



Progression of knowledge science – Living Things (Biology)

Threshold Concepts <i>This concept involves becoming familiar with a wider range of living things, including insects and understanding life processes.</i>	EYFS	Year 2	Year 4	Year 5	Year 6
<p>KS 1</p> <ul style="list-style-type: none"> • 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. <p>LKS2</p> <ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways. • Explore and use classification keys. 	<ul style="list-style-type: none"> • Explore the natural world around them, make observations and draw pictures of animals and plants. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> • Identify the differences between things that are living, dead, and things that have never been alive, using some of the 7 life processes (movement, respiration, sensitivity, growth, reproduction, excretion, nutrition). • Identify that most living things live in habitats to which they are suited. • Explain in simple terms how an animal or plant is suited to its habitat. • Name a variety of plants and animals 	<ul style="list-style-type: none"> • Know the 7 life processes of living organisms. • Use the 7 life processes to determine if an organism is living. • Describe similarities and differences between examples of plants and animals. • Know the features of mammals, amphibians, fish, birds, reptiles (vertebrates) and invertebrates. • Group living things in a variety of ways using key characteristics. 	<ul style="list-style-type: none"> • Know that reproduction is when an animal or plant produces one or more individuals similar to itself. • Explain that sexual reproduction requires both male and female DNA (sex cells) and will produce offspring that are similar, but not identical to the parents. • Explain that asexual reproduction will produce offspring that is identical to the parent and only requires one parent e.g., bulbs, 	<ul style="list-style-type: none"> • Know that living things can be grouped according to different criteria. • Know that a cell is made up of nucleus, cytoplasm and membrane. • Know that living things can be multicellular or unicellular (bacteria). • Explain in simple terms how the Linnaeus system is used to classify living things. • Explain why we need to group living things. • Explain possible difficulties with classification



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<ul style="list-style-type: none"> • Recognise that environments can change and that this can sometimes pose dangers to specific habitats. <p>UKS2</p> <ul style="list-style-type: none"> • 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. 		<p>in their habitats, including micro-habitats.</p> <ul style="list-style-type: none"> • Explain that different conditions in a habitat and micro habitat can affect the number and type of plants/animals that live there. • Describe how plants and animals depend on each other for food and shelter. • 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. <p>Construct a simple food chain that includes humans (e.g. grass, cow, human) with arrows pointing</p>	<ul style="list-style-type: none"> • Know and explore the work of Carl Linnaeus. • Use classification keys to help group and identify a variety of living things in their local and wider environment. • Use classification keys to name a variety of living things. • Recognise that environments can change, and this can sometimes pose dangers to living things. • Understand that human actions can impact on the environment and suggest some solutions to the issues. 	<p>tubers and runners.</p> <ul style="list-style-type: none"> • Explain the life cycle of a mammal, amphibian, insect and a bird. • Explain the process of metamorphosis using frogs and butterflies as examples. • Describe the differences in the life cycles of a mammal, amphibian, insect and a bird. • Use prior knowledge of parts of a flower to explain the stages involved in the reproduction process (pollination, fertilisation and germination). 	<p>(penguins and whales).</p> <ul style="list-style-type: none"> • Know that classification keys are used to group living things based on recognisable characteristics. • Construct a classification key. • Explain what microorganisms are and can name some. • Give examples of some situations where microorganisms can be helpful. • Give examples of some situations where microorganisms can be harmful.
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Progression of skills to KS3 are detailed on living things / trust science sheets

Links from Reception Development Matters are detailed on the Reception Termly Planning Document