

Growing Food

Key Stage 1 & 2

This learning resource will help you learn about where your food comes from, and what fruit and vegetables need to help them grow. It is based on a session we deliver in the Kitchen Garden at Chatsworth and we have revised it for you to try out at home, in your kitchen or any outdoor space that you have.

Parents: Supervision will be required for key stage 1 learners. You can find an information sheet on the last page of this resource to support the activities.



The Kitchen Garden at Chatsworth, where we engage school children in learning about food, how it grows and what it needs to survive

What you will need:

- ❖ A growing plant either in the garden, park, woodland or in a pot inside the house.
- ❖ Food: fresh fruit and vegetables, packets or tins of food from the cupboard.

Make sure you check with someone that it's ok to use fresh food before you start.

Learning Outcomes You will:

- Be able to identify what a plant needs to grow and stay healthy (KS 1)
- Gain confidence in identifying which part of a plant some fruit or vegetable comes from (KS 1)
- Develop an understanding of seasonality (KS 1 & 2)
- Begin to understand the main parts of the life cycle of edible plants (KS 1 & 2)
- Be able to identify the structure of a plant (KS 1)
- Be able to describe the function of different parts of a plant (KS2)

Activity One: What do plants need to grow?

Are you sitting comfortably at the table or in the garden with a plant in front of you? Let's think about what your plant needs to stay healthy and grow. (KS 1)

What do you need to keep you healthy and help you grow? Plants needs some of these things too! Take a look at these words and select which words describe what you need and then which words describe what your plant needs:



I need

- 1.
- 2.
- 3.
- 4.

My plant needs

- 1.
- 2.
- 3.
- 4.

Talk to a partner – this can be an adult or a sibling – about why your plant needs these things.

♣ **Fun Fact:** Did you know that rhubarb can be grown in the dark? It can be forced to grow in dark, hot huts, called hothouses. Rhubarb uses its own energy stores to grow stalks when there is no light. Farmers first grow the rhubarb outdoors and then transfer it to a hothouse to grow.

Activity Two: Plant structure

Now we know what plants need, let's identify the parts of a plant (KS 1 &2)

Can you label this plant?

KS 1: Name the plant parts by putting the following words into the right boxes on the plant diagram to the right:

Leaf Stem Flower Roots

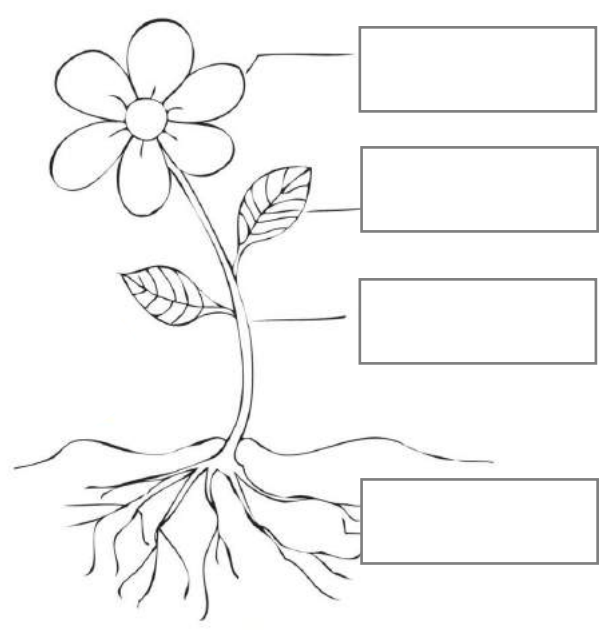
KS 2: After labelling the diagram to the right, try to describe what each part of the plant does. You may need to do some research!

Roots

Stem

Leaf

Flower



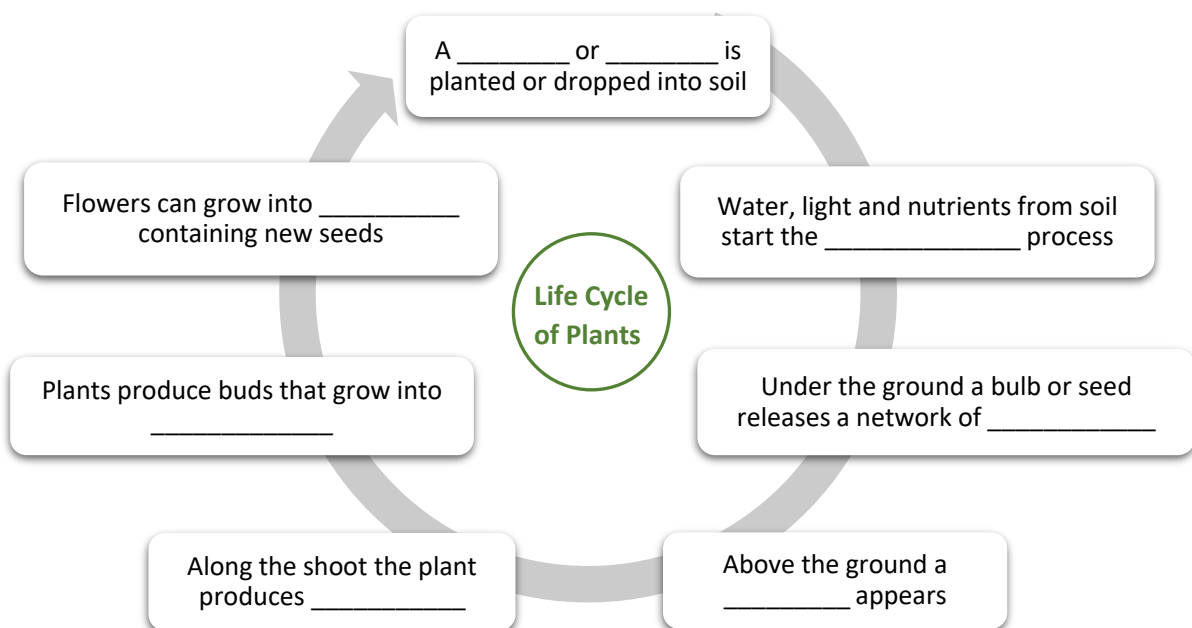
Activity Three: How Do Plants Grow?

Next we will look at how some plants grow into the food we eat.

Many plants grow from a **seed** or **bulb**. If they have all the things they need to grow, seeds and bulbs grow **roots** and **shoots**. **This stage is called germination.**

Shoots then grow above ground and produce **leaves**. Many plants make **flowers**, which turn into **fruits**. **Flowers** and **fruits** can then make their own **seeds**, which will later begin the **germination** process all over again. This is called the plant **life cycle**.

Can you complete the life cycle below, by writing the correct words in the boxes?
All the words you need are in bold in the description above.



Activity Four: What do we eat?

Now we know our roots from our leaves and how plants grow, let's work out which parts of the plant we eat.



Can you identify these four edible plants?

Next, can you work out which one of these is? Use the diagram on page 2 to help you.

- an edible stem
- an edible root
- an edible leaf
- an edible fruit

Activity Five: Seasonality

Most fruit and vegetables are seasonal – they grow in their country of origin during specific seasons of the year. This means that they are at their most nutritious and most tasty – they are also good for us! Eating fruit and vegetables when they are in season where you live, also means that they have not travelled far to land on your plate. This is good for you and for the planet.

Strawberries and cream might remind us of a summer's day but if you want to eat this in the winter in Derbyshire, you can! Fruit and vegetables – like strawberries – can be found all year round in our shops, but this is because it is grown somewhere else or in an unnatural environment like in greenhouses or polytunnels. We buy this produce from other countries around the world. During our winter, for example, warmer countries like Spain or Turkey can grow strawberries for us.

Can you match these British-grown fruit and vegetables to their season? Join the pictures with lines or talk about this with an adult or sibling.



♣ **Fun Fact:** Did you know that bananas are grown at Chatsworth? Joseph Paxton, Head Gardner at Chatsworth in the 19th century, brought the banana now known as the *Dwarf Cavendish* to Chatsworth and successfully grew it in a glasshouse. It still grows in the garden at Chatsworth today.

If you have enjoyed learning about plants and you would like to know more, then you can download our resource on *Pollination*. This will tell you about how nature helps with the life cycle of plants. Maybe you could try growing your own seeds. Happy planting!

Curriculum links for parents and teachers:

Science	Design & Technology
<p>KS1</p> <p>Identify and name a variety of common garden plants</p> <p>Identify and describe the basic structure of a variety of common flowering plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>	<p>KS1</p> <p>Understand where food comes from</p>
<p>KS2</p> <p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>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</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p>	<p>KS2</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p>

Here are the answers to each activity:

Activity One

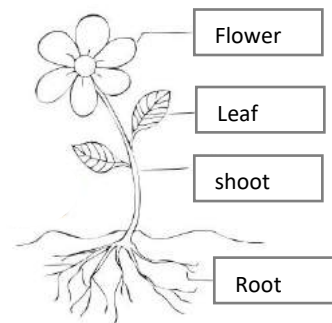
I need

1. Water
2. Exercise
3. Food
4. Sleep

My plant needs

1. Water
2. Soil
3. Suitable Temperature
4. Daylight

Activity Two



Activity Three

- A **bud** or **shoot** is planted or dropped into soil
- Water, light and nutrients from soil start the **germination** process
- Under the ground a bulb or seed releases a network of **roots**
- Above the ground a **shoot** appears
- Along the shoot the plant produces **leaves**
- Plants produce buds that grow into **flowers**
- Flowers can grow into **fruit** containing new seeds

Activity Four

- an edible root - Potato
- an edible stem - Broccoli
- an edible leaf - Cabbage
- an edible fruit – Strawberry

Activity Five



Summer



Autumn



Spring



Winter