# Science

## Plants

Class Tamar

Autumn 1 2023

In this lesson we answered the question: What are the functions of different parts of the flowering plant?

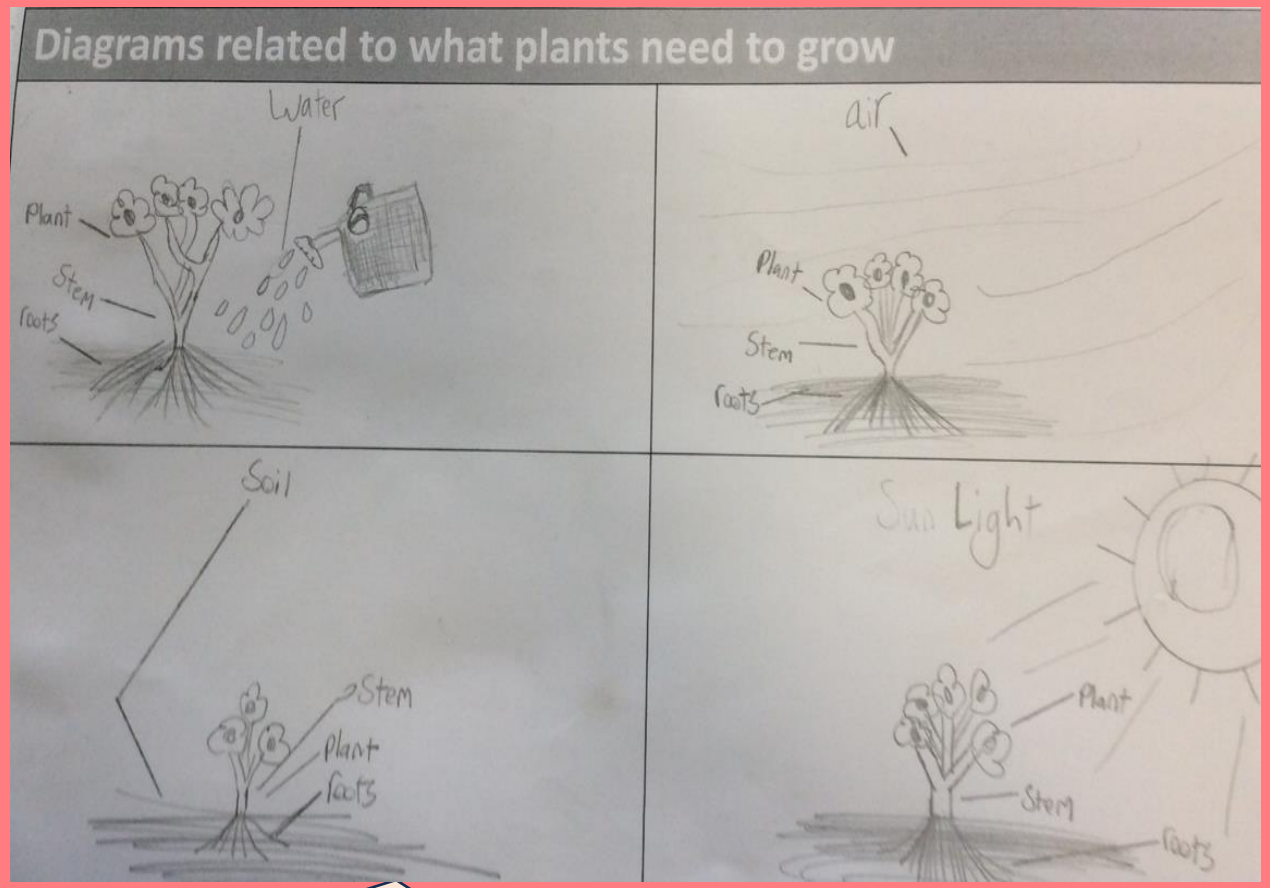
We explored the function of the roots first by looking at plants more closely outside. We dug up some plants and looked carefully at their roots and reflected on the important role the roots play. We then learnt about the functions of the stems, leaves and flowers.

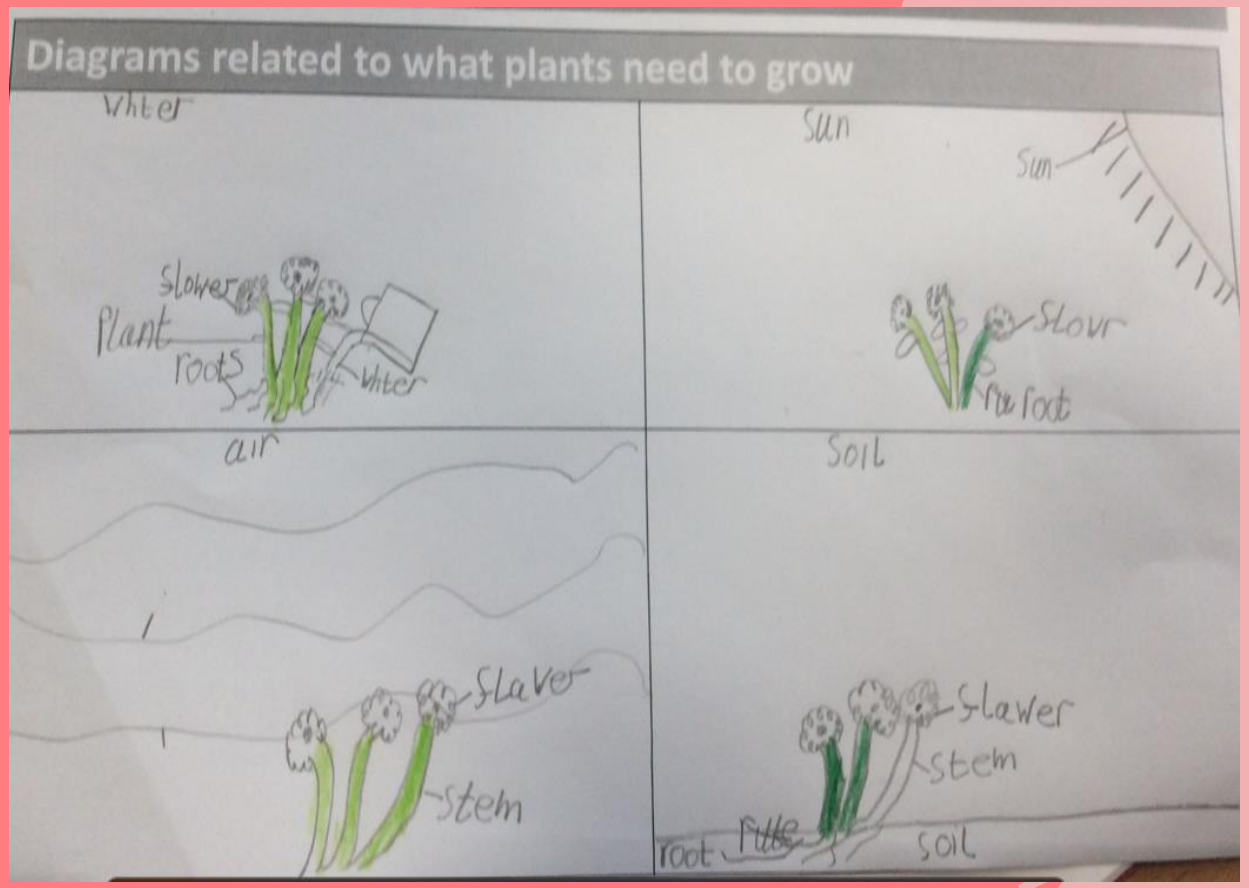
I never knew that flowers were colourful to attract the bees!

Some of the bigger plants have longer roots!

In this lesson we answered the question: What are key factors that are important for a plant's growth?

We learnt that plants need natural light to survive. Natural sunlight allows plants to grow but all plants are different, some may need lots of direct sunlight, some prefer the shade! We remembered that plants also need: water, air, soil and space and learnt more about why this is.




Sometimes plants can grow without soil, they can grow whilst in just water.

Plants also need space so that they have room to grow!

We carried out an investigation: How will plants survive without soil?

The plant in the cotton wool at first survived after a week but it eventually died. I think its because it held onto too much water!

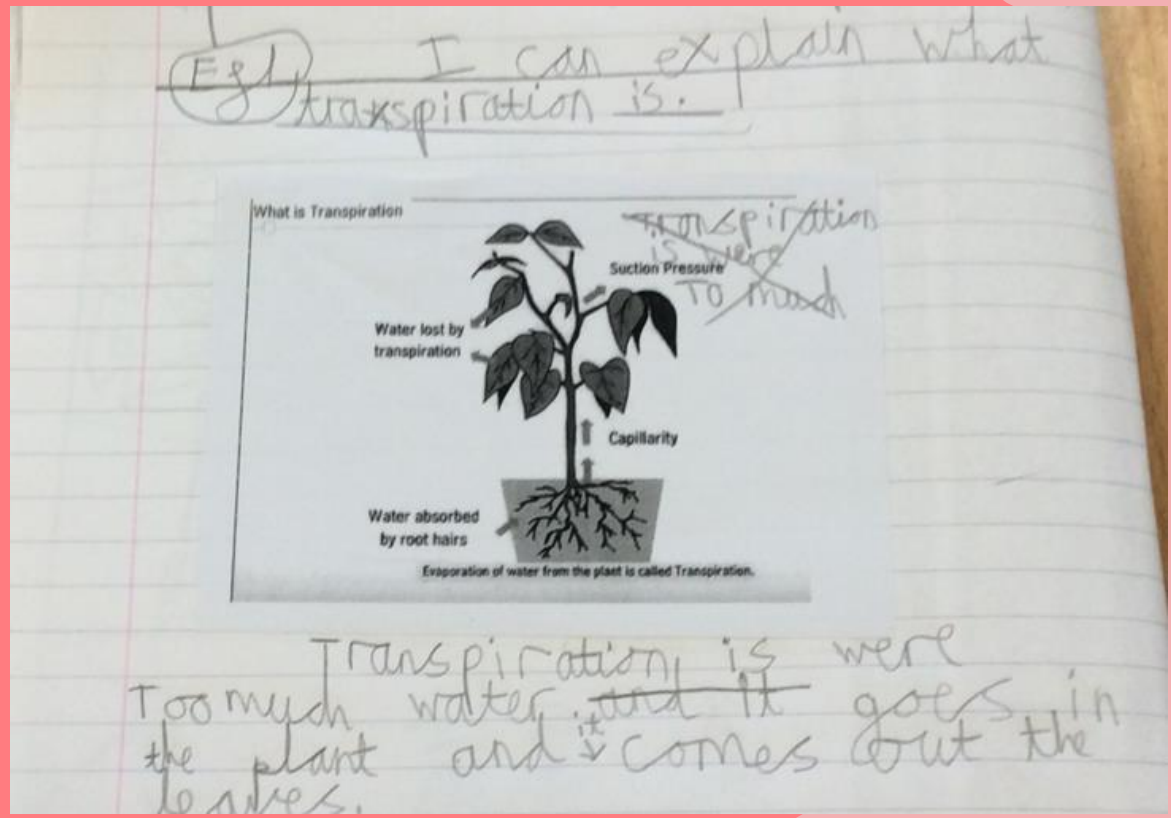
We found out that the plants that had nothing supporting its roots didn't survive because there was nothing to hold the water for the roots to absorb.

The plants that had soil survived because they were able to hold onto the perfect amount of water.

In this lesson we answered the question: How is water transported within a plant?

We learnt about the job of the plants stem in further detail and what transpiration means. We set up an experiment where we put food colouring in the water with white carnations (the carnations in class only changed colour slightly, we think it's because the food colouring was made from natural ingredients!).

The water travels up from the roots, up the stem and to the flower.




The stems job is also to hold the plant in place and upright.

We answered the question: What do we mean by pollination and seed formation?

We learnt about the part insects have in pollinating plants and learnt the process of pollination and seed formation.

The flowers want bees to visit so that they can be pollenated and become a seed. That's why they have a pretty scent!

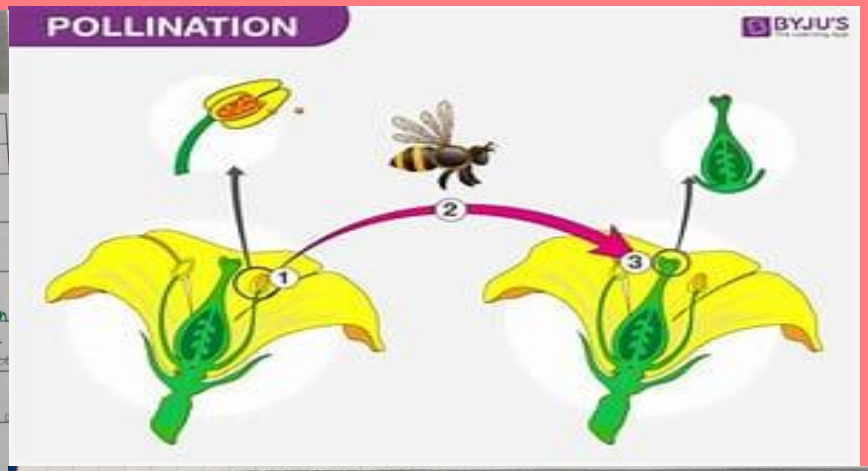
The flowers are colourful to attract the bees.

**What part do different parts of plants play in helping them grow healthily?**

What do we mean by pollination, seed formation and seed dispersal?

- **Watch the following internet link:**
- Science KS1 / KS2: What is pollination and how does it work? - BBC Teach
- Having watched the internet link and remembering what you have learned so far, set out six things you now know about pollination.

1. The Petals attract Bees Because of Coulor colour colour
2. The Smell of nectar also attracts Bees
3. The Bee digs for Nectar and flyes with Pollen
4. The Bee Goes to another flower and the previos Nectar
5. the Pollen then goes through the Style to the ovary
6. When the Nectar Goes to the ovary the fertilisation turns into

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1. Pollination is very important for making a new seed.
2. When the bee comes over it drinks up the nectar and the pollen gets stuck to the body.
3. And then the bees gets to a another flower and the pollin rubs of the stamen.
4. After that, the pollin goes down the style and into the
5. The flower is Fertilised.
6. The flower becomes a seed.

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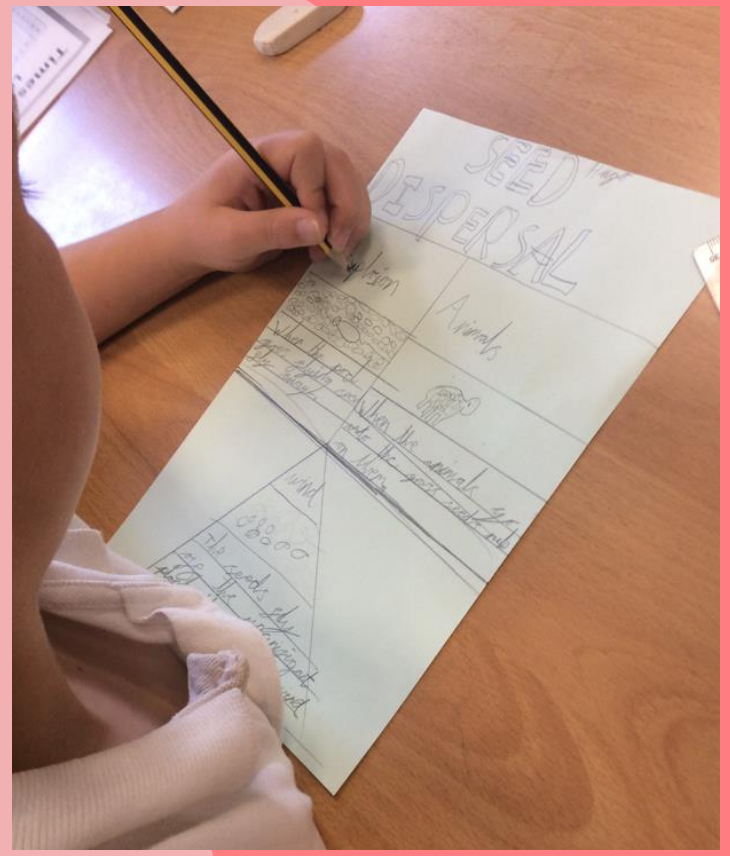
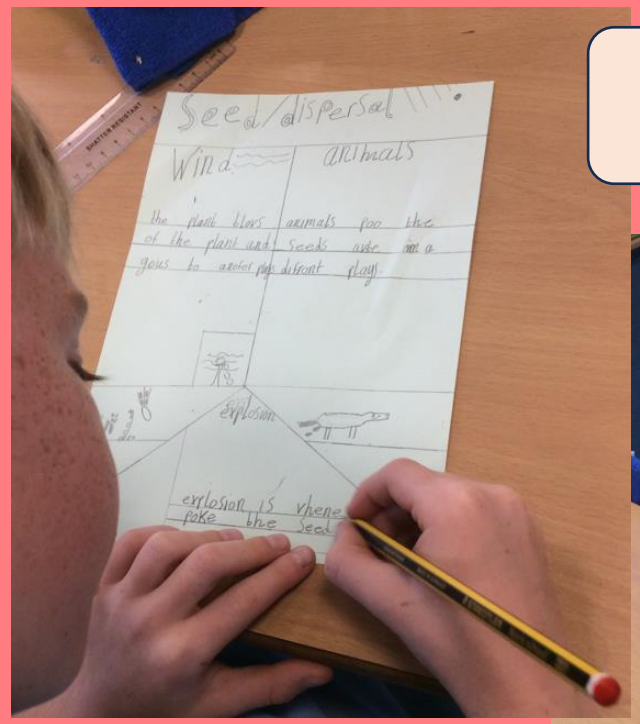
1. the flower draws in insects by the smell and the colour.
2. the insects get covered in pollen from the stamen.
3. They fly to the next flower and gets nectar on the stigma.
4. wich goes down the style and leads to the ovary.
5. It fertalises and becomes a seed.
6. It makes a new flower.

To finish our unit all about plants, we answered the question: How are seeds dispersed?

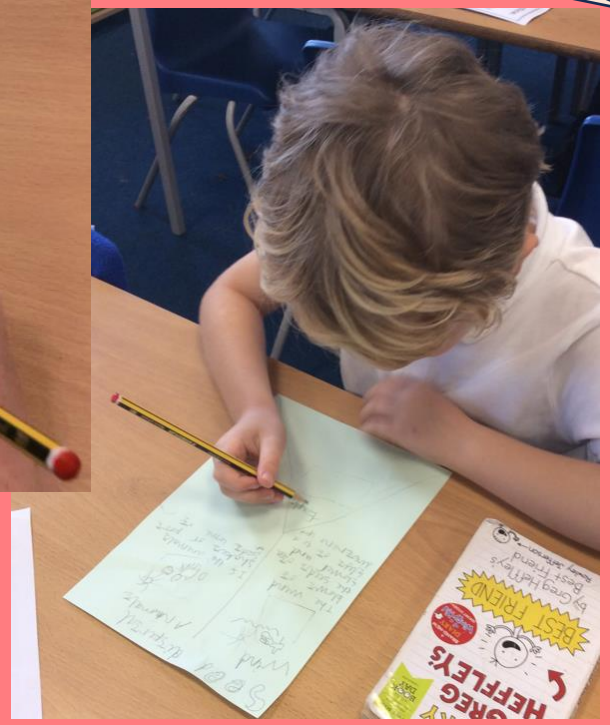
We learnt about various ways that seeds come away from their parent plant. We watched a short video featuring Sir David Attenborough that showed us how some plants explode to disperse their seeds!




When plants explode the water from inside the pod help the seeds to launch away!




I never knew plants could explode!



Seeds can either blow away by the wind, get caught in animals' fur or get eaten by animals and come out the other end.

# Science Year 3 Knowledge Organiser

## What part do different parts of plants play in helping them grow healthily?

| Key knowledge |
| --- |
| **Understand what a plant needs to flourish and find out about its life cycle** |
| Know the function of the different parts of the flowering plant |
| Know that light, air, water, nutrients from soil are all important for plant growth |
| Find out how water is transported within a plant |
| Know the part that flowers play in the life cycle of a flowering plant |
| Know about pollination, seed formation and seed dispersal |

| Vocabulary | |
| --- | --- |
| **pollination** | This is the act of transferring pollen grains from the male anther of a flower to the female stigma |
| **seed dispersal** | Is the movement or transport of seeds away from the parent plant |
| **seed formation** | A seed is a small baby plant enclosed in a covering called the seed coat, usually with some stored food |
| **nutrients** | Are the food the plant wants. Most of the plant's nutrients comes from the soil |
| **stigma** | This is usually sticky and receives pollen |
| **anther** | The stamen has a pollen producing structure at the end which is called the anther |

**Personal development:** The jobs it can be used in are: conservation scientist, farming, plant biologist. Children will learn to appreciate and embrace our local environment.

### Our Endpoint

I can explain how different parts of a plant help it grow healthily.

SCIENCE

**Prior Knowledge–**

- **Within the same subject**
- **Within another subject**
- **From personal experience**