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| **Year 3: What Plants Need (Plants) UPDATED November 2023** | |
| **Links made with other subjects** | Instruction writing – how to plant a seed / grow a plant |
| **The BIG Question** | How do plants grow? |
| **The BIG Outcome** | Short explanation answering the BIG question (answer after completing parts of plants) |
| **Science objectives**  (link to NC) | - 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 |
| **Prior knowledge**  What prior knowledge is needed for children to be successful in this unit? | *Children already know:*  EYFS – Understanding the world. Children know about similarities and differences in relation to places, objects, materials and living things. They can talk about the features of their own immediate environment and how environments might vary from one another. They can make observations of animals and plants and explain why some things occur. They can talk about changes. Yr 1: **Plants (Plants)**  Yr 2: **Growing Plants (Plants)** |
| **Future learning**  Consider the conceptual knowledge within a subject that pupils need for future learning not just the recall of facts but the importance of concepts | This unit gives prior knowledge to:  Yr 3: **Parts of plants (Plants)** |
| **Science strands** | Related Enquiry Questions   |  | | --- | | **Classifying** | | Not relevant | | **Observing over time** | | Not relevant | | **Pattern Seeking** | | Investigate what happens when conditions are changed e.g. more/less light/water, change in temperature, nutrients (Baby Bio vs other brands). | | **Comparative testing** | | Not relevant | | **Researching** | | Not relevant | |
| **Vocabulary/ Glossary** | Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, evergreen, deciduous, light, shade, sun, warm, cool, water, grow, healthy, germinate |
| **Knowledge**  (see italics for knowledge to remember) | *The knowledge that children will learn and remember:*  Children should explore growing different plants with the same conditions and the same plants in different conditions to deepen their understanding of what plants need to grow. This builds on their knowledge from Year 2.   1. *Different plants require different conditions for germination and growth* 2. *Plants need air for carbon dioxide / oxygen so they are able to grow* 3. *Light to create energy and be able to grow* 4. *Light also produces heat* 5. *Water to ensure they are hydrated and able to grow* 6. *Plants need nutrients from the soil to be able to grow which is similar to humans needing nutrients from our food* 7. *Plants need room to grow as they get bigger* 8. *If they are too close together, the roots and other parts of the plant have to fight for the same nutrients, light and water* |
| **SEND expectations** | 1. *Different plants require different conditions for germination and growth.* 2. *Plants need air for carbon dioxide / oxygen so they are able to grow.* 3. *Plants need light for warmth.* 4. *Plants need water to ensure they are hydrated and able to grow* 5. *Plants need room to grow as they get bigger* |
| **Common misconceptions** | Some children may think:  - plants eat food  - food comes from the soil via the roots  - flowers are merely decorative rather than a vital part of the life cycle in reproduction  - plants only need sunlight to keep them warm  - roots suck in water which is then sucked up the stem. |