Subject: - Science - Unit 4/6 Plants (Seeds and Bulbs)

Year A phase 2

NC/PoS:

- 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.

Prior Learning (what pupils already know and can do)

Know flowering plants can consist of leaves, flowers (blossom on trees), petals, roots, bulb or seed, trunk, branches, stem. Some plants are grown by human intervention (garden plants) and some without human intervention (wild plants) How plants change through the seasons.

End Goals (what pupils MUST know and remember)

- Know seeds and bulbs have a store of food inside them
- Know plants, need light, water, air, nutrients, and space
- Know that seeds and bulbs do not need light to germinate but need warmth.
- Know the process to grow into mature plants includes growing roots, shoot appears through soil, plant takes nutrients from the soil and continues to grow
- Know types of seed: sunflower apple, tomato, pea
- Know types of bulbs: daffodil, tulip, bluebells, onions, garlic
- Know that plants need water, light, warmth, and space to stay healthy

Key Vocabulary: seeds (sunflower apple, tomato, pea) bulbs (daffodil, tulip, bluebells, onions, garlic) store, narcissi, snowdrop, light, temperature, growth, healthy

Curriculum Connections

- Mathematics: Measuring plant growth and comparing data over time.
- Geography: plants grow in different places depending on the climate and location
- Art: Observing and drawing plants
- English: labelling drawings and writing captions

Career Opportunities

- Botanist: Studies plants and their growth.
- Horticulturist: Cultivates plants for food
- Farmer: crop production.
- Landscape Designer: Uses knowledge of plants to design gardens and public spaces.
- Plant Photographer: Captures plant development for educational or commercial purposes.

Session 1: review prior learning

Recap: structure of plants. Name three wild and garden plants

https://www.youtube.com/watch?v=tkFPyue5X3Q David Attenborough - plant growing

Session 2: Recap: what is the structure of a flowering plant?

Children learn seeds and bulbs have a store of food inside them. Name types of seed: sunflower apple, tomato, pea. Name types of bulbs: daffodil, tulip, bluebells, onions, garlic

Lo: to observe different types of seeds and bulbs

Give the children a variety of seeds and bulbs to observe and compare size, colour, shape etc.

https://www.youtube.com/watch?v=tkFPyue5X3Q

https://www.youtube.com/watch?v=tkFPyue5X3Q Information for teachers

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Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Vocabulary: seeds (sunflower apple, tomato, pea) bulbs (daffodil, tulip, bluebells, onions, garlic) store, size, colour shape,

Session 3: name different seeds and bulbs

Over next few weeks set off 3 different experiments

https://www.youtube.com/watch?v=bsVtm4L4LMY up to 5.16

Plant some bulbs and seeds in trough, peas grow quickly, take tomato seeds out of tomato, sunflower, narcissi, and snowdrop. Each table or group could have different plants to grow. Children record their observations and results when measuring the plant Vocabulary: peas, tomato, sunflower, narcissi, snowdrop, germinate

Session 4: Recap: what do plants need to grow?

LO: to predict the growth of a seed

To observe how plants needs light for healthy growth. Plant seeds, put one pot in a cupboard. It will still grow but be long and straggly trying to reach for the light. Highlight - plants need light for growth.

Vocabulary: light, weaker

Session 5: what do plants need to grow?

Children learn that seeds and bulbs do not need light to germinate but need warmth To observe how cold affects a plant

You can either plant seeds or use two established plants but put one in the classroom and the other in the fridge. What happens to the plant?

Children evaluate what has happened, giving reasons.

Vocabulary: temperature, growth

Session 6: Recap: How does the cold affect plants?

Children learn that plants need water, light, warmth, and space to stay healthy

Lo: To Describe how to look after a plant and keep it healthy

Vocabulary: healthy

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