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| <b>Year Group</b> | 6        |
| <b>Term</b>       | Summer 1 |
| <b>Subject</b>    | Science  |

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| <b>Topic</b>             | Living Things and their Habitats – classification keys.                                                                                                                                                                                                                                                                                          |
| <b>Curriculum Intent</b> | Understand and explain that living things can be formally grouped according to characteristics. Plants and animals are two main groups but there are other living things that do not fit into these groups e.g. micro-organisms such as bacteria and yeast, and toadstools and mushrooms. Plants can make their own food whereas animals cannot. |

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| <b>Key Vocabulary</b> | Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering, non-flowering, deciduous, coniferous, evergreen. Classification keys, molluscs, arachnids, myriapods, crustaceans, features, characteristics. Microorganism, bacteria, fungi, virus. |
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| <b>Skills</b> | <ul style="list-style-type: none"> <li>• Use their science experiences to explore ideas and raise different kinds of questions.</li> <li>• Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions.</li> <li>• Make their own decisions about what observations to make, what measurements to use and how long to make them for.</li> <li>• Decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>• Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas.</li> </ul> |
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| <b>Knowledge</b> | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Give reasons for classifying plants and animals based on specific characteristics.</li> </ul> <p><b><u>Possible Misconceptions:</u></b> Some children may think:</p> <ul style="list-style-type: none"> <li>• all micro-organisms are harmful</li> <li>• mushrooms are plants.</li> <li>• Children incorrectly classifying animals e.g. they may believe that whales are fish. Children get easily confused with mammal and animal.</li> </ul> |
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| Wk | Learning Objective                                            | Activities                                                                                                                                                                                                                                                                                                                                                         | Outcome                                                                                                                                                                                                                                                |
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| 1  | To explain how you know if something is living or non-living. | Explain that animals can be classified into two groups: vertebrates and invertebrates. These can then be classified further into smaller groups based on shared characteristics. A scientist called Carl Linnaeus came up with a system for classifying living things. We are going to focus on sorting some vertebrates into more specific groups in this lesson. | Children are able to explain how they know something is <b>alive</b> . Children can sort <b>animals</b> by a system of classification into groups of vertebrates and invertebrates and then into groups of : birds, mammals, reptile, amphibian, fish. |
| 2  | To classify invertebrates according to their characteristics. | In this lesson, we are going to be focussing on classifying invertebrate groups (animals without backbones).<br><br>Recap on grouping vertebrates. Then explain that like we did with vertebrates, we can also classify invertebrates into smaller groups based on shared characteristics.                                                                         | Children will classify invertebrates according to their characteristics.                                                                                                                                                                               |
| 3  | To classify plants according to their characteristics.        | What are the features of flowering and non-flowering plants? • What are the differences between deciduous and evergreen trees? • What are the features of coniferous trees? • What are the different ways that scientists classify plants? • What questions can be used to create classification keys for plant?                                                   | Children will sort plants using a given classification key.<br>Children will devise their own questions to classify plants.                                                                                                                            |
| 4  | Week 4: To understand how classification keys work.           | Explain that we are going to be using classification keys in this lesson<br><br>Start with the children having a go at using a classification key.                                                                                                                                                                                                                 | Children will group a selection of sweets together creating a classification key.                                                                                                                                                                      |
| 5  | LO: To create a classification key for birds                  | . What differences can they see between the birds? What features would they use to classify the birds? Feedback to class. Talk about colours, shape, beaks. Any other distinguishing features? Remind children of the classification keys we looked at last week.                                                                                                  | Children will create a classification key for birds.                                                                                                                                                                                                   |
| 6  | LO: Classifying microorganisms.                               | What is a microorganism? • Where can bacteria be found and what can they do? • What diseases can viruses cause? • What infections can fungi cause? • How are some bacteria helpful for humans?                                                                                                                                                                     | Children will be able to describe the role that yeast plays in bread making.                                                                                                                                                                           |