| **Science Year 4 Medium Term Planning – Advent 1: Living things and their habitats** |
| --- |
| **National Curriculum*** 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
 |
| **Prior vocabulary knowledge**habitat, micro-habitat depend organism, reproduction |
|  | Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 |
| **Learning intention** | What are the characteristics of living things? | What animals are vertebrates?Lesson 2 and 3 can be combined. | What animals are invertebrates?be combined. | What groups are plants classified in? | What is classification? How do I use a key? | What happens if the environment in a habitat changes? |
| **Working Scientifically** |  |  | Setting up simple practical enquiries, comparative and fair tests.Gathering. recording, classifying and presenting data in a variety of ways to help in answering questions.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. | Using results to draw simple conclusions, make predictions for new values,suggest improvements and raise further questions. |  |
| **Recall and retrieval** | CQ: 1-2 | CQ: 1-6Mrs Gren and examples. | CQ: 7-11 | CQ: 7-16 | CQ: 17-18 | CQ: 18-20 . |
| **Sequence of knowledge throughout the lesson** | **Key knowledge**Retrieval: Mrs Gren and meaning.To know the meaning of biodiversity, organism,invertebrate and vertebrate.To know the difference between living things. | **Key knowledge**To know what a vertebrate is, different animal groups that have vertebrates; fish, amphibians, reptiles, mammals and birds.To know the characteristics of each group and animals that are in each group.CATEGORISE AND COMPARE VERTEBRATE | **Key knowledge**To know that insects,Annelids, Arachnids, molluscs are invertebrates, characteristics of each group and examples of animals in each group.CATEGORISE AND COMPARE INVERTEBRATE | **Key knowledge**To classify plants into flowering and non flowering:To know types of flowering and non flowering plants.To know plants that reproduce using flowers to make seeds: different types including trees,non-flowering plants: plants that reproduce using spores and seed cones and examples of these.CATEGORISE AND COMPARE FLOWERING AND NONFLOWERING PLANTS.  | **Key knowledge**To sort into groups action of to divide or sort into groups.To know that Carl Linnaeus invented the way to classify living things in 1737 through taxonomy.To know origin of taxonomy :Greek: arrange methodKnow hierarchy of biological classification (taxonomy) the top three layers Kingdom animal, plant, fungi… Phylum invertebrates, vertebrates… Class mammal, reptile.Know that a Classification key is a series of questions to identify a living thing that unlocks the identity of the living thing.CLASSIFY LIVING THINGS USING A KEY. | **Key knowledge**To know what a habitat, environment and ecosystem are and how they are affected by biotic and abiotic factors.Know what a nature reserve is and its role in protecting animals.To know what POLLUTION is and its negative affect on an environment and how it can change the balance of the ecosystem. |
| **Scaffolding** | stem sentences | Give an example sheet of each and fewer samples. | Give an example sheet of each and fewer samples. | Identification code and pictures with simple examples to classify. | Simple classification code to follow.Support to produce a simple classification. | Simple example to follow with possible options. |
| **Challenge** | give reasons for classification. | Greater variety to observe. | Greater variety to observe. | Greater variety and more complex categorising. | More complex classification. | Examples of pollution that have more possibilities and give reasons. |
| **Tier 2 vocabulary** | classification | classification | classification | classification | classification | interdependenceinteractbeneficialenvironment |
| **Tier 3** **vocabulary** | biotic | bioticvertebrate | bioticinvertebrate | biotic | biotichierarchyspeciesniche | bioticecosystem |