

DIY Bottle Terrariums Make Great Holiday Gift

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URBANA – Winter is that time of year where gardeners rest and plan for spring. But with the holidays, why not make loved ones plant gifts?

Impossible bottles, or bottles with an object inside that doesn't seem like it can fit through the bottle's mouth, have been things of wonder throughout history with ships or decks of cards being built inside bottles. Bottle terrariums are similar feats of wonder using plants. Terrariums are either tightly closed or open transparent containers with plants inside. Credited for inventing terrariums, Dr. Nathaniel Bagshaw Ward used hermetically sealed glass containers with soil inside to better observe the change of the chrysalis of sphinx moths.

“Bottle terrariums are a creative way to use plants,” says [Bruce J. Black, University of Illinois Extension](#) horticulture educator. “Recycling old bottles and turning them into works of art is fun and easy.”

When designing a bottle terrarium there are a few questions to think about first. Will it be an open or closed terrarium? What type of container is wanted? What is the theme? What plants –tall or small –will be used? Are there any additional decorations?

Closed terrariums will act like a greenhouse and be a mini-ecosystem. Bottle terrariums with caps, corks, or tightly fitting lids will trap the moisture inside where it will cycle. Open containers are more of a display allowing for larger and taller plants.

Any transparent container can be used as a terrarium. Glass and plastic are the two most common mediums. Besides bottles, commonly used items are fish bowls, fish tanks, jugs, jars, or light bulbs.

“My favorite part is coming up with a theme,” Black says. “Developing a theme based on an event, season, movie, or genre can help to tell a story and make your terrarium unique.”

To build a terrarium, first, start off with a drainage material such as gravel or stones. This allows water to pool without soaking the soil. When using foraged rocks or shells, boil them for five minutes at a rolling boil to sterilize them and prevent disease or insect issues. Allow them to cool before using.

Add activated charcoal to help eliminate chemicals that could harm the plants. Activated charcoal can be found at garden centers. It absorbs any unwanted chemicals that would be taken up by the plant and harm it. Next, add a pre-moistened potting mix suitable for the chosen plants. The gravel, activated charcoal, and potting mix should make up about a quarter of the container volume.

Many plant types such as Kalanchoe, Sempervivum, Crassula, Echeveria, Sedum can be used in terrariums. To add the plants, skewers, pipe cleaners, and long-handled tweezers may be needed depending on the size of the container’s opening. When placing plants, don’t let the foliage touch the sides of the container and wipe any debris off plants with a clean paintbrush.

Clean any figures, toys, glass, pebbles, or ceramic structures with an alcohol or 10% bleach solution and allow them to dry. Dried flowers or wood may also add to the story. Supplies can be purchased from dollar stores, craft shops, and local garden centers.

To care for the new terrarium, place it near a south or western facing window or near supplemental lighting, not in direct light. Most terrarium plants are in the medium-light

requirement category. Watering will vary. Closed, tightly sealed containers will only need to be watered every four to six months. Wilting plants and bottles with no condensation are a sign watering is needed.

Open containers need to be watered more often depending on humidity levels in the home. For maintenance, don't overwater, remove any dying leaves, turn the container weekly to keep plants growing normally, and prune or pinch plants that get tall.

“Making terrariums is a great family or friends’ activity,” Black says. “I enjoy making them with youth and they make great gifts with the holidays coming up.”

For more information, watch a Creating a Bottle Terrarium webinar at go.illinois.edu/BottleTerrarium.

SOURCE: [Bruce J. Black](#), Horticulture Educator, Illinois Extension

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