

## Lesson C2–3

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# Beginning the Design Process

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**Unit C.** Nursery, Landscaping, and Gardening

**Problem Area 2.** Residential Landscape Design

**Lesson 3.** Beginning the Design Process

### **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:** 1. Conduct a site evaluation for physical condition and design implications. 2. Apply elements of design (e.g., line, form, texture, color). 3. Incorporate principles of design (e.g., space, scale, proportion, order). 4. Use landscape design drawing tools including Computer Aided Design (CAD) and industry-specific software.

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

1. Demonstrate the use of a scale.
2. Describe how activities can be organized into goose egg plans.
3. Explain the importance of bed patterns.
4. Develop bed patterns for a landscape.

**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.

## List of Equipment, Tools, Supplies, and Facilities

Writing surface  
Overhead projector  
Transparencies from attached masters

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

Bed patterns  
Goose egg plan  
Scale

**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 several copies of landscape drawings. Ask the students to tell you the size of the yard. Ask them how big the trees and other plant material in the yard are. Ask the students how wide the patio or the deck drawn in the design is. Begin a discussion as to how they would know what the measurements are for these features.*

## Summary of Content and Teaching Strategies

**Objective I:** Demonstrate the use of a scale.

**Anticipated Problem:** What is a scale and how is it used in landscape design?

- I. In order to achieve accurate landscape designs, the plans must be drawn according to the actual dimensions of the yard and the plant material. It would be unreasonable and next to impossible to draw plans life size. It would take too many sheets of paper just to show an eight foot wide garage. Therefore, drafting plans are often “scaled down” so the plan can be drawn accurately but at a smaller scale. A *scale* is a piece of drafting equipment that allows you to draw your plan accurately.

- A. Most landscape plans are drawn at a 1/8 scale. This means that one inch drawn on paper is equivalent to 8 feet on the actual site.
- B. A scale is similar to a ruler in that it is marked along the side. Each dash has a specific measurement.
- C. Other commonly used scales are the 1/10 scale ( 1 inch = 10 feet ) and the 1/20 scale (1 inch = 20 feet).

*One way to help students master this objective is to have them practice reading a scale. Students can measure a line drawn on paper and convert it to the actual size. Have students go back to the landscape drawings used in the interest approach and measure the yard, the trees, and the patio. How do their measurements compare to their initial estimates? Use TM: C2–3A to reinforce the use of a scale in landscape designs.*

**Objective 2:** Describe how activities can be organized into goose egg plans.

**Anticipated Problem:** How can activities be organized into goose egg plans?

- II. A **goose egg plan** is a sketch of rough ovals and circles on a drawing that shows the placement of activities in a yard. By quickly sketching a circle for each activity or feature like the patio, swing set, and flower gardens, on the drawing of the yard, the designer can get a feel for how to separate a vast area into smaller rooms. There are several important points to remember when developing a goose egg plan.
  - A. The sketches should be done quickly and roughly. One should not worry about placing too much detail into the design at this time. The designer is just trying to get an idea of where things would fit together within the yard.
  - B. Remember to design the landscape from a functional standpoint. How are the people going to move about the yard? Where is the best place for items like the compost pile and a storage shed? Be sure to refer to the family inventory plan to make sure that all of the client's wants and needs will be met with the sketches.

*One way to help the students master this concept is to show them examples of goose egg plans. Then have students draw several goose egg plans for a landscape site. Display TM: C2–3B to illustrate a goose egg plan.*

**Objective 3:** Explain the importance of bed patterns.

**Anticipated Problem:** What is a bed pattern and why is it important in landscape design?

- III. **Bed patterns** help to form the framework for a design. They outline the location of all shrubs, flowers, and groundcovers within the design. Bed patterns also help to separate the lawn from the planting area. By placing all plants in a bed, the landscape takes on a more organized appearance and is easier to maintain.

One way to help students master this concept is to show students photographs of different landscapes. Be sure to include examples of plants tucked neatly into beds and others with plants placed throughout the yard. Then, have the students decide which landscape is more visually pleasing or easier to maintain. Have students cite their reasons for their decisions. Another way to help students understand how bed patterns ease the maintenance of a yard is to have the classroom set up as a landscape. Use desks or students as plants and place them about the room. Use two students standing side by side to act as a “lawnmower” and ask them to move throughout the “yard”. Then, relocate all the plants into a bed and have the “lawnmower” move throughout the landscape again. Have the students discuss how placing plants in beds affected the appearance of the yard and the ease of the lawnmower moving throughout the site.

**Objective 4:** Develop bed patterns for a landscape.

**Anticipated Problem:** How are bed patterns developed on a landscape site?

- IV. Bed patterns are used to outline the location of all plant material in a yard, with the exception of trees. There are three major types of bed patterns. They are: straight lines 90 degrees to the home, straight lines 45 degrees to the home, and curved lines.
- A. When choosing a bed pattern, one should remember that a view’s eye will follow the pattern. Patterns should be bold and wide enough to hold shrubs, flowers, and groundcovers.
  - B. Straight lines drawn 90 degrees to the house reflect the architect of the home and often lend a symmetrical appearance to the site.
  - C. On the other hand, straight lines drawn 45 degrees to the house create more of an asymmetrical design. They also reflect the architectural lines of the home.
  - D. Curved lines should be drawn as bold arcs and not small squiggles.
  - E. Bed patterns should be consistent throughout the yard. Only one bed pattern should be used for the public area and the same pattern or another should be used for the outdoor living area. By changing the bed pattern every few feet, the landscape takes on a very disheveled appearance and it is hard for the viewer’s eye to follow the design.
  - F. With all bed patterns, they should start and end at the edge of an architectural feature like the beginning of a door or window. If the home has a solid wall, the bed pattern should begin and end either 1/3 or 2/3 down the length of the wall.

*In order to help students achieve this objective, one should use TM: C2–3C to show examples of bed patterns.*

**Review/Summary.** Use the student learning objectives to summarize the lesson. Have the students quiz each other over key points in the lesson.

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

Showing TM: C2-3A, TM: C2-3B, and TM: C2-3C

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

**Evaluation.** The evaluation of the student achievements over the lesson objectives will be the successful completion of the lab sheets and the written test. A sample written test is attached.

## **Answers to Sample Test:**

### **Part One: Matching**

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

### **Part Two: Completion**

1. 1/8 scale
2. curved
3. 1/3 or 2/3

### **Part Three: Short Answer**

1. It gives the landscape a more organized appearance and provides for ease of maintenance.

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# Test

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## Lesson C2–3: Beginning the Design Process

### Part One: Matching

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

- a. 1/8 scale                      b. 1/4 scale                      c. goose egg plan  
d. straight line bed pattern    e. bed pattern

- \_\_\_\_\_ 1. Outline of location of shrubs, flowers, and groundcovers.  
\_\_\_\_\_ 2. 1 inch on paper equal 8 feet in the real world.  
\_\_\_\_\_ 3. Oval sketches showing the location of activities within a yard.  
\_\_\_\_\_ 4. Reflect the architectural lines of the home.  
\_\_\_\_\_ 5. 1 inch on paper equal 4 feet in the real world.

### Part Two: Completion

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

1. Most landscape plans are drawn at a \_\_\_\_\_ scale.
2. A \_\_\_\_\_ bed pattern should be done in bold arcs not small squiggles.
3. Bed patterns should start \_\_\_\_\_ of the way down a wall devoid of architectural features.

### Part Three: Short Answer

*Instructions.* Provide information to answer the following questions.

1. Why are bed patterns used in a landscape?

## READING A SCALE

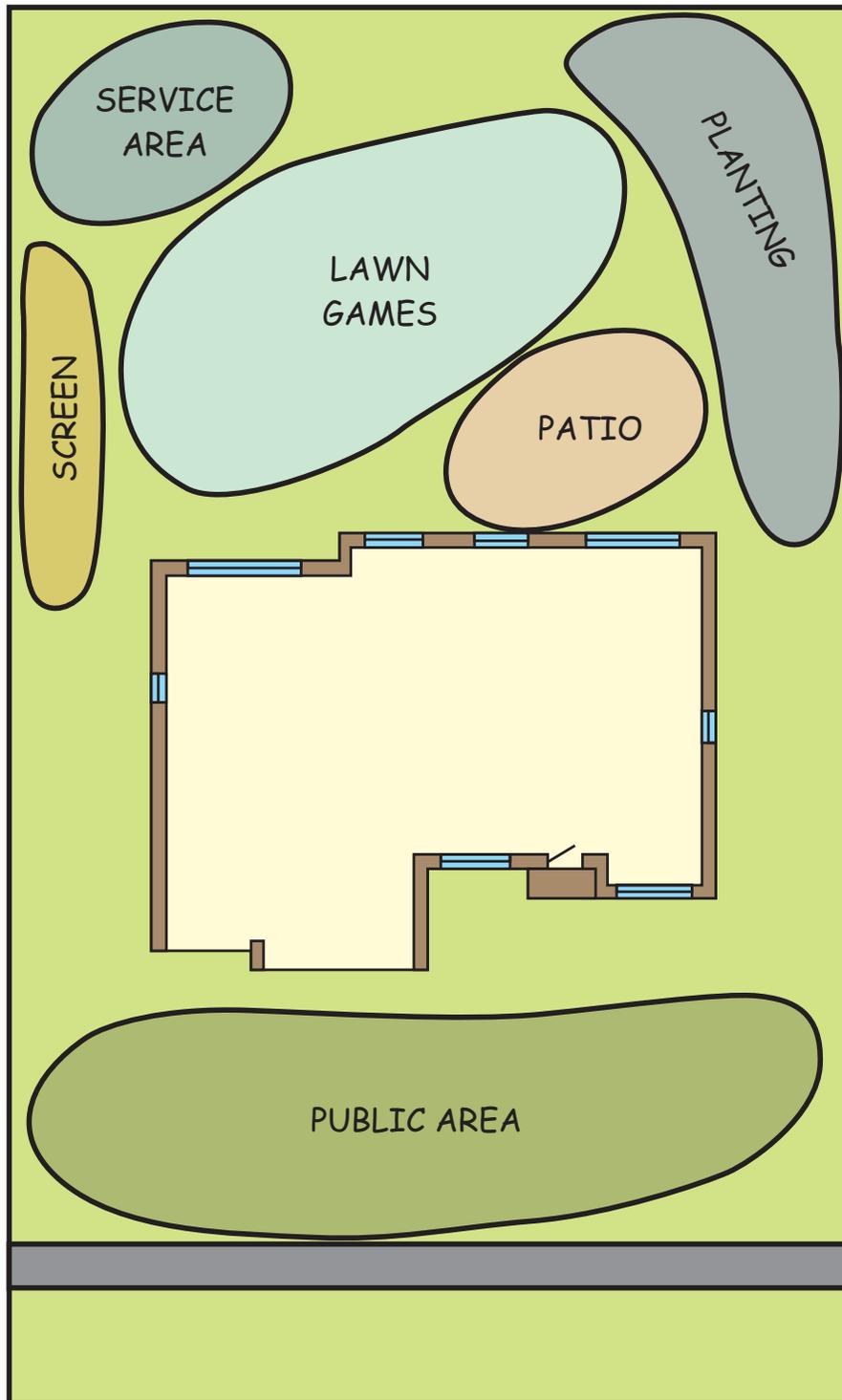
**Step 1: Turn the scale until you can find the scale you want to use. (Hint: Scales are marked on the right or left hand side.)**

**Step 2: Locate the zero on the scale.**

**Step 3: Realize that each line drawn shows one foot or a portion of one foot. (Hint: On  $1/8$  scale, each line = 1 foot, on  $1/4$  scale each line = .5 of a foot)**

**Step 4: Count the lines until you reach the amount of feet you need.**

# GOOSE EGG PLAN



# EXAMPLES OF BED PATTERNS

