What do I need?

A lidded glass container with air-tight seal

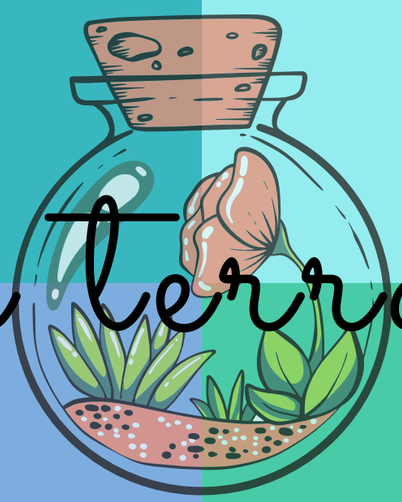
Small rocks

Activated charcoal*

Soil

Small plants suitable for humid environments, e.g. orchids, ferns and mosses.

*Activated charcoal, which prevents mould growth, can be bought in garden centres or online. If you can't find any you'll need to open your terrarium every so often to let air in and moisture out.



sealed terrarium

What do I do?

Take a look at page 2 to learn about the water cycle. Did you know that the water cycle happens on a really small scale inside your sealed terrarium?

Place a layer of small rocks at the bottom of your glass container to help water drain through your soil and prevent your plant from becoming water-logged.

Add a layer of activated charcoal to help prevent your plants roots from rotting from excess water.

Next, add a layer of soil on top of your rocks until your terrarium is about a third full.

Make a hole in the soil and plant your first plant. Repeat with any other plants you're using. Plants like mosses and ferns can be split into smaller plants to fit into your container. Be careful not to overcrowd it because plants need room to grow.

You can decorate the top of your soil with more rocks if you're feeling creative.

Now give your terrarium a small amount of water until you can see it trickling down through the layer of drainage rocks. Put the lid back on and place it somewhere bright but without direct sunlight.

To look after your terrarium, open it every 2 weeks for around 20 minutes to allow any excess moisture to escape. If you notice your plants begin to droop then use a spray bottle to add a little extra moisture.

Keep an eye on your terrarium and in time you will see drops of condensation form on the inside of the glass that will "rain" down onto your plant(s). As the roots absorb the water the plant will "breath" through respiration, sending water droplets and oxygen back into the container to form condensation again.

the water cycle

1. Water *evaporates* into the air

The sun heats up water in seas, lakes, rivers and on land, turning it into water vapour which rises into the air.

2. Water vapour *condenses* into cloud

When the water vapour has cooled down it turns back into tiny droplets of water in the sky, causing clouds to appear.

3. Water falls as *precipitation*

When the clouds get too heavy, they release themselves in the form of rain or snow.

4. Water *accumulates* on the ground

The rain water collects in rivers and lakes which eventually runs back into the sea. The cycle then begins again.