**Year 2 Science Curriculum – Summer Term 2**

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| **Theme: Growing Healthy plants** | | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | | **Links across the curriculum** |
| To observe and describe how seeds and bulbs grow into mature plants.  To find out and describe how plants need water, light, and a suitable temperature to grow and stay healthy. | | | **Keyword** | **Definition** | **compare** | To notice how things are the same or different | | | **English:**  **Harry’s Garden** – Kim Wilde – Kim Wilde and her son, Harry, show how to make a garden in an old wheelbarrow.  **The Gardening Year** – Becky Dickinson – Follow a garden through its annual cycle, with all key milestones explained and beautifully illustrated. |
| **comparative test** | A science enquiry to compare different materials or events | **describe** | To use words to tell someone else what something is like | | |
| **enquiry** | A method scientists use to collect information to answer questions | **record** | To draw or write what you observed or measured | | |
| **explain/ explanation** | To give reasons for what you have done or found out | **temperature** | A measure of how hot or cold something is | | |
| **measure/measurement** | To use equipment to find out the exact size or weight of something | **thermometer** | A piece of equipment used to measure temperature | | |
| **pattern seeking** | An enquiry looking for a pattern between two things | **bulb** | A rounded structure which acts as a food store; a new plant will sprout and grow from it | | |
| **predict/ prediction** | To say what you think will happen | **conditions** | Factors that affect a living things | | |
| **results** | The findings from an enquiry | **germinate/ germination** | When a seed starts to grow | | |
| **health** | well | **light** | Produced by a light source and make it possible for the eye to see things | | |
| **mature** | Has completed its development | **seedling** | A young plant | | |
| **soil** | The top layer of the Earth’s surface; a mixture of bits of rock and remains of living things that have dies | **leaf**  **roots**  **seed**  **stem** | A flat part of a plant which is attached to a stem  The part of a plant which grows under the ground  A plant part from which a new plant grows  The part of a plant which grows above the ground, and which holds the leaves and flowers | | |
| **Prior knowledge:***What specifically have pupils learned that is relevant to this unit that they are building upon?* | | | | | | | **Future knowledge:** *What specifically will pupils learn in the future that is relevant to this unit?* | | |
| Children have previously learnt:   * The names and parts of a variety of different plants, including trees (Year 1 Biology – Plants) * That seeds and bulbs grow into mature plants, and the conditions required for seeds to germinate (Year 2 Biology – Plants) * How habitats provide the correct conditions for a plant’s survival (Year 2 Biology – Living things and their habitats). | | | | | | | This prepares children for later learning:   * About the life cycle of flowering plants (Year 3 Biology – Plants) * About the function of different parts of flowering plants (Year 3 Biology – Plants * About other conditions required for mature plant growth such as air and nutrients (Year 3 Biology – Plants). | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | | **Key Skills** | | |
| 1. ***How can we care for our plants?*** | | Seeds germinate into seedlings and then grow into mature plants. Like animals, mature plants need certain conditions so that they grow healthily. | | | | | **Working scientifically**  Skills children will learn, use, and develop   * Observing closely [using simple equipment]. * Identifying and classifying.   **Knowledge about science children will learn:**  They will develop an understanding of the following types of enquiry: identifying and classifying and observing over time.  They will learn that scientists build explanations about the natural world by making observations and collecting, analysing, and interpreting data to test their ideas, and that they identify links, patterns, and relationships. | | |
| 1. ***Do mature plants need light?*** | | Comparative tests can be set up to determine whether mature plants (including grass) require light to grow healthily. | | | | |
| 1. ***Does temperature affect the growth of mature plants?*** | | To determine how fast a plant is growing, its height can be measured and compared with another plant of the same type. Some plants have features which help them to live in hot conditions while others can live in cold conditions. | | | | |
| 1. ***Do mature plants need water?*** | | The stems and leaves of mature plants which have not been watered for some time will be droopy. If they have not been watered for a long time the plant may be dead and the leaves will be brown and feel crispy. | | | | |
| 1. ***What have we learnt about what mature plants need to grow healthily?*** | | Mature plants need light and water to grow healthily. | | | | |
| 1. ***Assessment*** | | Snapshot 1: Planet Doctor  Curriculum statement is achieved if the child: Can state that plants need light, water and the right temperature in order to grow and stay healthy. Can give examples (using images on cards as prompts or based on their learning) of what happens when a plant has not had sufficient water, light, a suitable temperature (i.e. is far too hot or far too cold). Can sort the majority of the statements correctly | | | | |
| **Themes and links** | | | | | | | | | |
| **Themes (types of enquiry)** | **Where these are covered:** | | | | | | | **Links across the Science curriculum** | |
| **Observing closely (using simple equipment)** | Lessons 1, 2, 3, 4 and 5  Can identify a healthy and unhealthy plant and give a reason for their choice  Can use the results from their enquiry to state that mature plants need light to grow healthily  Can use the results from their enquiry to state that mature plants need a suitable temperature to grow healthily  Can use the results from their enquiry to state that mature plants need water to grow healthily  Can state that some plants grow best in cold conditions while other plants grow best in warmer conditions. | | | | | | | |  |  | | --- | --- | | EYFS | To explore the natural world around them, making observations and drawing pictures of plants (EYFS framework; ELG The Natural World). | | 1 | Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.  Identify and describe the basic structure of a variety of common flowering plants, including trees. | | 2 |  | | 3 | Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves [and flowers].  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.  Investigate the way in which water is transported within plants. | | 4 | Recognise that living things can be grouped in a variety of ways.  Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. | | 5 | Describe the life process of reproduction in some plants and animals. | | 6 | Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants, and animals.  Give reasons for classifying plants and animals based on specific characteristics. | | |
| **Gathering and recording data to help in answering questions** | Lesson 1  Can observe mature plants to answer whether a plant is healthy or unhealthy.  Lessons 3 and 5  Can state that temperature is a measure of how hot or cold something is and that a thermometer is used to measure temperature  Can gather and record data from their enquiries to answer the questions: ‘Do mature plants need light?’ ‘Is mature plant growth affected by temperature?’ and ‘Do mature plants need water?’ | | | | | | |
| **Comparative and fair testing** | Lessons 2, 3 and 4  Can set up a simple comparative test enquiry to determine whether a mature plant requires light to grow healthily  Can set up a simple pattern seeking enquiry to determine whether a mature plant’s growth is affected by temperature  Can set up a simple comparative test enquiry to determine whether mature plants need water to grow healthily. | | | | | | |