**Year 4 Science Curriculum – Summer 2**

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| **Theme: Classification of plants and animals** | | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | | **Links across the curriculum** |
| To recognise that living things can be grouped in a variety of ways.  To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. | | | **Characteristic** | A feature that is typical of a particular living thing or material | **Feature** | | A distinctive characteristic of a living thing or material. | | Art   * Drawing leaves in pencil * Drawing leaves in colour * Drawing leaf patterns * Making paper leaves * Drawing pumpkins * Printing vegetable skins * Still life drawing   English   * Oracy   ICT   * Secondary research   Maths   * Creation of and interpretation of data from graphs and tables | |
| **Internal** | Inside | **Observable** | | Can be seen or measured | |
| **Segment** | A part of something that has been divided into sections | **Annelid** | | An invertebrate group with segmented bodies, no legs, no antennae, usually have bristles, although these may be too small to see | |
| **Branching key** | A way of sorting a small number of items using yes/no questions | **Arachnid** | | An invertebrate group with eight jointed legs, no wings and two body parts: head and abdomen | |
| **Tier 3 vocabulary** | [SNAP23\_Y4\_M6\_classification\_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_4%2FSNAP23_Y4_M6_classification_ms.docx&wdOrigin=BROWSELINK) | **Cold-blooded** | | Unable to regulate their own body temperature and so it changes with the surroundings | |
| **Crustacean** | An invertebrate group with ten or more pairs of jointed legs, no wings, three body parts (head, thorax and abdomen) protected by a harder outer shell, a segmented body and two pairs of antennae; most live in water | **Mollusc** | | An invertebrate group of soft-bodied animals with no legs, no segments, no wings, a muscular foot and most have tentacles and shells | |
| **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:   * about animal (vertebrate) classification and structure (Year 1 Biology – Animals, including humans) * to identify and name common wild and garden plants and deciduous and evergreen trees(Year 1 Biology – Plants) * about animal (vertebrate and invertebrate) classification (Year 2 Biology – Living things and their habitats) * about animal (vertebrate and invertebrate) stages of life (Year 2 Biology – Animals, including humans) * to notice differences between seed and bulb plant growth (Year 2 Biology – Plants) * about classification of rocks (Year 3 Chemistry – Rocks) * about how vertebrate and invertebrate bodies are supported (Year 3 Biology – Animals including humans). | | | | | | This prepares children for later learning:   * about differences in animal life cycles and life processes (Year 5 Biology – Living things and their habitats) * classification of living things (Year 6 Biology – Living things and their habitats). | | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | **Key Skills** | | | |
| How are living things classified? | | * Revisit vertebrate animal classification groups from Year 1 and Year 2. * Revisit plant groups of wild, garden, deciduous and evergreen plants from Year 1. * Revisit how plants grow from seeds and bulbs from Year 2. * One of the big ideas in science is that living things can be classified as either plants or animals. * Animals are then grouped into the five vertebrate groups and six invertebrate groups and that plants can be grouped as flowering and non-flowering. * Classify plants and animals into groups based on common observable characteristics. | | | | Working scientifically:   * identifying differences, similarities [or changes] related to simple scientific ideas and processes | | | |
| How are vertebrates classified? | | * Revisit classification of living things into plants and animals from Lesson 1. * The characteristics of the five vertebrate groups, including characteristics that are not observable in photographs. * The terms ‘warm-blooded’ and ‘cold-blooded’. * Classify animals into the five vertebrate groups with reasons for classification beyond observable characteristics. | | | | Working scientifically:   * identifying differences, similarities [or changes] related to simple scientific ideas and processes   Scientific enquiry type:   * research using secondary sources | | | |
| How are invertebrates classified? | | * Revisit classification of living things into plants and animals from Lesson 1 and subgroups of vertebrates from Lesson 2. * Learn about six of the invertebrate groups and the features that make them distinct from each other. * Classify animals into the six invertebrate groups using observable characteristics. | | | | Working scientifically:   * identifying differences, similarities [or changes] related to simple scientific ideas and processes | | | |
| Can you use a branching key? | | * Food is broken down mechanically and chemically and then absorbed into the body. * identify where nutrients and water are absorbed. * They select props to accurately model the role of the parts of the digestive system. * They evaluate the effectiveness of their model. | | | | Working scientifically:   * recording findings using simple scientific language, [drawings, labelled diagrams,] keys, [bar charts, and tables] * identifying differences, similarities [or changes] related to simple scientific ideas and processes | | | |
| 1. What is this living thing? | | * Children use several different branching keys to identify a range of living things. | | | | Working scientifically:   * recording findings using simple scientific language, [drawings, labelled diagrams,] keys, [bar charts, and tables] * identifying differences, similarities [or changes] related to simple scientific ideas and processes | | | |
| **Themes and links** | | | | | | | | | |
| **Themes (types of enquiry)** | **Where these are covered:** | | | | | | | **Links across the science curriculum** | |
| **Observation over time** | * Lesson 2 * Lesson 4 | | | | | | | |  |  | | --- | --- | | **EYFS** |  | | **1** | Identifying plants and their parts | | **2** | Growing healthy plants | | **3** | Flowering plants and plant growth | | **4** | Classification of plants and animals | | **5** | Human health | | **6** | Body health | | |
| **Research** | * Lesson 2 * Lesson 1 * Lesson 3 * Lesson 6 | | | | | | |
| **Pattern seeking** | * Lesson 5 | | | | | | |
| **Comparative and fair testing** | * Lesson 4 * Lesson 5 | | | | | | |
| **Identifying, classifying and grouping** | * Lesson 2 * Lesson 3 * Lesson 4 | | | | | | |  | |