**Year 3 Science Curriculum – Autumn 2**

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| **Theme: Flowering plants life cycles** | | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | | **Links across the curriculum** |
| Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | | | **Complete** | When two or more living things both require something which is in limited supply. | **Formation** | | How something is produced. | | Art:   * William Morris – the natural world to inspire designs.   DT:   * Cooking – making fruit muesli bricher   Geography:   * Local walks for trips – noticing nature   English:   * Oracy for presentation * The Last Garden by Rachel Ip |
| **Invent** | To create or design (something that has not existed before) | **Savoury** | | Not sweet. | |
| **Scar** | A blemish on the skin of fruit or an animal, produced as part of the healing process. | **Similar** | | Not identical but very alike. | |
| **Structure** | The way that the parts of something are joined together. |  | |  | |
| **Tier 3 vocabulary** [SNAP23\_Y3\_M6\_lifecycles\_ms.docx (live.com)](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fstatic.collins.rhapsode.com%2FSnap_Science%2FTeaching_Science%2FYear_3%2FSNAP23_Y3_M6_lifecycles_ms.docx&wdOrigin=BROWSELINK) | | | | | |
| **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:  - To identify and describe the functions of some parts of a flowering plant: roots, stem/trunk and leaves (Year 3 Biology – Plants).  - That plants need air, light, water, nutrients and room to grow (Year 3 Biology – Plants). | | | | | | This prepares children for later learning:   * About reproduction in plants (Year 5 Biology – Living things and their habitats). | | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | **Key Skills** | | | |
| What is inside a flower? | | * Children learn that flowers produce seeds. * Identify the sepals, petals, carpel including the ovary (female part) and stamens (male part). * They learn that a flower has male parts that produce pollen and a female part that contains the ovary which produces ovules. * Pollen is produced (the anther at the top of the stamen). * Different flowers will have different numbers, shapes and colours of sepals, petals and stamens. The top of the carpel (the stigma) may also be shaped differently. Some carpels end in a single point, while others may be split into a number of parts. | | | | Working scientifically:  ● Recording findings using simple scientific language, drawings, labelled diagrams, [keys, bar charts, and tables]. | | | |
| What is animal pollination? | | * In order for the flower to produce seeds, the pollen from one flower needs to be transferred to another flower and that this is called pollination. * Animals (mainly insects) can pollinate flowers. * Pollinators can be attracted to a flower by its colour and its scent. * Pollinators pick up nectar and pollen when they have visited a flower. * Pollen is then transferred to the top of the female part (carpel) of another flower. | | | |  | | | |
| What is wind pollination? | | * Flowers are pollinated by the wind. * The similarities and differences between wind- and insect-pollinated flowers. * Describe and explain the structure of a wind-pollinated flower. | | | | Conceptual knowledge:  ● Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.  Working scientifically:  ● Identifying differences, similarities or changes related to simple scientific ideas and processes | | | |
| What are fruits? | | * A fruit develops from a flower that has been pollinated. * After pollination the ovary gets bigger and becomes the fruit. * All fruits contain at least one seed. * Children make observational drawings of cut fruits. * Fruit develops from inside of the flower. * Some examples of fruits which can be found in the vegetable aisle in a supermarket or greengrocers are: peas, courgettes, pumpkins, tomatoes, beans, peppers, chillies, avocados. | | | | Working scientifically:  ● Identifying differences, similarities or changes related to simple scientific ideas and processes.  ● Recording findings using simple scientific language, drawings, labelled diagrams, [keys, bar charts, and tables]. | | | |
| How are seeds dispersed? | | * Seeds are moved away from the plant that produced them and that this is called seed dispersal. * Seeds are dispersed to avoid competition with the plant that produced them. * Seeds are dispersed by wind, water, animals eating fruit, seeds becoming attached to an animal, and through explosions of a seed pod (fruit). * How the structure of the seed and fruit relates to the way that it is dispersed. | | | | Working scientifically:  ● Asking relevant questions and using different types of scientific enquiries to answer them.  ● Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.  Scientific enquiry type:  ● Identifying and classifying. | | | |
| **Themes and links** | | | | | | | | | |
| **Themes (types of enquiry)** | **Where these are covered:** | | | | | | | **Links across the science curriculum** | |
| **Observation over time** |  | | | | | | | |  |  | | --- | --- | | **EYFS** |  | | **1** | Seasons | | **2** | Growing | | **3** |  | | **4** | Electricity | | **5** | Materials | | **6** | Classification of living things | | |
| **Research** |  | | | | | | |
| **Pattern seeking** |  | | | | | | |
| **Comparative and fair testing** | * Lesson 3 | | | | | | |
| **Identifying, classifying and grouping** | * Lesson 5 | | | | | | |  | |