Subject: Science – Plants	Year group: 2 Autumn 2
Key Concepts: Plants may grow from either seeds or bulbs. Use the local environment throughout the year to observe how different plants grow. Pupils should be introduced to the requirements for germination, growth and survival.	

National Curriculum Objectives	BIG Question:	Scientific skill:	Enhancements:
• 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.	Where does my food come from?	Gathering and recording data to help in answering questions	Planting bulbs Autumn plants journal

Prior learning:	Future Learning
• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants) • Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)	• Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants) • 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. (Y3 - Plants) • Investigate the way in which water is transported within plants. (Y3 - Plants) • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

WHAT PUPILS NEED TO KNOW OR DO TO BE SECURE

Show understanding of a concept using key vocabulary correctly

By the end of this unit, the children will know:	By the end of this unit, most children will
• Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. • Mature plants may have flowers which then develop into seeds, berries, fruits etc. • Seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. • Some plants are better suited to growing in full sun and some grow better in partial or full shade. • Plants also need different amounts of water and space to grow well and stay healthy	• Suggest what they think a plant needs to grow and stay healthy. • Dissect and observe a seed, explaining which parts will grow into a plant and which part is its food. • Order the life cycle of a plant and begin to explain what happens at each stage. • Explain that plants need water, light and a suitable temperature to grow and stay healthy. • Begin to explain what happens if a plant does not get everything it needs. • Find out and describe how different plants need different amounts of water and light and different temperatures to grow and stay healthy. They understand how some plants are suited to their habitats.

Vocabulary explicitly taught:

- Germination: When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is called germination.
- Nutrition: Food or nourishment. Plants make their own food in their leaves using sunlight.
- Shoot: A shoot grows upwards from the seed or plant to find sunlight.
- Seed dispersal: Seed dispersal is when the seeds move away from the parent plant. They can drop to the ground in the plant's fruit or be moved by the wind or animals.
- Sunlight: All plants need light from the sun to grow well. Some plants need lots of sunlight. Some plants only need a little sunlight
- Temperature: Temperature is how warm or cold something or somewhere is. Some plants like cooler temperatures and some like warmer temperatures.
- Water: All plants need water to grow. Without water, seeds and bulbs will not germinate.

Assessment: (How will we know they've 'got' it? This could be a cold/hot task)

Cold task - Discussion with talking 3's (Record ideas on post-its for books 'Where does my food come from?'

Hot task – Science assessment – Provided by the science lead

Common Misconceptions

Some children may think:

- plants are not alive as they cannot be seen to move
- seeds are not alive
- all plants start out as seeds
- seeds and bulbs need sunlight to germinate.

Suggested activities

Make close observations of seeds and bulbs.
• Classify seeds and bulbs.
• Research and plan when and how to plant a range of seeds and bulbs.
• Look after the plants as they grow – weeding, thinning, watering etc.
• Make close observations and measurements of their plants growing from seeds and bulbs.
• Make comparisons between plants as they grow