scitech

Make your own worm farm

ACTIVITY SHEET

Did you know that worms are one of the most useful pets you could ever have? They're highly skilled recyclers who have mastered the art of turning organic waste into nutrient rich fertiliser.

Having a worm farm at home is a fantastic way to reduce your family's organic waste and give your garden a health boost.

What you'll need:

There are lots of different ways to make the structure of your worm farm, so see what you can get access to. You might want to use:

- a pre-made worm farm set from your local Bunnings store
- three polystyrene boxes and one lid (make sure the boxes are stackable)
- three large plastic buckets and one lid (make sure the buckets are the same size).

In addition to a set of containers, you'll also need:

- a drill (please ask an adult to do this for you)
- newspaper sheets
- shredded cardboard
- a piece of shade cloth large enough to cover the top of a container
- compost worms such as tiger worms (Eisenia fetida) or Indian blues (Perionyx excavates)
- some bedding material such as compost or manure.



Organic waste is made up of materials such as food scraps and garden clippings. Sometimes it's called 'green waste'. Your worms will happily munch their way through these scraps and turn it into rich 'compost'.

Getting started

1. Plan it!

Start by exploring around your home with an adult to find a good spot to place your worm farm. To keep your worms happy, you want somewhere that is:

- cool
- warm
- shady

Make sure your worm farm is not exposed to full sun, worms don't like it when it gets too hot or too cold!

2. Design it!

Draw a plan of your worm farm or use our template to start to bring your plan to life.



Staying safe



Make sure you wear gloves when handling your worm farm – especially when you're harvesting the vermicast or the liquid runoff. The vermicast and liquid runoff are full of bacteria that's good for your garden, but that doesn't mean they're good for your body.

3. Build it!

If you're using your own containers instead of a set of purpose made worm farm containers, you will need to make some holes. If you have a purpose made worm farm structure, then skip Steps 1 and 2.

- 1. Label each container as 1, 2 and 3.
- Ask an adult to drill a few large holes in the bottom of containers 1 and 2 (as pictured).
 Do not drill holes in container 3.
- Place the shade cloth over the top of container 3. This will prevent your worms from falling into the bottom container where liquid runoff will be stored.
- 4. Stack container 2 on top of container 3.
- 5. Add about 10cm of shredded newspaper or cardboard inside container **2**.
- 6. Add about 10cm of bedding material such as compost or manure on top of the newspaper layer.
- Add your worms be gentle! Make sure to spread them out evenly over the bedding material.
- Cover the worms with some damp newspaper sheets (or an old sheet or cloth, also damp).
 Put the lid on container 2 and leave the worms to settle in for a day or so.
- 9. Once the worms are settled into their new home, you can start feeding them small amount of food scraps!



Tips on feeding your worms:

Do not overfeed your worms. Before you add more food to your worm farm, make sure that the previous meal has been consumed.

Your worms will love most of your kitchen scraps including eggshells and coffee grounds. However, worms don't like citrus and onion, so avoid these. It's also best to avoid feeding your worms meat and dairy products because they can attract unwanted creatures like rats and flies.



Using vermicast

Vermicast is one of the best fertilisers you'll find for your garden. It's packed full of nutrients, so you only need to sprinkle a handful around your plants. After you've applied a layer of vermicast, give your plants a little bit of water and watch them grow!

4. Change it!

As your worms feed on your food scraps, the container will start to fill up with vermicast (also known as worm poop!). And the worms will want to move into a new clean home.

- 1. Prepare the container **1** with a layer of wet paper and compost, just like you did with container **2**.
- 2. Stack container 1 on top of container 2.
- Add some food into container 1 so that your worms know there's a new clean room to move into! It will take a few days for all your worms to move into container 1.
- Once all the worms have moved into container 1, you can remove container 2 from the stack and use the vermicast in your garden.
- 5. After you've removed the vermicast from container **2**, make sure to give the container a good wash.
- Once container 1 is full of vermicast, you can repeat steps 1-5 with container 1.

5. Making worm tea

Overtime, container **3**, will fill up with a dark brown liquid – the key ingredient for worm tea.

To make worm tea, simply:

- 1. Pour a little bit of the liquid from container **3** into a watering can.
- 2. Dilute the liquid with water until it's the colour of tea.
- 3. Use it to water your garden and watch it thrive!

6. Share:

We'd love to see what you create! Share your worm farm with us by tagging **#ScitechAtHome** on social media.

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