**Year 4 Science Curriculum – Summer 2**

|  |
| --- |
| **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
 |  |