A terrarium garden is a garden planted in a container enclosed in clear glass or plastic, which supports plants in a more or less self-contained environment requiring minimal maintenance. Once planted, the water present in the container is constantly recycled through natural evaporation and condensation cycles. Very little additional watering is necessary and the plants should thrive on a daily basis with adequate sunlight.

Terrarium gardens have been popular for many years and there is a wide variety of types and styles of terrariums from which to choose. The simplest terrarium can be made from goldfish bowls, large bottles with a large opening, or any other container that encloses the plants, either partially or entirely, and allows sunlight to enter through a clear, colorless material. A colored or tinted glass or plastic would limit the amount of sunlight available to the plants growing inside. A completely enclosed terrarium that traps and holds most of the moisture is ideal for plants that require high humidity. On the other hand, a terrarium that has an opening at the top for ventilation of excess moisture would be recommended for plants requiring a dry climate.

PLANT SELECTION

1. The available growing area in a terrarium garden will be quite limited in size and planting the plants in an enclosed container can be more difficult since it could only be done through a small, high opening.

2. Select the types of plants based on their common moisture and light requirements. For example, all the plants in the same container garden should like dry soil and high light conditions. If one were to mix plants with varying moisture and light preferences in the same terrarium, some would thrive and others would not.

3. Design the garden with plants of various heights, forms, and leaf textures, as well as coordinating flower and foliage coloring to best advantage.

SOIL SELECTION

The growing medium that should be used is a commercial potting soil. It should be clean, have a high organic content that will hold moisture, but is free-draining.

DRAINAGE LAYER

There should be a drainage layer below the growing medium which consists of, from top to bottom: a layer of pea gravel, a layer of horticultural charcoal and a layer of long-fiber Sphagnum moss. The pea gravel will provide a drain field to which any excess water will go, away from the root zone. The layer of charcoal will provide a natural filter for any accumulating water to prevent it from putrefying and killing the plant roots. The thin layer of moss will act as a screen to prevent soil particles from washing into the drain field.
TOOLS

For planting:
- A funnel made from rolled up, stiff paper
- A tool made of a wooden dowel with a cork at the end

For watering:
- A turkey baster or small watering can with a long spout

PLANTING PROCEDURE

1. Wash the terrarium with soap and water and rinse thoroughly.

2. Sterilize the terrarium in a mix of 1 part chlorine bleach to 15 parts water and rinse thoroughly and let dry.

3. Place the rolled up paper funnel in the terrarium to be used as a chute to fill the bottom layer. Add a 1/4 to 1/2 inch of pea gravel to the bottom of the terrarium.

4. Add a thin layer of horticultural charcoal over the surface of the pea gravel, about 1/4 inch thick.

5. Place a thin layer of the Sphagnum moss over the layer of charcoal.

6. Add the potting soil medium evenly over the drainage layer, to a depth of 1/2 to 1 inch deep or more, depending on the size of the root ball to the largest plant to be planted.

7. Remove plants from their containers and gently spread the roots out. Make a planting hole large enough to accept the root ball. Tamp the soil firmly around the plant roots. If working space becomes limited, use the dowel and cork tool as a tamping tool.

8. When all the plants have been planted, water sparingly around each plant's roots. Use the turkey baster to direct the water precisely to the root area.

9. Clean any splashes of soil on the inside of the terrarium with the paper towels. Do not use any chemical glass cleaner to clean the inside of the terrarium.

MAINTENANCE OF THE TERRARIUM

1. Monitor the water content of the soil. Water only when necessary using a mist sprayer to control and limit the amount of the water being applied.

2. Add no fertilizer to the garden for at least one year after planting. Check plants for nutrient deficiencies by checking to see if foliage color begins to yellow or the plants lack normal vigor. Use a water soluble houseplant fertilizer which has been highly diluted to 10% of the strength for normal houseplant applications.

3. Remove dead leaves promptly and keep the terrarium tidy.