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| Subject: Science Year: Phase 2 Plants (seeds and bulbs) Unit 4 of 6  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 the stem holds the plant up towards the light and carries water and minerals from the roots to the rest of the plant * Know the root anchors the plant and root hairs soak up water and minerals from the soil. * 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 * Know the names of wildflowers- Fennel, nettle, foxglove * Know the name of garden flowers- tulip, daffodil, orchid, dahlia * Know the name of evergreen trees- Bay Tree, Eucalyptus, olive and palm |
| 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: review prior learning ( names of trees and flowers)  Recap: structure of plants.  Name three wild a plants- Fennel, nettle and foxglove  Name garden flowers- Tulip, daffodil, orchid and dahlia  Name evergreen trees-Bay Tree, Eucalyptus, Olive and Palm  [https://www.youtube.com/watch?v=tkFPyue5X3Q](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  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 |
| Link to career scientist:  Landscaper <https://www.youtube.com/watch?v=ZNFAcNsB5Yo>  Tree surgeon <https://www.youtube.com/watch?v=lffIjGnwzJQ>  Plant photographer |
| Scientists who have helped develop understanding in this field: David Attenborough |