

Science Progression in Living Things and their Habitats

Essential characteristics of scientists

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings
- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings
- High levels of originality, imagination or innovation in the application of skills
- The ability to undertake practical work in a variety of contexts, including fieldwork
- A passion for science and its application in past, present and future technologies

Year Group	Key Skills	Key Vocabulary
EYFS	• Explore the natural world around them, making observations and drawing pictures of animals and plants • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	
Year 1/2	• Explore and compare the differences between things that are living, that are dead and that have never been alive • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including micro-habitats • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food	• alive • dead • never alive • cells • move • reproduce • nutrition • growth • habitat • environment • energy • food chain
Year 3/4	• Recognise that living things can be grouped in a variety of ways • Explore and use classification keys • Recognise that environments can change and that this can sometimes pose dangers to specific habitats	• vertebrates • invertebrates • insect • arachnid • mollusc

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		• flowering plants • non-flowering plants • grasses, cereals, garden shrubs, deciduous trees • coniferous • algae • gills • fins • scales • lungs • body temperature • section
Year 5/6	• 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 • Give reasons for classifying plants and animals based on specific characteristics	• life cycle • reproduction • two parent reproduction • one parent reproduction • transformation • chimpanzee • taxonomy • classification • distinguish
KS 3	• Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta • Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms • Differences between species	