



Growing plants (KS1/KS2)

Can you grow your own lunch?



Intro

Plants have their own life cycle, just like all living things. Plants start as seeds. In the right conditions, seeds sprout stems and leaves. Later in their life, they bloom with flowers and fruits. These flowers and fruits make the seeds for the next generation of plants. You can see them inside fruits like apples, peppers and tomatoes. Let's grow a tomato plant!

We recommend using heirloom tomatoes or an open-pollinated variety for the best results, as these seeds will produce an identical plant to the original. Sometimes, supermarket tomatoes are infertile, or produce plants with less favourable traits.

Why not experiment with different tomatoes to see which seeds produce fruit, and how similar they are to the original?

Method

- You'll need something to grow the plants in. If you don't have a spare plant pot, you can make one out of a cardboard tube (see side box).
- Fill about three-quarters of your plant pot with soil.
- Chop a tomato into slices, no thicker than 1cm wide - ask someone responsible to help with using the sharp knife.
- Lay a tomato slice on top of the soil - make sure to choose a slice with seeds on it.
- Cover the tomato slice in a thin layer of soil and dampen the soil with a bit of water.



Making a plant pot

- Take a toilet roll or kitchen roll tube.
- Cut four lines, equally-spaced, a quarter of the way down the tube.
- Fold the four flaps inwards to make the base.
- Tape the flaps shut.
- Don't worry if there are gaps where the flaps don't overlap - this will help drain excess water.

The waiting game

It will take time for your seeds to start growing, this is called germination. After around a week, you'll spot small shoots emerging from the soil. As the plant grows, look for the different parts: leaves, stem, roots. How do they change as the plant grows?



What plants need

Now that your seeds have germinated, it's time to think about what plants need to grow and be healthy:

- Sunlight – place your seedling on a windowsill so it has light once it has started growing.
- Water – water the pot regularly, just enough to dampen the soil through.
- Air – plants need gases from the air, especially carbon dioxide.
- Nutrients – plants get nutrients from the soil. The slice of tomato we buried with our seeds will provide even more nutrients.
- Warmth – the seeds will start to grow sooner if kept at warmer temperatures like you find indoors.



Safety

Wash hands after handling the soil.

“Talking points”

- If you have more than one plant pot you could experiment with different growing conditions.
- What happens if you put one pot in a dark cupboard and one on a windowsill?
- What happens if you use something different to soil like tissue paper or sand? Or just the tomato slice by itself?
- Use a magnifying glass and look at the plants features up close – what new things do you notice?

Curriculum links

KS1

- Identify and describe the basic structure of a variety of common flowering plants, including trees.
- Observe and describe how seeds and bulbs grow into mature plants.
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

KS2

- Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
- Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.



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