

Making a Terrarium

Terrariums are a fun way to grow little ecosystem designs indoors to enjoy year round.

With proper care and maintenance, your terrariums can last for several years.

Just follow these simple steps and good luck!

Materials Needed:

- Clear glass or plastic container (fishbowl, jar, bottle, etc.), clean & dry
- Pea gravel and/or horticultural sand
- Activated charcoal
- Green or sphagnum moss
- Soil (make sure it is sterile)
- Decorative rock or sand for top dressing (optional)
- Small plants that have similar light, watering, and care needs
- Decorative stones, figurines, or items (optional)
- Small scoop or funnel
- Spray bottle and a syringe, or straw, or narrow spout watering can



Layering Directions:

1. Add 1" to 2" of horticulture sand or pea gravel to the bottom of the dry container. You can also add a layer of each to increase the drainage layer.
2. Add 1" of activated charcoal over the sand/gravel. This will help absorb extra moisture, odors, and inhibit bacterial growth.
3. Add 1/2" to 1" layer of sterile green or sphagnum moss over the charcoal. This will help prevent the soil from mixing into the drainage layer.
4. Add pre-moisten soil (make sure it's not too saturated and muddy) above the moss layer. You want to make sure you'll have enough of a soil layer to plant your plants and allow for healthy growth.

Planting Directions:

1. Remove the plants from their pots and the excess soil around their roots. Cut away any pot-bound roots. If a plant is too large for the container, in size or root mass, divide the plant up and prune its foliage to fit the size of the container.
2. Create a planting hole in the soil and place each plant where their leaves won't touch the glass. Leaves touching the glass could result in the plant staying too wet & rotting.
3. Gently tamp the soil around the base of each plant to secure it.
4. Water the sides of the container (avoid over saturating the plant foliage) using a spray bottle with a coarse stream and use a syringe, straw, or watering can with a very narrow spout to water the soil.

Additional Decorative Options:

- Add a top dressing of sand, gravel, decorative pebbles or glass over the soil.
- Add decorative items such as larger stones, crystals, figurines, etc.
- Add preserved moss for a forest or green meadow theme.

Care and Maintenance:

- After planting and watering, place your terrarium in bright indirect light. You want to make sure that it is indirect since direct light will magnify and heat up the glass, possibly causing your plants to burn. Also, keep in mind that terrariums can dry out faster if placed near heat sources or air conditioning.
- For an open system terrarium, watering will need to happen more frequently than a closed system (has a lid). Depending on the conditions of your home and terrarium location, you may need to water once a week or every couple of weeks. Check for moisture in the drainage layers and soil. If plants begin to wilt and the soil is dry, it is definitely time to water. Use a syringe, straw, or a narrow spout on a small watering can to water around the plants and soil. If plants are wilting and the soil is wet, then there is too much water in the terrarium. If overwatering occurs, you can tilt your terrarium to one side to try and pool excess water and then absorb the extra water with a clean sponge/rag or paper towels.
- For a closed system terrarium, watering will happen less frequently. It could be every 3 to 6 weeks. Once the condensation “fog” on the sides of the container is no longer visible, it is most likely time to add some water. Open up the lid (this is good to do anyway about every 2 to 3 weeks to allow a system air refresh) and spray the sides of the containers, making sure to avoid getting the foliage wet. If the foliage does get wet, allow it to dry before replacing the lid. Once the lid is replaced, if you see a lot of water droplets form on the sides of the container (more than just condensation), open up the lid for about an hour to let it dry out.
- Pruning or replacing plants will have to happen more frequently in open systems - closed system plants grow slower. Prune plants that are starting to grow into each other and competing for space, or if they are pressed up against the sides. If the plant just becomes too large for the space, gently dig it out to replace it with something smaller.
- If you see any dead or dried leaves, flowers, or plants, make sure to remove them immediately. You don't want to encourage mold and fungi to grow in your terrarium.
- Pests can sometimes harbor in/on plants or can find their way in from outside. Fungus gnats are usually the most frequent unwanted pests. They love moist soil, so make sure you're allowing the soil to dry out an inch before watering again. A top-dressing of sand or rock can help hinder them from laying eggs under the surface of the soil. Mealy, aphids, thrip, and scale can be treated with insecticidal soap or a neem solution, in conjunction with wiping off the leaves. If plant pests are too severe, then removing and disposing of the plant is probably best.
- In most cases you won't need to fertilize your plants, as this encourages them to grow bigger in a confined space, but if you have had your terrarium for a while your plants may need a boost. Only fertilize when you see active growth and dilute your fertilizer to 1/4 strength. Add at the time of watering.

Extra Tips:

- Succulents and cacti will not thrive in a closed system (has a lid), they will end up rotting over time. Use succulent/cacti soil when planting. They also need bright light and can go longer without watering.
- Closed systems are best suited for tropical humidity lovers like ferns, moss, calatheas, orchids, palms, African violets, anthuriums, etc. Indoor potting soil works great in these systems.