

Terrarium planting

How to make a small indoor garden in a jam jar. These are called Terrariums

You will need to build up the contents of the terrarium in layers, each layer is important for healthy plants

Gravel - About 1 cm - The gravel will allow somewhere for the water to drain to, so it does not sit in the soil, making it too wet for the plant roots

Charcoal (if you can find some) - a thin layer, less than $\frac{1}{2}$ cm - The charcoal helps to prevent too much mold and bacteria growing in your terrarium, we only need it because it is a small environment

Soil - about $\frac{1}{4}$ - $\frac{1}{3}$ of the height of the pot - provides nutrients and water for the plants and also gives them something for their roots to sit in to support the plant

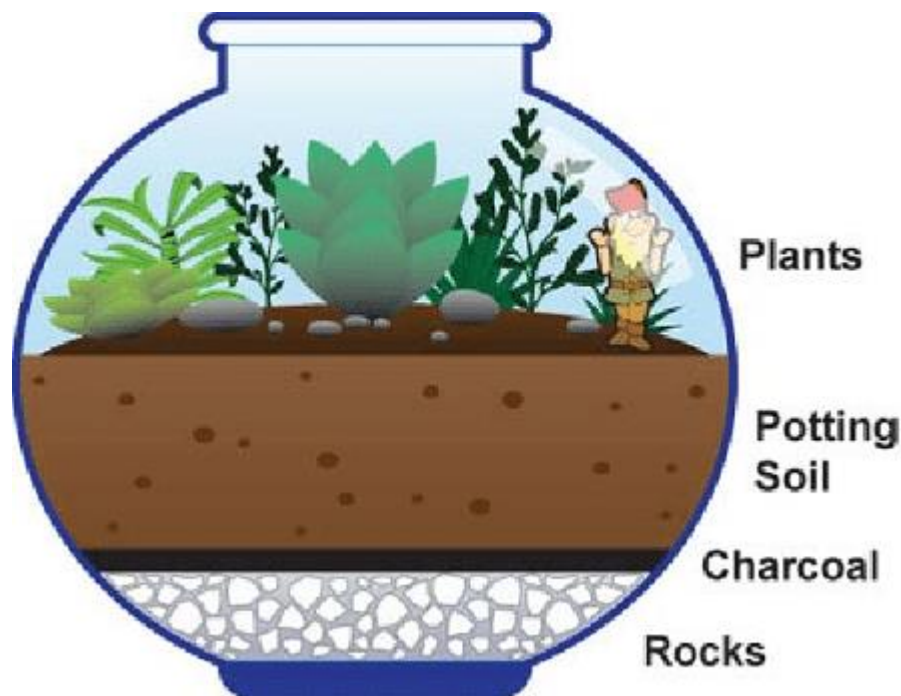
Plants/seeds - Think about how you would like your final garden to look, it may be hard to plant your plants but try to put them in the soil the right way up and without damaging them

Decoration - you can add a layer of decorative stones or a small ornament to finish the look.

Water - once your plants are in you should water your terrarium so the soil is moist and there is some water in the gravel at the bottom - Do not put too much water, it is easy to add more later

Lid - a lid will stop your garden drying out and keep a nice moist environment for your plants, it is not essential but you will have to keep it watered if you don't have a lid

In the end you should have something a bit like this



About your new Garden

Caring for your new garden

- Put your new garden somewhere bright like a windowsill where you can watch it grow
- If you keep the lid on your garden it shouldn't need much looking after.
- If it seems very dry you can top up the water, but just to the level of the gravel on the bottom, don't make it too wet!
- If you put too much water you can leave the lid off and it will slowly dry out, if you try to tip out the water you might make everything fall out

A Miniature Environment

Your new garden is a miniature version of the environment all around us and you can learn about some of the most important processes for life from it

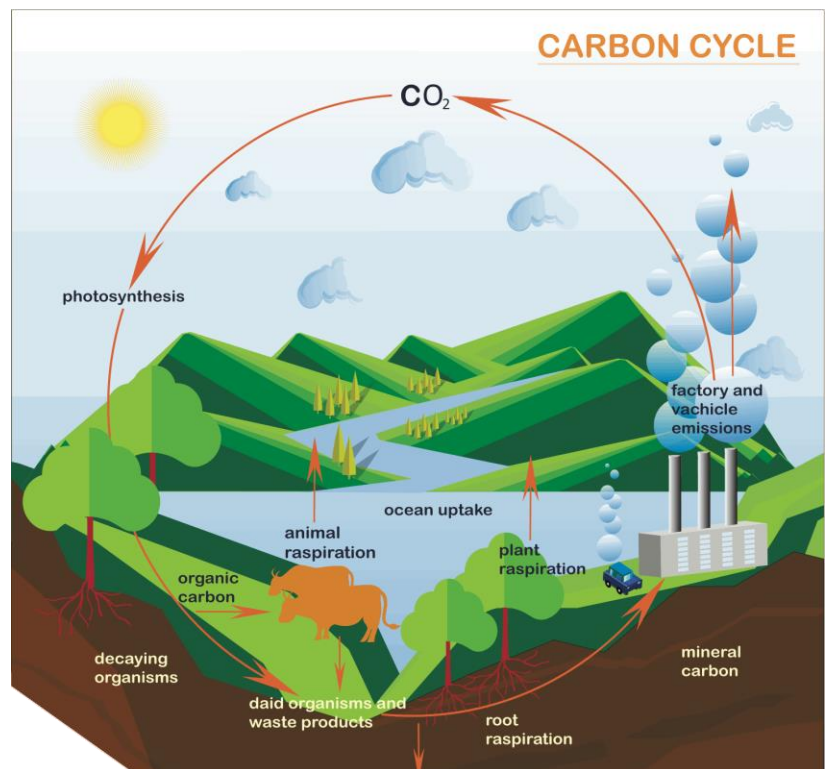
The Carbon Cycle

Plants use sunlight to take in carbon dioxide to make energy and give off the oxygen we use to breathe.

At night the plants will also use up some of the oxygen, releasing part of the carbon dioxide back into your jar.

In your enclosed container, the plants will continually cycle the carbon every day. As they grow some of the carbon will be used to make their leaves and roots and the carbon dioxide level will drop.

As leaves rot in the soil they will return carbon to the air in the jar and the cycle can continue



The Water Cycle

The water will be taken up by the plants and evaporate into the jar where it will condense on the sides and run back into the soil.

You should see condensation on the sides of the jar sometimes, especially when it is warm, this will run down back into the soil

This is a miniature, enclosed version of the water cycle which creates rain in the world around us.

