

Make Your Own NATURALISTIC TERRARIUM



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Step 1

COLLECT YOUR MATERIALS

Most of the materials needed for building a terrarium can be collected from outside. Explore the natural surroundings in your neighborhood and find materials that you like. Stream beds, creek banks and wooded areas are great places to find natural materials. Remember to only collect what you need. Be sure to ask permission from property owners before you collect. Check your local park rules before looking in parks.

ITEMS YOU WILL NEED:

1. Small River Pebbles
2. Rocks or Slate
3. Driftwood
4. Moss
5. Botanical items such as: bark, pine cones, seed pods, acorn caps, etc.



CLEANING AND SANITIZING YOUR MATERIALS:

Rocks and Slate:

Give these a good scrub in hot water with regular dishwashing detergent and a splash of bleach.

Driftwood:

Give these a quick 15 minute soak in hot mild bleach water and rinse thoroughly. Move to an oven-safe tray and bake at 250 degrees for 1.5 hours. This will remove any unwanted pests and mold.

Moss:

Fill a shallow container with BOTTLED or DISTILLED water and give these a good rinse. The goal here is to remove any unwanted pests. Dechlorinated and salt-free water is necessary because moss is very sensitive to salt and chlorine.

Botanicals:

Place in a microwave safe dish, cover with water, and microwave for four minutes. This will rid your botanicals of any unwanted pests or parasites.



Step 2

SELECT YOUR CONTAINER



Select a clear glass container that has a wider bottom than the top opening. This will help your container retain humidity, which is important for terrarium health.

Choose a container that is pleasing to your eye and coordinates well with your home decor. The container used here was purchased from a local garden center for under \$15.

It is approximately 7 inches tall and 9 inches wide.

Notes: Clean your container with warm, soapy water and a splash of bleach.

If you plan to plant cacti or succulents in your terrarium, choose a container that is shallower with a wider opening.

Pro Tip:

Select a container that you can fit your hand inside. This will eliminate the need for specialized tools.

GET CREATIVE!

Large mason jars, glass pitchers, and glass canisters from the pantry will make excellent containers for your terrarium!



Step 3

PREPARING YOUR CONTAINER

ITEMS YOU WILL NEED:

- River Pebbles (see Step 1)
- Plastic/Fiberglass Window Screen (not metal)
- Horticultural Charcoal
- Scissors
- Small Paint Brush



STEP A

The Drainage Layer

Fill the bottom of your container with clean river pebbles. You will want approximately **1 inch of pebbles** in the bottom of your container.

Since your container does not have a hole for water to escape, the stones act as a drainage layer, so your soil mix isn't sitting in a pool of water. It also helps improve humidity.



STEP B

The Soil Barrier

Cut a piece of window screen slightly larger than the bottom of your container. This will ensure no soil mix gets into your drainage layer. Place it on top of the layer of river pebbles.

You can purchase fiberglass window screen at any hardware store. You might also have some lying around in the basement, just be sure to give it a good wash and rinse!

PRO TIP:

If you don't have, or don't want to purchase screening, a coffee filter will also work. Since it is made of a water soluble materials, it will only last up to a year in your terrarium.

Step 3 continued

PREPARING YOUR CONTAINER



Pro Tip:

Horticultural charcoal was used for this, but you can also use any **lump hardwood charcoal** that you would normally use for your grill. Just wrap it in a towel and break it up into fine pieces with a hammer.

STEP C

The Charcoal "Filter"

Place your charcoal on top of the window screen that you placed into the container.

You will need enough charcoal to create a **1/2 inch layer** in the bottom of your container. Use a small paint brush to distribute the charcoal into an even layer.

This charcoal layer will help absorb any impurities and excess minerals in your terrarium. It replicates the natural filtration found outdoors.

It will also help keep your terrarium fresh and smell free.



Step 4

MIXING YOUR SOIL SUBSTRATE

ITEMS YOU WILL NEED:

- Organic Potting Soil (fertilizer free preferred)
- Fine Orchid Bark
- Long Fiber Sphagnum Moss
- Large Bowl or Container for Mixing
- Large Metal Spoon
- Distilled or Bottled Water



RECIPE:

2 parts organic potting soil
1 part sphagnum moss
3/4 part fine orchid bark

Break apart the sphagnum moss into smaller pieces. Spray with a small amount of distilled or bottled water until damp.

Mix all ingredients together in a large bowl or container. You can use a large metal spoon or your hands. If you like playing in the dirt, hands are preferred.

Spray the soil mixture with distilled or bottled water until just moist. You don't want the soil to be soaking wet.

NOTE: If you want to plant cacti or succulents in your terrarium, substitute 1 part coarse sand in place of 1 part soil.

PRO TIP:

When measuring your soil ingredients use any containers that are the same size. The containers shown above are about 2 cups each. This yields about 8 cups of soil substrate.

Make a little more mix than you think you'll need for your container. It's better to have a little more than not enough.



Step 5

BUILDING THE HARDSCAPE

ITEMS YOU WILL NEED:

- Soil Substrate Mix (see Step 4)
- Stones and Slate (see Step 1)
- Driftwood (see Step 1)
- Large Towel
- Small Soft Bristle Paint Brush
- Metal Spoon
- Metal Straw or Wooden Dowel



- Gather all of your materials in one place.
- Find a large table or surface to work on so you can spread out. Working on the floor is great too. Any hard, stable surface will do.
- A large towel is helpful at catching dirt and debris and makes cleanup easy.

BUILDING THE TERRAIN

1. Place approximately **2 inches** of the soil substrate mix on top of the charcoal layer. Gently press it down into an even layer.
2. Start placing your rocks, slate or other hard materials. Look for inspiration when you are gathering your materials. These materials were collected from a stream bed. **Take reference photos while you are out collecting your materials.**
3. Pay attention to scale. Make sure your materials match the scale of your container. If your materials are too big for your container, the look will be off balance.
4. Play around with different heights. You want to capture movement in your terrain. Make some places higher, some lower.



Step 5 continued

BUILDING THE HARDSCAPE



Note: After you are done placing your materials, use the soft bristle brush to brush soil and debris away, or the metal straw to gently blow it away.

GET CREATIVE!

There is no right way to design the hardscape in a terrarium. Let the materials you find lead the way. Build a desert terrain or a rain forest scene!

PRO TIP:

If you are having trouble keeping an item where you want it, use gel super glue to hold in place.

Once dry, it is waterproof and totally safe for plants (and animals for that matter.) You can even use it to glue tricky air plants into place.

ADDING DEPTH

1. Add smaller rocks to the terrarium. Place them in a way to replicate a natural environment.
2. Add additional pieces of driftwood. Focus on movement. All pieces of driftwood in this design are facing the same direction to replicate that movement.
3. Make your terrarium terrain slightly higher in the back for a better sense of depth. You can see this referenced in the side view photo below.
4. Use the shape of your container as a guide. This container is round so the rocks were placed in a curved pattern.
5. Add more soil behind the rocks to build up the "landscape".
6. Add more soil to the front of the landscape to hide some of the rocks hard edges. This softens the look and makes it appear to look more natural.



Note the downward slope of the terrarium and the depth it adds.

Step 6

PLANTING THE TERRARIUM

ITEMS YOU WILL NEED:

- Plants
- Moss
- Metal Spoon
- Distilled or Bottled Water
- Metal Straw

Note: If you are creating a desert theme or using succulents or cacti, forgo the use of live moss. They have opposite care requirements and will not survive together.

SELECTING YOUR PLANTS

1. Select plants that you like. The plants featured to the left are: Episcia 'Chocolate Velvet' (an African violet relative) and cuttings from an established Peperomia trinervis 'Bicolor'.
2. Decide on a centerpiece plant. In this case, it is the Episcia that will be front and center.
3. Select plants that will retain a sense of scale and stay small if you are planting in a small container. Plant recommendations will be listed on the next page.
4. Carefully remove most of the existing soil from around the roots of your plants. Be careful not to damage the roots.



ADDING THE PLANTS

1. Using your spoon or your hands, carefully dig a hole in the soil mix big enough to accommodate the root ball of the plant.
2. Use the paint brush to carefully move the soil mix around the roots of the plants.
3. Use the metal straw to carefully tamp down the soil mixture around the roots of the plants. If given a very gentle tug, the plants should not easily dislodge.
4. Break up the moss and add it to exposed soil. Gently press it down with the metal straw. Make sure to keep your moss moist before and during use in this project.

PRO TIP:

Sometimes ferns will sprout from your collected moss. You could even collect a small fern from outside to use in this project, but it will eventually outgrow a small container.



Step 7

ADDING THE DETAILS & WATERING

BOTANICALS AND TEXTURE

Now is the time to add your collected botanicals and smaller rocks. These enhance the look of the terrarium by creating a natural aesthetic.

Add some of the small river pebbles to maintain a sense of scale and variety. Nothing in nature is the same exact size or shape! Select materials that have the same color tones so that everything looks cohesive and nothing stands out.

WATERING

Generously spray the terrarium with distilled or bottled water free of added minerals. Since your container does not have a way for water to drain, this will prevent the harmful build up of chlorine, excess salts and minerals.

The soil should be moist but not soaking wet. When you see some water seep through the charcoal into the drainage layer of rocks, stop watering.



PLANT RECOMMENDATIONS

Smaller Terraria

- Mini African Violets
- Peperomia caperata
- Peperomia rubella
- Selaginella (club moss)
- Baby Tears (will need to be trimmed)
- Ferns (will need to be trimmed)
- Air plants
- Echeveria (succulent)
- Small cacti

Larger Terraria

- Rex Begonia
- Fittonia "Nerve Plant"
- Pilea 'Moon Valley Friendship Plant'
- Pilea cadierei "Aluminum Plant"
- Ferns (will need to be trimmed)
- African Violets
- Hypoestes "Polka Dot Plant"
- Creeping Fig
- Any succulent or small cacti

CARING FOR YOUR NEW TERRARIUM

Light: Most terrarium plants will do well near windows that get soft, bright light. They should not be placed in full sun. East facing windows are ideal. Western and southern exposures are good options as well, just keep terrariums a few feet away from the window. Succulent and cacti terrariums need a few hours of direct sunlight each day. The sun's rays through the glass will cause excess heat in the terrarium so watch it carefully.

Water: Terrariums only require the occasional watering. Use a small watering can or a spray bottle to water your terrarium. If using a watering can, don't water directly on the plants - water down the inside surface of the container. Don't oversaturate the soil. It is important to keep the water level below the screen, so the plants roots do not sit in water. Always use distilled or dechlorinated water.

Pruning: Terrariums will require very minimal pruning. If plants begin to get too big and unruly, use a sharp pair of scissors that have been disinfected with rubbing alcohol to keep them in check. Pruning plants leads to bushier, healthy growth.

Fertilizing: Do not fertilize your terrarium for the first few months after planting. After 4-6 months you may fertilize your terrarium during a light watering with a diluted, half strength fertilizer.

Cleaning: Clean the outside of your terrarium every two weeks with a microfiber cloth. At that time, clean the inside of the glass with a wet paper towel. Keeping dust and debris from the glass will allow maximum light absorption and photosynthesis for your plants. If any mold appears, keep it in check with a quick spray of water to keep spores from spreading. The terrarium will eventually stabilize and mold will disappear.

