



Science Unit Planner Year: 4 Title: Animals and their habitats

<b>Unit Overview</b>	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. To recognise that environments can change and that this can sometimes pose dangers to living things.	
<b>Prior Learning/ Links</b>	EY – Children learn about different animals and look at life cycles. KS1 - Classifying animals into invertebrates and vertebrates. To know the features of fish, amphibians, birds, reptiles and mammals and name common animals from each group including pets. To name common plants and trees – including deciduous and evergreen. Sort animals into carnivores, herbivores and omnivores. Identify habitats to which different plants and animals are suited and suggest why. KS2 -Children look at animals and what they need to survive.	
<b>Unit Title:</b>	<b>Substantive Knowledge</b>	<b>Disciplinary Knowledge</b>
<b>Key Questions:</b>  <b>How can you sort plants and animals?</b>  <b>What is a habitat? How can a habitat be changed over time?</b>  <b>What positive or negative effects can humans have on a habitat?</b>	<ul style="list-style-type: none"> <li>• To know animals can be put into 2 groups:             <ul style="list-style-type: none"> <li>- Invertebrates and vertebrates.</li> <li>- To know vertebrates have a backbone and they can be grouped into:                 <ul style="list-style-type: none"> <li>- Fish – breathes with gills, lays eggs in water, has scales</li> <li>- Amphibians –born with gills then has lungs, damp skin</li> <li>- Birds – breathes with lungs, lays eggs with shell, feathers</li> <li>- Reptiles – breathes with lungs, lays eggs on land, scaly skin.</li> <li>- Mammals – breathes with lungs, has hair or fur, babies are born live, babies feed on mothers milk.</li> </ul> </li> </ul> </li> <li>• To know invertebrates do not have a backbone and can be classified into 3 main groups:             <ul style="list-style-type: none"> <li>-Insects – 3 body sections, 6 legs</li> <li>-Arachnids – 2 body sections, 8 legs</li> <li>Molluscs –slimy foot, often have a shell.</li> </ul> </li> <li>• To know plants can be classified into flowering and non-flowering plants. Flowering plants contain: Cereals, garden plants, deciduous trees. Non- flowering plants containing : Algae, coniferous trees</li> <li>• To recognise how habitats can change over time including the weather effects habitats. (bird migration/hibernation)</li> <li>• To be able to state some of the positive impact humans can have on habitats within the local area and other areas e.g. nature reserves, biomes, garden ponds etc.</li> <li>• To know the negative impact humans have on the environment locally e.g. deforestation, construction, droughts, flood etc.</li> </ul>	<b>Questioning and Planning</b> To ask relevant questions and set up simple scientific enquiries.  <b>Observation and Measurement</b> To make careful observations when conducting a test  <b>Recording and Presenting</b> Present data in a variety of ways  <b>Analysing and Evaluating</b> Use results to draw conclusions and to evaluate the effectiveness of the enquiry. Use evidence to support findings.



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Vocabulary	Trips/ Visits/Useful Websites/ Resources	Key Misconceptions:
<p><b>Substantive:</b>            Petal            Seed            Carpel            Stamen            Pollen            Dispersal            Nectar            Fertilisation            Biomes            Classification key            Criteria            Habitat            Invertebrate            Vertebrate            Organism            Reptile            Mammal            Amphibian            Migration            Hibernation</p> <p><b>Disciplinary:</b>            Plan            Observe            Predict            Equipment            Safety            Evidence            Record</p>	<p><b>Visit Copperas fields – there is a pond to study the positive human impact on the environment.</b></p> <p><b>Martin Mere – bird migration</b></p>	<p>Jellyfish are not a fish - Jellyfish do not have a backbone and are classified as invertebrates ( cnidarians taken from the Greek word meaning nettle as they sting)</p>