| Year 3/4/5/6 | Term: Spring 2 | Subject: Science (Living Things and their Habitats) | |
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| **Key Vocabulary:**<br><br>**Y4**<br>environment<br>flowering<br>non-flowering<br>plants<br>animals<br>vertebrate<br>danger<br><br>invertebrates - snails, slugs, worms, spiders, insects<br><br>vertebrate -<br>fish<br>amphibians<br>reptiles<br>birds<br>mammals<br><br>plants - flowering plants (including grasses), non-flowering (including mosses and ferns<br><br>human impact -<br>positive - nature reserves, ecologically planned parks, garden ponds<br><br>negative - population, development, litter, deforestation<br><br>**Y5**<br>life process of reproduction -<br>plants<br>animals<br>vegetable garden<br>flower border<br><br>reproduction -<br>plants - sexual, asexual<br>animals - sexual<br><br>life cycles -<br>mammal<br>amphibian<br>insect<br>bird<br><br>animal naturalists - David Attenborough<br><br>animal behaviourist - Jane Goodall<br><br>lifecycles around the world -<br>rainforest<br>oceans<br>desert<br><br>prehistoric similarities differences<br><br>**Y6**<br>micro-organisms<br>plants<br>animal<br>classification<br>classify animals<br><br>invertebrates -<br>insects<br>spiders<br>snails<br>worms<br><br>vertebrates -<br>fish<br>amphibians<br>reptiles<br>birds<br>mammals<br><br>scientists - Carl Linnaeus | **Key Questions:**<br>**Have the plants and animals in our local habitat changed?**<br>**How could we group living things?**<br>**How do humans positively and negatively impact the environment?**<br>**Can you make a guide or key for identifying local plants and animals?**<br>**How do life cycles of living things change?**<br>**What have David Attenborough and Jane Goodall achieved?**<br>**What are the different types of reproduction?**<br>**How are these life cycles similar/different?**<br>**Can we grow new plants using different parts of a plant?**<br>**How do animals change and grow over time?**<br>**How can we group and subdivide animals?**<br>**Who can see clues as to what classification group this animal belongs to?**<br>**Why are these animals in this group?**<br>**What did Carl Linnaeus achieve?**<br>**What can you find out about** | Resources<br>Books<br>Ipads<br>Worksheets<br>Clipboards | Cross-curricular links:<br>Maths<br>English<br>Geography |

| | unusual animals? | | |
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National Curriculum Objectives:

**Working scientifically**
- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.
- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments

**Living things and their habitats**
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 recognise that environments can change and that this can sometimes pose dangers to living things.
describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
describe the life process of reproduction in some plants and animals
describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals
give reasons for classifying plants and animals based on specific characteristics.

| Most children will be able to: understand why animals live in certain environments and that | Some children will be able to: identify and sort living things and discuss reasons why. | Some children will have developed further and will be able to: describe differences | |
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| change can lead to certain dangers. | | between life cycles and reproduction processes. | |
| Progression of Skills (Y3/4) | | Progression of Skills (Y5/6) | |

**Progression of Skills (Y3/4)**

**Sort / group / compare / classify / identify**
Make a simple guide to local living things.
Use guides or simple keys to classify / identify [local small invertebrates].
Use their observations] to identify and classify.
Record similarities, differences or changes related to simple scientific ideas or processes or more complex groups of objects/living things/living things/events and begin to give reasons for these.
**Research**
**finding things out using a wide range of secondary sources of information and recognising that scientific ideas change and develop over time**
Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.
Create/invent/ design something based on what they have found out applying both research and/or practical experiences. (Y3/4).
Find out about the work of famous scientists (historical & modern day) (Y3/4).
Communicating
Recording
recording data, reporting

**findings, presenting findings**
Record findings using simple scientific language and vocabulary, including discussions, oral and written explanations, notes, drawings (annotated), pictorial representations, labelled diagrams, tables and bar charts [where intervals and ranges agreed through discussion], displays or presentations.
Begin to select the most useful ways to record, classify and present data from a range of choices.
Make decisions on how best to] communicate their findings in ways

**Progression of Skills (Y5/6)**

**Sort / group / compare / classify / identify**
Compare and contrast things beyond their locality.
Compare more complex processes, systems, functions (e.g. life cycles of different living things, organ systems of different animals).
Suggest reasons for similarities and differences.
Use and develop classification systems, keys and other information records [databases] to classify or identify.
Compare and contrast more complex processes, systems, functions (e.g. sexual and asexual reproduction).
**Research**
finding things out using a wide range of secondary sources of information and recognising that scientific ideas change and develop over time
Research the work of famous scientists (historical and modern day) and use this to find out how scientific ideas have changed over time and had an impact on our lives.
Interview [people to find out information and collect data].
Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact.
Communicating
Recording
recording data, reporting

**findings, presenting findings**
Record data and results of increasing complexity using scientific diagrams and labels, recognised symbols, classification keys, tables, bar and line graphs, and models.
Report findings from enquiries using discussion, drawings [annotated], oral and written explanations of results, explanations involving causal relationships, and conclusions.
Present findings in written form, displays and other presentations (Y5/6)

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| that are appropriate for different audiences. (Y3/4) | Make decisions on the most appropriate format to present scientific data. |
| Planned Learning Experiences: | Assessment Opportunities and Learning Outcomes: |
| Session 1 explore, identify and classify living things | |
| Learning Objective:<br>Activity: Branching game (when finished) wildlife walk (FS area)<br>Groups of animals activity | Sort animals |
| Session 2 explore, identify and classify living things | |
| Learning Objective:<br>Activity: creating own classification keys | Create classification keys using relevant questions |
| Session 3 life cycles and processes | |
| Learning Objective:<br>Activity: life cycles | Research life cycles |
| Session 4 life cycles and processes | |
| Learning Objective:<br>Activity: life cycles posters and comparing | Create poster<br>Explain differences between life cycles |
| Session 5 environments | |
| Learning Objective:<br>Activity: exploring environments | Research environments and sort plants |
| Session 6 environments/report planning | |
| Learning Objective:<br>Activity: gathering habitat plans (from yesterday) and research on chosen animal | Research on chosen animal/living thing |
| Session 7 report writing | |
| Learning Objective:<br>Activity: start writing report | Finished report |
| Session 8 report writing | |
| Learning Objective:<br>Activity: finish report and edit (where appropriate) and proofread. | Finished report |