TERRARIUMS

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A terrarium is a collection of plants grown in a transparent container; a mini-garden under glass. It captures the living wonders of the forest woodland, tropical garden, or desert, and expresses the creator's imagination.

A terrarium resembles a miniature outdoor garden. It differs in that it provides a controlled environment and is considered an enclosed ecological system.

Terrariums are easy and fun to make, yet require little care. A few teaspoons of water may be added occasionally to replace that which has evaporated. Some plants may need to be pruned or removed to avoid crowding.

The design and variety of plants, colors, or scenes is bounded only by the container size and the imagination of the maker.

The container should be clear enough to see through. Cloudy or tinted glass reduces the light and plants may become tall and spindly.

Soil Needs

To keep plants small and reduce overcrowding in the container, use a soil mixture that is not too fertile. It should be well-drained and porous. A suitable soil mixture can be made with equal parts of loam, sphagnum peat moss, and sand. To this add and mix one level teaspoon of 5-10-5 fertilizer

and two teaspoons of limestone for every two quarts of soil mixture. Artificial mixtures may also be used. The soil mixture should be slightly moist before planting. For cacti and succulants, use a mixture containing more sand.

Drainage Requirements

The container should have a layer of small pebbles or coarse sand on the bottom to provide a reservoir for excess water. Charcoal, either placed in a layer over the drainage or mixed with the soil, helps absorb objectionable odors that may arise from the planter. This may be especially desirable if the soil is high in organic material.

Plant Materials

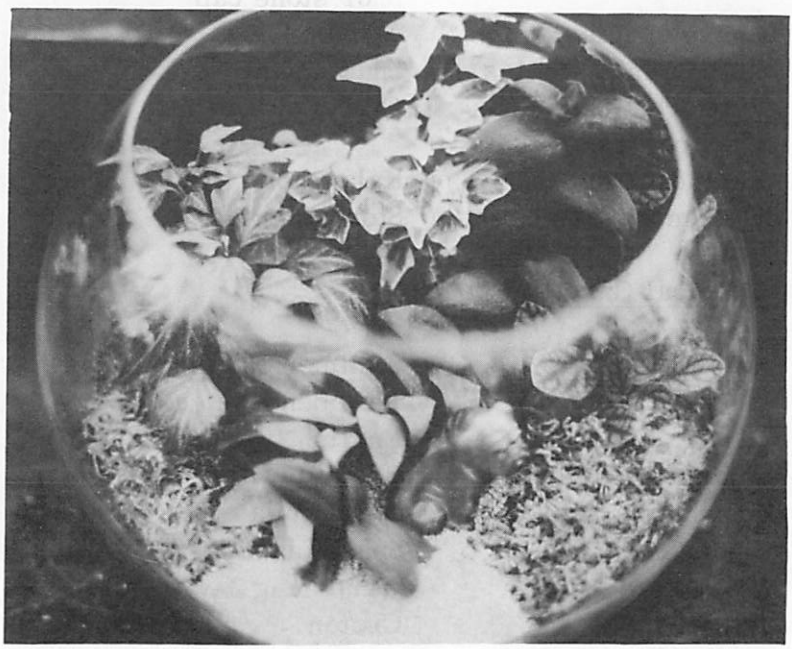
The type of plant will depend on the kind of terrarium you intend to make. For example, all woodland plants should be placed together. These would include moss, pipsissewa, fern and wintergreen. These can be collected from the woodland or shady places and/or purchased from nurseries specializing in woodland plants. Some plants may be on the Conservation List, requiring special permission from the owner for collection.

For small tropical gardens, plants in 1 to 2 1/4 inch pots or rooted cuttings may be used. These are available from Florists and garden suppliers. Dwarf plants are also available from specialists who grow them for terrariums. The key to success for the terrarium builder is to keep similar plant groups together when building the terrarium (e.g. cacti, with Agave spp.).

Listed below are some plants that would grow well together and provide a challenge for the terrarium builder:

Woodland Gardens

Scientific Name	Common Name
Epipactis pubescens	Rattlesnake plantain
Mitchella repens	Partridge berry
Gaultheria procumbens	Wintergreen, checkerberry
Hepatica americana	Mayflower, blue anemone
Chimaphila species	Pipsissewa, Dragon Tongue
Fern species	Smaller growing ferns
Lycopodium species	Club mosses, climbing fern
Taxus--Abies, Pinus	Seeding yew, fir, hemlock
Kalmia latifolia	Mountain Laurel seedling
Polypodium vulgare	Rock polypodium
Viola species	Violets



Field and Meadow Garden

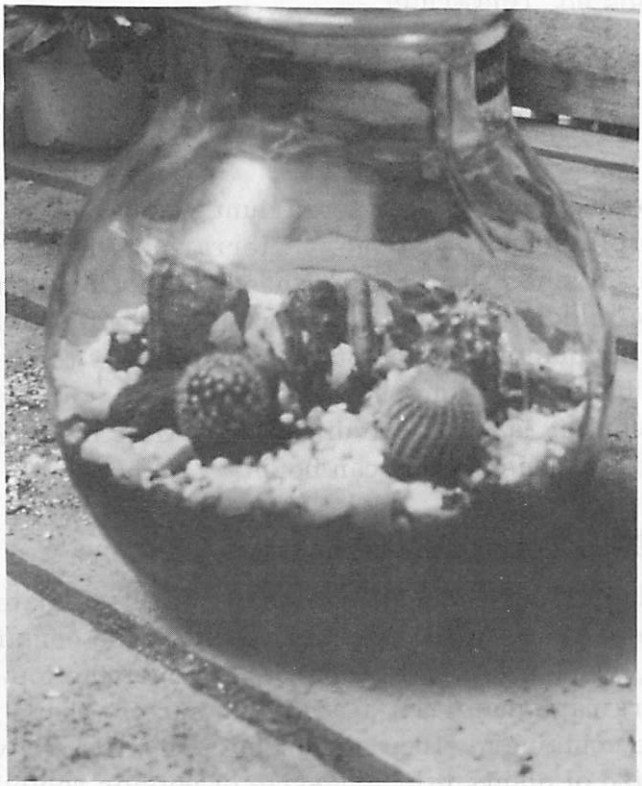
Scientific Name	Common Name
Hieracium species	Hawkweed
Antennaria rhodantha	A roadside weed
Fragaria virginiana	Wild strawberry
Lichens	From rocks, stones, etc.
Lycopodium species	Mosses
Juniperus species	Wild juniper
Fern species	Fern
	grass species
	fungi

Desert Gardens

Scientific Name	Common Name
Cactus	Cactus
Aloe species	Aloe
Sedum species	Sedum--creeping charlie or stone cap
Agave species	Agave
Sansevieria species	Snake plant
Euphorbia splendens	Crown of Thorns
Haworthia spp.	
Kalanchoe spp.	Kalanchoe
Mesembryanthemum	Stone Plants

Tropical Gardens

Scientific Name	Common Name
Philodendron spp.	Philodendron, creeping
Hedera helix	English Ivy
Cissus rombifolia	Grape Ivy
Peperomia spp.	Peperomia
Sansevieria spp.	Snake plant
Tradescantia spp.	Wandering Jew
Croton spp.	Croton



Tropical Gardens (Continued)

Draceana spp.	Draceana
Podocarpus spp.	Podocarpus
Woodsia spp.	Rock ferns
Aglaonema simplex	Chinese evergreen
Pittosporum spp.	Australian laurel
Howea, Phoenix	Palms in juvenile form
Begonia spp.	Small leaved, strawberry begonia

The plants listed above are only a few of the many varieties that can be grown in terrarium culture.

Making the Terrarium

Assemble on a table the container (glass bowl, bottle, aquarium, other), drainage material, soil mixture, moss, rocks, plants, and decorations.

Decide whether your terrarium will be viewed from all sides or just one. A terrarium viewed from all sides should be mounded with taller plants in the middle and the sides sloping down with lower growing plants. On the other hand, if your terrarium is to be viewed from one side, mound the soil so that the planting faces in one direction. After deciding on the view, construction can begin.

Planting your Terrarium

Place about 1/2 inch or more of drainage material on the bottom, being sure to shape it to the container. Next, place a layer of prepared soil over the top of the drainage material, again being sure to shape it to the container. The depth of the soil will vary with the size of plants selected--size of pots or rooted cuttings.

Scoop away soil and place the plants. Try to firm them up by gently tamping the soil around the roots. Allow room between plants to permit growth. After planting, smooth out the soil and place moss, colored stone, pebbles or lichen covered sticks in the terrarium.

For beginners, a wide-mouthed container is best. A bottle garden is more difficult to make as plants must be small and working space is at a minimum. Long bamboo or metal rods are helpful in making this type of garden arrangement. When planting, be sure to firm plants into the soil.

After planting and decorating, water your creation with a bulb or mist sprayer. At this time wash soil from the plants and from the sides of the container. As you apply water, notice how it penetrates into the soil and drainage layers. Apply only enough water to wet the soil. Overwatering will be detrimental--so this step is important.

Finally, clean off the outside of the terrarium. Leave the cover off for a day or so to allow excess moisture to escape. Then cover and allow the terrarium to equilibrate. If it contains the correct amount of water, a light haze of moisture will appear on the covering. If heavy condensation occurs, partially remove the cover to let some water evaporate.

Care of the Terrarium

Once your terrarium is planted, little care is necessary. A terrarium in bright sunlight will be easily killed. A north window or diffused light are preferred locations for a terrarium in the home.

Water your terrarium only as needed. Observe the soil through the glass container. Look for changes in color or dampness so you can determine when to add water. House temperature plus the cover will determine the amount of water you apply and frequency. A terrarium is easily overwatered. If this happens, remove the cover and allow the excess water to evaporate.

Another factor to consider is the plant species and the color of the container. Tinted containers may need more light at different periods of the year.

Temperatures within the container should be adjusted by site selection and the opening and closing of the container cover. A woodland garden will survive better at cool temperatures (60-65 degrees F.) while tropical gardens prefer 70 degrees or higher.

Keep terrariums healthy by removing dead leaves and plants, and prune as necessary. Insects can be controlled with minute droplets of diluted insecticide or by replacing the plants. A bug bomb containing pyrethrum may control some insects. Mold or fungus growth can be controlled by the use of a fungicide such as captan and/or adjusting the humidity within the container.

A terrarium can be a learning experience for everyone whether in city, suburban or rural areas. They may be purchased already assembled or planted by the individual. It is an excellent way to learn the principles of horticulture and ecology in your own home.