



Terrarium Gardening

A terrarium can change how you see the world. Terrariums bring greenery indoors and create a compact ecosystem for close-up viewing. This technique offers gardeners with limited space the opportunity to grow a variety of plants in a controlled environment. It is also an excellent tool for teaching children about the water cycle, as it demonstrates evaporation, condensation, and precipitation as well as photosynthesis.

Types

There are two types of terrariums, distinguished by the container used: open and closed systems.

Open-system terrariums use containers with a wide opening, such as a large glass bowl. These terrariums generally maintain lower humidity and are well-suited for plants from dry regions.

Closed-system terrariums use a sealed (or nearly sealed) container, such as a lidded glass jar or one with a narrow opening. You can also be creative and use a shallow bowl upside down as the cover. Closed-system terrariums can be surprisingly easy to maintain once their ecosystem is established.

Supplies

Glass containers -- You can choose from many sizes and shapes. While purchasing glass containers is a viable option, thrift stores and local garage or estate sales are also good places to find inexpensive and unique pieces.

Decorative accessories can enhance the design theme. These items may be ceramic, glass, metal, or plastic—anything impervious to moisture. They can play a significant structural role in the design.

Rinsed gravel -- Depending on your preference, the color of the gravel can be coordinated with your plant selections.

Planting medium -- Use freshly purchased potting mix formulated for indoor plants. Do not use soil dug from a garden, as it may introduce disease, insects, and weed seeds! If your plant selection includes a carnivorous plant, use a low-nutrient, acidic medium.

Charcoal – Activated charcoal can filter out toxins, prevent odors, and reduce mold growth.

A plastic screen – Place it between the charcoal and the medium to keep the layers in place.

Assembling

- Lay the rinsed gravel, about 1 inch thick, across the entire bottom of the container.
- Activate the charcoal by rinsing it with distilled water. Spread ½ inch of the rinsed charcoal over the gravel.
- Prepare the plastic screen by cutting it to cover the entire charcoal area.
- Lightly moisten the planting medium, then spread about 2 inches of it over the screen.
- Add plants.

Plant Selection

These are some examples of plants. Cacti and succulents work well for open-system terrariums, while plants that enjoy a humid environment are good matches for closed-system terrariums. In general, choose plants that are slow-growing and suitable for the size of your container.

Plants for Open Systems		Plants for both Open and Closed Systems	
Botanical name	Common name	Botanical name	Common name
<i>Aeonium arboreum</i>	Aeonium black rose	<i>Saintpaulia ionantha</i>	African violet
<i>Barbadensis miller</i>	Aloe vera	<i>Ficus pumila</i>	Creeping fig
<i>Sedum morganianum</i>	Burro's tail	<i>Fittonia verschaffeltii</i>	Nerve plant
<i>Cactacea</i>	Cacti	<i>Peperomia caperata</i>	Miniature peperomia
<i>Crassulaovata</i>	Jade plant	<i>Pteris cretica</i>	Ribbon fern
<i>Euphorbia tirucalli</i>	Pencil plant	<i>Saxifraga samentosa</i>	Strawberry begonia

Caring for Your Terrariums

Place your terrarium in medium to bright indirect light. Avoid locations that receive direct sunlight. Avoid fertilizer as it can lead to crowding in the container. Check on your terrarium every two to three weeks. A mister is highly recommended for adding water to the ecosystem. For a closed terrarium, misting the plants initially will help start the water cycle. For open terrariums, watering will be minimal due to the succulents' and cacti's needs.

Maintaining cleanliness is key. High humidity in enclosed spaces can lead to bacterial growth and fungal issues. Keep the terrarium clean by removing debris, dead leaves, moldy moss, or dead plants. On occasion, plants may need to be pruned or removed if they grow too large.

Resources

- How to Create and Care for a Terrarium, <https://yardandgarden.extension.iastate.edu/how-to/how-create-and-care-terrarium>
- Terrariums, <https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pub/pdf/agguides/hort/g06520.pdf>
- Terrariums, <https://www.purdue.edu/hla/sites/yardandgarden/wp-content/uploads/sites/2/2016/10/HO-13.pdf>
- Contact the OSU metro area Master Gardener™ Helpline for answers to your gardening questions. Find links at: www.metromastergardeners.org
- Visit www.cmastergardeners.org/10-minute-university for 10-Minute University™ resources

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