



Try Some Winter Gardening With a Terrarium

Bring your gardening skills indoors by creating a terrarium or two

by Carol Barany for Yakima Valley Master Gardeners

As the story goes, amateur naturalist Dr. Nathaniel Ward was performing an experiment involving a moth chrysalis in a sealed glass bottle in 1869. While waiting for the moth to emerge (it never did), Ward observed fern spores germinating in some soil inside the bottle. Ever curious, Ward moved the sealed bottle to a window to see what would happen next. The ferns survived for three years without additional watering.

In a “Eureka” moment, Ward realized that he had created a miniature ecosystem that was largely self-sustaining. Through transpiration and condensation, the plants were watering themselves. He named his discovery The Wardian Case, and the world had its first terrarium.

You can buy a special container, but if you add a tightly fitting lid to a brandy snifter, gallon pickle jar, or fish aquarium, you’ve got yourself a terrarium. Larger containers

are easier to plant, grow, and maintain than small ones. An opening large enough for your hand is a plus.

A few plants and perhaps some small seashells or driftwood from your last vacation arranged in a sparkling glass container can light up a room. And terrarium building is a great way to teach children about how plants grow. Adding some tiny dinosaurs or action figures to their mix makes it even more interesting.

An array of plants can be grown in a terrarium, but keep a few things in mind when you choose yours. The best candidates are naturally dwarf, slow-growing, and tolerant of high humidity. Think rainforest. Avoid combining plants that prefer low light with those that need more.

Once you have your plants, clean and sanitize the glass container and allow it to dry.

Spread a 2" layer of gravel or small stones on the bottom of the container to serve as a dry well for drainage. Next, layer ½" of activated charcoal or horticultural charcoal over the gravel. The charcoal filters the water, sweetens the soil, and prevents stagnation and fungi that can grow in all containers that lack drainage holes. Moss may be placed over the charcoal to prevent the next layer, the soil, from sifting into the drainage area.

Pre-moisten a sterile potting mix so that it holds its shape when squeezed, but is far from saturated. The thickness of the soil layer depends on the size of the terrarium and the plants you're using. Plants in 3" pots need soil that is 2-3" deep.

Odd numbers of plants make visually appealing combinations, as do plants with a variety of leaf shapes and colors. Place the plants side by side to fine-tune your arrangement. Tamp the terrarium soil down lightly to eliminate air pockets, and dig the planting holes. Make sure that all the roots, but not the plant stems or crowns, are buried in the soil. Firm the soil around the plant, leaving no air pockets. I like to top dress the soil with fresh, living moss I peel from the soil in my daughter's garden in Olympia.

If adding rocks, sticks, or dinosaurs as adornment, sanitize them first.

Once everything is in place, mist the walls of the interior lightly to rinse away any dust or soil. You can now “water in” the terrarium to settle the plants. Use a slow, light hand. Water should penetrate the soil to the depth of the roots, with only a small amount entering the reservoir. Keep the container uncovered until the foliage is completely dry. Then put the lid on and place in the terrarium in bright but indirect light, such as a north or east facing window. Too much direct sun can burn the plants, and raise the temperature inside the terrarium high enough to cook and kill them.

It may take a few weeks to establish a “rain cycle” within the terrarium. It’s normal for the walls of the terrarium to fog the first few days. If that happens, briefly removing the lid will vent excess humidity. Replace the lid once the condensation evaporates. Eventually, rather than forming a fine fog on the interior surface of the terrarium, water will condense in a light film and, then, trickle down the sidewalls back into the potting medium. Established terrariums will infrequently require additional water.

Some plants will eventually outgrow their space. A little trimming or pinching can make them more compact again.

Succulents, cacti, and other xeric plants will not live long in the humidity of a closed terrarium. You can find instructions online for growing these plants in open terrariums or dish gardens.

Spring arrives March 20. Making a terrarium in January gives a gardener something to do until then.