**Year 2 Science Knowledge Organiser** **Topic:** Plants

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| **Key questions:** |
| How do plants grow? What does a plant need to grow and stay healthy? What are the parts of a plant? How are plants related to science? Do plants grow better in soil or water? What is the life cycle of a plant? |
| **Key knowledge** | The life cycle of a plant |
| * **Plants** are living things.
* Most have roots which they use to absorb water and nutrients, and leaves which they use to absorb sunlight.
* Plants come in many different shapes and sizes, and live in different habitats around the world.
* Plants are part of the food chain and many are eaten by animals.
* Seeds are spread out (**dispersed**) in various different ways such as wind and animals.
 | **Life cycle** is a series of changes living things go through. 1. The plant grows. 2. The flower blossoms and then dies. 3. A fruit with seeds is left behind. 4. The seeds get scattered.5. The process begins again.  |
| Key knowledge: Parts of the plant and their functions.  |  |
| * **Roots:** hold the plant in the ground and absorb water and nutrients from the soil.
* **Stem:** transports water and nutrients to different parts of the plant.
* **Leaves:** use light, air and water to make food for the plant.
* **Flower:** the part of a plant that blossoms. Flowers produce the seeds that form new plants.
* **Petals:** attract pollinators using their bright colours or unusual shapes.
* **Trunk:** the stem of a tree, from which its branches grow.

In order for a seed to survive and grow into a strong plant it needs **water, light, suitable temperature**, air and time.* **Seeds:** the part of a plant from which a new plant grows.
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| **Key vocabulary:** |
| * **Fruit:** a usually sweet food (such as a blueberry, orange, or apple) that grows on a tree or bush. Fruits contain seeds. Fruit is sweet so is tempting to animals who it and poo out (excrete) the seeds.
* **Vegetable:** the other edible parts of the plant (like stems, flower buds, leaves).
* **Carbohydrate:** foods that give you energy, such as potatoes, bread, rice, pasta.
* **Dairy:** food that that provide calcium, such as milk, cheese, yogurts and cream.
* **Protein:** food that stops you becoming poorly, such as beans, eggs, meat and fish.
* **Bulb:** A sort underground stem surrounded by usually fleshy modified leaves that contain stored food.
* **Pollen:** the product of a male part of a plant which allows it to produce seeds.
* **Pollination:** the process by which pollen is transferred to the female parts of the plant which means the plants can make seeds and reproduce.
* **Germination-** where a seed first sprouts – the beginning the growing cycle.
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| **Output:** |
| Explain using diagrams and labels, the different parts of a plant.Observing how seeds and bulbs grow.Fair test: how do we keep a plant healthy? Test the conditions needed to keep plants alive and healthy.Using magnifying glasses to observe the inner part of a flower. Comparing how different plants and seeds grow.Writing the results of a comparative test.  |