Build a Wormery

Help your kids discover the wonder of earthworms by building your own wormery! It's a brilliant hands-on experiment that will bring science to life and let your children learn all about what goes on underground

Earthworms are vital for keeping our soil nice and healthy. They drag dead leaves and plants underground, munch on them, and then recycle their nutrients back into the soil through their poo! As the worms burrow through the soil they mix it up, creating tunnels which allow air to pass through and water to drain away. All of this helps to create a rich, fertile soil which trees and plants need to help them grow. So these wriggly little worms have an important job to play!
Building your very own wormery is a great way to uncover the science behind how worms work. You'll get to see first-hand just what they're up to below the surface of the soil, which can really open little nature lovers' eyes to the importance of wildlife, big and small.

How long will it take?
Half an hour to set up and a couple of weeks of observation.

What you will need
- A big, clean jar with a large opening
- Sand
- Damp soil
- Dead leaves, tea leaves, scraps of fruit waste or vegetable peelings
- A scrap of fabric
- An elastic band
- Some black paper
- And some wriggly worms!

Did you know?
The best time to look for worms is after rain when they come above ground. Only pick worms that have fully emerged from the soil – don't pull them out of the ground!

How to make a wormery
Pour a thin layer of sand into the bottom of your jar. Cover this with a thick layer of soil. Repeat until it is three quarters full. Put a handful of dead leaves, tea leaves or vegetable peelings on top of the soil. Now add your worms! For a lid, make small air holes in the fabric. Cover the opening and secure it with an elastic band. Wrap some black paper around your bottle. Remember – worms live underground so they prefer the dark. Keep your wormery in a cool, dark, safe place – a cupboard is ideal. Ensure that you keep it damp and remember to safely release your worms back afterwards in order for them to survive and thrive.

Tips and advice
Your children are likely to find this project much easier to do than you are! Do try to overcome any squeamishness, as worms are so vitally important. When children are collecting and observing the worms, they need to be aware that worms do not like to be in the dry or the light for any length of time. They could try holding them on wet hands, or looking at them on black paper (not as easy to see them), or using several, each one just for a few minutes. Always ensure the contents of the jar are moist, not too wet and definitely not too dry. Worms 'breathe' through their skin, which must be damp for this to happen. The jar should not be put anywhere too cold.
Charles Darwin studied worms for 39 years, and concluded that life on earth would not be possible without them. Mainly because they increase soil fertility so efficiently, but also because they reduce quantities of plant waste.

Earthworms are the world's unsung heroes. They loosen and mix up the soil, break down and recycle decaying plant matter and fertilise the soil by bringing nutrients closer to the surface.

Did you know?

- There are 26 different species of worms in the UK.
- Earthworms breathe through their skin, so they have to come to the surface when it rains or risk drowning.
- Worms can move an amazing amount of soil for their small size. A worm can eat its own weight in soil in one day.
- Earth worms burrow through the soil creating channels that add oxygen to the soil and allow carbon dioxide to escape. The channels also allow rain to drain away.
- Worms eat soil and organic matter such as fallen leaves, mixing these ingredients together and then 'poo' them out. Some composting systems collect this 'worm poo' to make a rich fertile compost which can be added to potting mixes.
- Worm casts which are seen on the surface of lawns are made by 5 types of worms, called casting worms. Mostly found from autumn to spring, these casts are by-products of eating (i.e. worm poo!).
- If you accidentally cut a worm in two, only the head end will regenerate and survive assuming the damage isn't too extreme.
- Earthworms range in length from a tiny one millimetre to a massive three metres.
- Worms do not have eyes and prefer the dark. They can sense light and dark and prefer dark conditions because they are easily damaged by UV rays and will dry out quickly
- Famously hermaphroditic, earthworms are both male and female in one body, though it still takes two worms to reproduce.

Credit RHS Resources.