

Subject: Science

Year 2: Plant Growth (seeds and bulbs)

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, size, colour shape, sunflower, narcissi, snowdrop, germinate, light, weaker, temperature, growth, healthy

Session 1:

Use Kapow Lesson 1: What do seeds need to grow?

Recap and Recall: Before starting this unit, check the children can recall the following key facts from the unit [*Science, Year 1, Plants: Introduction to plants.*](#)

- Name 3 wildflowers and 3 garden plants
- Identify plants and their features.
- Recall some of the roles that flowering plant parts have.
- Recall that seeds and bulbs come from plants.
- Recognise that seeds need water for growth.

Display the *Presentation: Plant parts* and ask pairs to recall the plant part names and their roles before clicking to reveal the information.

Use the presentation in 'main event' section- Comparative tests. Teacher, with the help of the children, can plant the 3 seeds for the comparative test.

Children can write their predictions in their book (do not need to complete worksheet)

- Session 2:

Use Kapow Lesson 2: Seeds and bulbs

Recap and Recall:

- Name the three conditions being tested. (No water, no light and no warmth.)
- Name two seasons in which there is more plant growth. (Spring and summer.)
- Name one flowering plant. (Answers may include sweet pea, sunflower or daffodil.)

LO: To recognise that seeds and bulbs contain what they need to grow into a 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 Give the children a variety of seeds and bulbs to observe and compare size, colour, shape etc.

Stop when you reach the 'Plant diary' section of the lesson and instead each table can plant a

different type of seed/ bulb to observe its growth over the coming weeks using the 'Plant diary'
Additional resources: <https://www.youtube.com/watch?v=tkFPyue5X3Q>
<https://www.youtube.com/watch?v=tkFPyue5X3Q> Information for teachers
Vocabulary: seeds (sunflower apple, tomato, pea) bulbs (daffodil, tulip, bluebells, onions, garlic) store, size, colour, shape

Session 3:

Use Kapow Lesson 3: Germination

Recap and recall: Name different seeds and bulbs

LO: I can recall that seeds need water and warmth to germinate.

Working scientifically LO: I can compare plant growth in different test conditions.

Follow the lesson plan, but collect and record the data in the table as a class in floorbook and children answer the 2 questions in their own books:

Does a seed need light to germinate?

What do seeds need to germinate?

Children can start to complete their 'Plant diary'

Vocabulary: peas, tomato, sunflower, narcissi, snowdrop, germinate

Session 4:

Use Kapow lesson 4: Light and plant growth

Recap: What do seeds need to germinate? Use 'Germination Poem'

LO: To describe the effect of light on plant growth

Follow the lesson plan and if time allows do the drama activity (not compulsory)

Continue completing plant diaries.

Vocabulary: condition, germinate, observe, stem, leaf, growth, measure, shoot, roots

Session 5:

Use Kapow lesson 5: Plant life cycle

Recap and recall: Vocab recall.

LO: To identify stages of a plant's life cycle.

Working scientifically LO: To draw and label diagrams.

Miss out the 'Life Cycle Relay' in main event and children move onto completing 'Life Cycle Flap Books'.

Vocabulary: diagram, germinate, leaf, roots, seedling, flower, growth, life cycle, seed, shoot

Session 6:

Use Kapow lesson 6: Plant Care

Recap: What do plants need for growth?

LO: To recognise what plants need for healthy growth.

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

Children finish completing their 'Plant Diary'

Vocabulary: healthy

Link to career scientist:

Landscaper <https://www.youtube.com/watch?v=ZNFAcNsB5Yo>

Tree surgeon <https://www.youtube.com/watch?v=IffIjGnwzJQ>

Plant photographer

Scientists who have helped develop understanding in this field: David Attenborough