



## How-To Terrarium

- We'll cover what a terrarium is and isn't.
- Best plants for a terrarium.
- How to build a relatively maintenance-free terrarium.

# What is a terrarium?

A terrarium (plural: terraria or terrariums) is usually a sealable glass container containing soil and plants, and can be opened for maintenance to access the plants inside. Closed terraria create a unique environment for plant growth, as the transparent walls allow for both heat and light to enter the terrarium. The sealed container combined with the heat entering the terrarium allows for the creation of a small scale water cycle. This contributes to creating an ideal environment for growing plants due to the constant supply of water, thereby preventing the plants from becoming over dry. In addition to this, the light that passes through the transparent material of the terrarium allows for the plants within to photosynthesize, a very important aspect of plant growth.

*Thanks Wikipedia!*



# Who thought of this?

The first terrarium was developed by botanist **Nathaniel Bagshaw Ward** in 1842. Ward had an interest in observing insect behaviour and accidentally left one of the jars unattended. A fern spore in the jar grew, germinated into a plant, and this jar resulted in the first terrarium. The trend quickly spread in the Victorian Era amongst the English. Instead of the terrarium, it was known as the Wardian case.

According to a story, Ward hired carpenters to build his Wardian cases to export native British plants to Sydney, Australia. After months of travel, the plants arrived well and thriving. Likewise, plants from Australia were sent to London using the same method and Ward received his Australian plants in perfect condition. His experiment indicated that plants can be sealed in without ventilation and continue thriving.

*Thanks Wikipedia!*



# Types of enclosed “gardens”

- **Terrarium** – A terrarium (plural: terraria or terrariums) is usually a sealable glass container containing soil and plants, and can be opened for maintenance to access the plants inside.
- **Aquarium** - is a vivarium of any size having at least one transparent side in which aquatic plants or animals are kept and displayed. Fishkeepers use aquaria to keep fish, invertebrates, amphibians, aquatic reptiles such as turtles, and aquatic plants.
- **Vivarium** - is an area, usually enclosed, for keeping and raising animals or plants for observation or research. Often, a portion of the ecosystem for a particular species is simulated on a smaller scale, with controls for environmental conditions.
- **Riparium** - a new kind of planted aquarium system that recreates the wet habitats found along the edges of lakes, rivers, ponds and streams. This zone hosts marginal plants, which are rooted in the saturated soil at the edge of the water, but hold their leaves up in the air. Unlike a paludarium however, ripariums do not have a significant land portion, making them unsuitable for most amphibians.
- **Paludarium** - a type of vivarium that incorporates both terrestrial and aquatic elements. Paludaria (or paludariums) usually consist of an enclosed container in which organisms specific to the biome being simulated are kept. They may be maintained for purely aesthetic reasons or for scientific or horticultural purposes. The word 'paludarium' comes from the Latin word 'palus' meaning marsh or swamp and '-arium' which refers to an enclosed container.

# Types of terrariums

Anything you can dream up!



# More terrariums



Actually, this is a paludarium



# Plants to Consider

Rex Begonias



Mood Moss - Dicranum



Hemionitis arifolia fern



Ficus pumila quercifolia



Pepperomia



and many more!

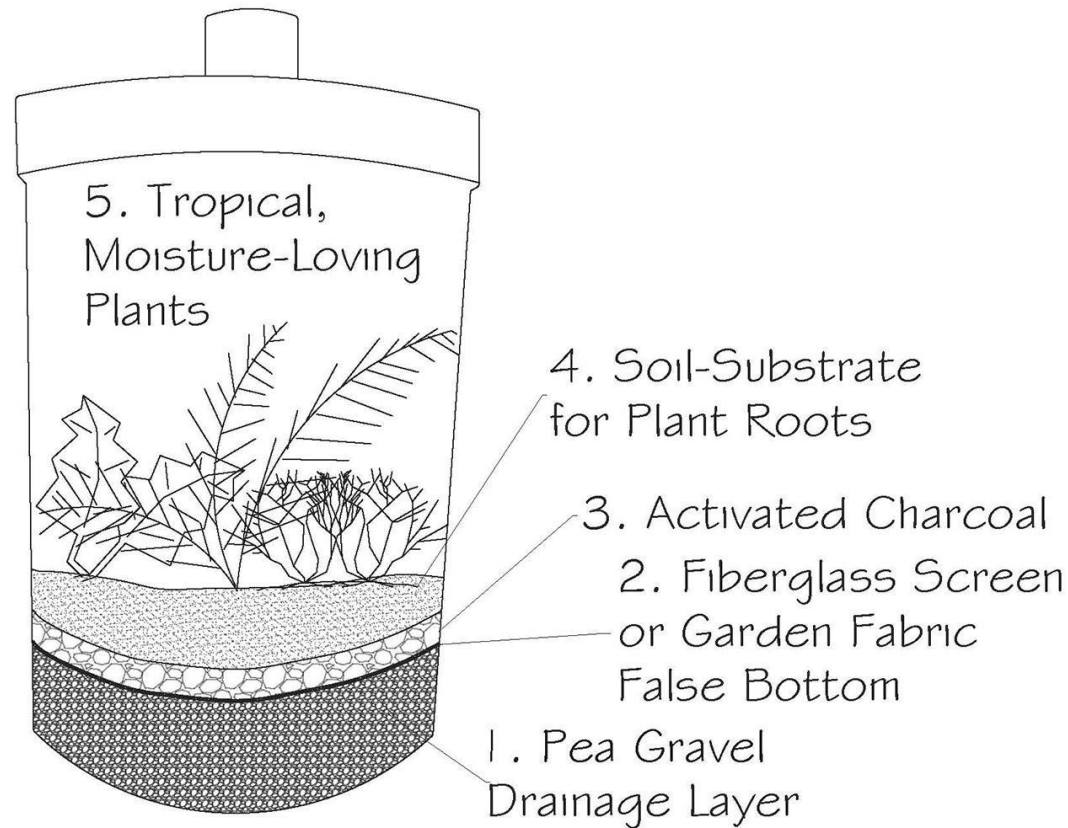


# Care

- Be sure to use DISTILLED WATER for your terrarium when it no longer has moisture on the inside of the glass or things look a bit dry.
- If your plants get leggy - they need more light.
- If your plants get bleached out - they need less light.
- Don't put your terrarium in a full-sun window - it will cook. Glass magnifies and traps heat just like your car on a bright, summer day.
- If your plants are getting crowded, don't be afraid to prune and propagate your cuttings!



# Build Diagram



# Resources

## **Glass:**

Goodwill Industries - various locations around the Portland area

Portland Flower Market - you have to own a business and pay for membership

## **Plants, soil, charcoal, horticultural sand, pea gravel:**

Anywhere that sells tropicals that thrive in a humid environment, such as Portland Nursery, Arium Botanicals, Local Branch, Pistils, etc.

## **Long Tweezers/Tools:**

Amazon.com

## **Rocks/Crystals:**

Ed's House of Gems

## **Miniatures:**

Joann's, Michael's, Portland Nursery

## **Lighting/LED Strips:**

American Agriculture - 24" and 48" lighting strips

## **Pre-Built Terrariums:**

Roosevelt's Terrariums

Hollye

## **Instructional Videos:**

Serpa Design on YouTube

# Final Thoughts

For me, a terrarium is a little slice of the forest you can bring into your home.

These little glass gardens make me happy.

If they seem like they are having an issue – it is an opportunity to try out new plants and a new landscape.

Let your imagination guide you!

