- ☐ *First month:* get administrative support, choose a site, hold fund-raisers if necessary, order seeds, germinate seeds.
- ☐ *Second month:* monitor seedling growth, design the garden.
- ☐ *Third month:* prepare garden site, transplant seedlings.

5. Decide on the criteria you will use to judge a site. Important considerations include available sunlight, level of foot traffic, visibility to school and community and vulnerability to vandalism.

## Step 2: Planning the Garden

1. Choose the plants that you will use. Sources of information include seed catalogs, gardening magazines, books about butterflies and butterfly gardening, and other resources.
2. Encourage students to choose plants that bloom at different times. Perennials are good since they only have to be planted once, but including an area for annuals will allow future classes to participate in planting each year. Also consider plant height, color and length of blooming time.
3. Make suggestions as to the garden design, such as choosing colors that blend and making sure all plants are visible (i.e., tall in back, short in front).
4. Plan the garden together, using graph paper to draw a plan of what you will plant where.

## Step 3: Starting Seedlings

1. Buy seeds (or plan where you will buy potted plants). Sources include gardening catalogs, hardware stores and nurseries. You may want to plan to use a combination of seeds and purchased plants. Plants should not be purchased until it is time to plant the garden.
2. Have students bring in yogurt containers, foam egg cartons and other containers in which to start seeds. You can buy, borrow or ask for donations of potting soil, fertilizer, straw, shovels, a rake, and a hoe.
3. Plant seeds. Punch a small hole in the bottom of containers, fill with soil, bury seeds according to instructions and place containers on trays to catch extra water. Students should be responsible for caring for their plants. They can also measure plant growth, germination time, and other variables and keep track of their progress in a science journal or lab notebook.
4. Keep seedlings in a sunny window or under grow lights.



Jim O'Leary

5. After 4 to 6 weeks, seedlings will be ready to transplant.

## Step 4: Planting the Garden

1. Prepare the soil. Turn it over and add some fertilizer.

2. Plant seedlings outdoors. Make sure danger of frost is past.

3. Apply mulch to prevent soil erosion, maintain soil moisture and slow weed growth.

4. Set up a schedule for garden maintenance as a class. Tasks may include watering, weeding and replacing mulch.

5. Set up a time to observe the garden once a week. Keep track of what plants are present, which are blooming and what insects are seen in the garden.

6. Clarify a no pesticide policy.

7. Make a plan for caring for the garden over the summer. Parents are often happy to help, especially if they have been involved in planning the garden. The more people are involved, the less likely your garden will become a burden for a small number of people.