| **Science Year 4 Medium Term Planning – Advent 1: Living things and their habitats** | | | | | | | | | | | | | |
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| **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: 1-6  Mrs 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 method  Know 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 | | interdependence  interact  beneficial  environment | |
| **Tier 3**  **vocabulary** | | biotic | | biotic  vertebrate | | biotic  invertebrate | | biotic | | biotic  hierarchy  species  niche | | biotic  ecosystem | |