

Lesson C2–5

Using Annuals and Perennials in the Landscape

Unit C. Nursery, Landscaping, and Gardening

Problem Area 2. Residential Landscape Design

Lesson 5. Using Annuals and Perennials in the Landscape

New Mexico Content Standard:

Pathway Strand: Plant Systems

Standard: IV: Exercise elements of design to enhance an environment (e.g., floral, forest, landscape, farm).

Benchmark: IV-A: Apply basic design elements and principles to create a design using plants.

Performance Standard: 6. Select plant(s) for design.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Identify the difference between an annual and a perennial.
2. Explain how to use annuals and perennials in the landscape.
3. Describe how to design a flower garden.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Biondo, Ronald J. and Charles B. Schroeder. *Introduction to Landscaping: Design, Construction, and Maintenance*, Second Edition. Danville, Illinois: Interstate Publishers, Inc., 2003.

Noland, Dianne A. and Kirsten Bolin. *Perennials of the Landscape*, Danville, Illinois: Interstate Publishers, Inc., 2000.

Other Resources. The following resources will be useful to students and teachers:

Helmer, Jane Coleman and Karla S. Decker Hodge. *Pictorial Guide to Perennials*. Kalamazoo, Michigan: Merchants Publishing Co., 1996.

Taylor, Norman. *Taylor's Guide to Perennials*. Boston, Massachusetts: Houghton Mifflin Company, 1987.

How to Design a Flower Garden. Gardening with Jeff Ball. Barr Entertainment. (Video)

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters
Copies of student lab sheet
Catalogs of flowering plants
Graph paper

Terms. The following terms are presented in this lesson (shown in bold italics):

Annual
Biennial
Border garden
Bulbs
Deadhead
Herbaceous
Island bed
Mulch
Perennial

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Begin the lesson by passing out photographs of flowers. See how many students can name the flowers. Then ask the students to sort the photographs into categories. Possible categories could include: plants that prefer sun or shade, plants over 1 foot tall, or plants with pink flowers. Finally have the students try to guess what the plant could be used for in the garden.

Summary of Content and Teaching Strategies

Objective 1: Identify the difference between an annual and a perennial.

Anticipated Problem: What is the difference between an annual and a perennial?

- I. Flowers add visual interest as well as fragrance to the garden. Flowering plants can be divided into three categories—annual, perennial, and biennial.
 - A. An **annual** is a plant that completes its life cycle in one growing season. People can purchase annuals as seed or as plants. They are planted in the spring, bloom throughout the summer, and die with the coming of the frost. Commonly known annuals are marigolds, petunias, Impatiens, and geraniums.
 - B. A **perennial** is a plant that will live year after year. **Herbaceous** perennials have soft tissue unlike the woody tissue found on trees and shrubs. Perennials are usually placed in the garden as small plants. With proper care, they will survive from year to year. Examples of perennials are peony, roses, delphinium, hosts, and daylily.
 - C. A special category of perennials are bulbs. **Bulbs** are flowering plants that have an underground storage structure that allows the plant to overwinter and flower the following year. Most bulbs are planted in the fall and they flower the following spring, like tulips and daffodils. There are a few bulbs like gladiolas that are planted in the spring and flower in the summer. Bulbs can also be planted in pots and forced in to early flowering for use by the florist industry.
 - D. A third category of flowering plants are called biennials. Bi means two so a **biennial** lives for two years. It grows foliage the first year and blooms the second year. An example of a biennial is the blackberry lily.

One way for students to master this objective is to have them go through catalogs or reference books on flowering plants. Have the students create lists of annual and perennial plants. Students can also learn to identify the different plants, associating the names with the correct specimen. Display TM: C2–5A to summarize the differences between perennials and annuals.

Objective 2: Explain how to use annuals and perennials in the landscape.

Anticipated Problem: How are annuals and perennials used in the landscape?

- II. Annuals and perennials have many uses in the landscape. When placed in the proper environment and given periodic maintenance, these flowering plants can become an asset to any well designed landscape.
 - A. Annuals can be used in the landscape for continuous color throughout the season. They can be placed around evergreen shrubs and on patios or decks. Annuals make wonderful window boxes and container plantings. Some annuals can also attract butterflies to the garden. Another use for these flowering plants are as cut flowers. The plants are grown in the garden and the flowers are then harvested and brought indoors to be used in vases and other fresh arrangements.
 - B. Perennials have many of the same uses as annuals but they don't always do as well in containers or window boxes. Perennials also have specific times when they bloom. It is important to pay attention to the blooming season of perennials when selecting them for the garden. Use a variety of plants that bloom at different times in order to achieve continuous blooming.
 - C. It is important to place annual and perennials in the proper location in the landscape. Each plant has specific environmental conditions needed for optimum growth. Two of the most critical environmental factors for growing flowers is the amount of sunlight and the amount of moisture. Be sure to check a reference book to find out which plants prefer sun, shade, dry, soils, or moist soils. It is very important that the soil is in the right condition for perennials because these plants will stay in the garden for many years.
 - D. In order to keep annuals and perennials looking their best, it is important to maintain them. The flower gardens will need to be watered, weeded, and mulched. A **mulch** is a material that is placed around the flowers to help maintain moisture and keep the soil temperature even. An example of a mulch is pine bark chips or acorn hulls. By starting with disease and insect free plants and placing them in the correct environment, problems with diseases and insects can be reduced. To improve the appearance of the flowers they may also need to be **deadheaded**, where the spent flowers are removed. Perennials will need to be divided every 3–5 years when they become overgrown.

One way to help students master this objective is to have the students plant a small flower garden. The students can then discuss the possible uses for the garden, study the site to determine the environment, choose the correct plants, and then maintain the garden.

Objective 3: Describe how to design a flower garden.

Anticipated Problem: How do you design a flower garden?

- III. The most important thing a gardener can do before actually planting a flower garden is to plan the garden design on paper first. By doing the design first, the gardener will save money by purchasing the correct type and number of flowers and preventing the need for extra la-

bor to move the plants around later. In order to begin the garden design process, the gardener needs to decide on the purpose of the garden and the location of the garden. Next, the gardener would need to evaluate the environment around the garden and then select the plants needed for that design.

- A. A flower garden can be a border garden. A **border garden** is placed along a fence or a wall in the yard. It is usually viewed from only one side. In a border garden the tall plants are placed in the back of the garden with the shorter plants up front. The designer should be careful to avoid a stair step look from the side of the garden so be sure to stagger the location of the various heights of plants.
- B. An **island bed** is placed in the center of a yard with the tall plants in the center of the garden and the shorter plants toward the outer edges.
- C. It is important to pay attention to the environmental requirements for the plants.
- D. In addition to these factors, the bloom season and the color of the flowers also play a part in the selection of the plants for the garden.

One way to help students master this objective is to have the students design a flower garden on paper. LS: C2–5A provides an example of an activity in designing a flower garden.

Review/Summary. Use the student learning objectives to summarize the lesson. Quiz the students on the vocabulary in the lesson. Have the students select a flowering plant from the resources and discuss its category, environment, and use.

Application. Application of this lesson can be achieved through the following ways:

Showing the video *How to Design a Flower Garden*

Completing LS: C2–5A

Reading the appropriate sections *Introduction to Landscaping: Design, Construction, and Maintenance*

Evaluation. The evaluation of the student achievement over the lesson objectives will be the successful completion of the garden design and the written test. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1=b, 2=c, 3=d, 4=f, 5=e, 6=a

Part Two: Completion

1. island bed
2. border garden

Part Three: Short Answer

1. Cut flowers around shrubs attract butterflies, add color to the garden, and add fragrance to the garden.

Test

Lesson C2–5: Using Annuals and Perennials in the Landscape

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | | |
|-------------|---------------|-------------|
| a. annual | b. perennial | c. bulb |
| d. biennial | e. herbaceous | f. deadhead |

- _____ 1. Lives year after year.
- _____ 2. Underground storage structure; tulip.
- _____ 3. Completes its life cycle in 2 years.
- _____ 4. Remove the spent flowers.
- _____ 5. Soft tissue.
- _____ 6. Completes its life cycle in one year.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

- 1. A(n) _____ is a garden placed in the center of the yard.
- 2. A(n) _____ is a garden placed along a fence or a wall.

Part Three: Short Answer

Instructions. Provide information to answer the following questions.

- 1. List three uses of annuals and perennials.

THE DIFFERENCES BETWEEN ANNUALS AND PERENNIALS

Annuals

**Live for One Growing
Season**

Bloom the Entire Season

**Die with the Coming of
Frost**

**Must Prepare the
Soil Bed Well**

Perennials

Live Year After Year

**Bloom for About a
Two Week Span**

**Can Overwinter by
Underground Storage
Structure**

Lab Sheet

Flower Garden Design

Directions:

You need to design a flower garden for a neighbor on your block. The garden should be 8 feet by 16 feet and it will sit in front of a white picket fence. You must include annuals and perennials in the garden. You can use any colors you prefer but the garden must have some pink in it. This is a full sun garden. After sketching the garden and showing the location of the flowers, you must write a plant list for all the flowers that were selected for the garden.