

Foston CE, Terrington CE VA & Stillington Primary Schools in Collaboration with Langton Primary School Progression Map

Subject: Biology- Investigating Living Things

Subject Intent:

Within the Foston, Stillington and Terrington Federation, in collaboration with Langton Primary School, we intend that all our children will develop a deep curiosity about the world around them, and to experience the wonder which comes with gaining a knowledge and understanding about the processes and systems they can and can't see.

Our children will further develop:

- 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;
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations;
- Scientific enquiry skills to be embedded in each topic throughout the school to allow the children to build upon prior knowledge;
- The ability to undertake practical work in a variety of contexts;
- Have a clear understanding of the jobs available from science specialisms.

Key Concept	Overview	EYFS	Key Stage 1	LKS2	UKS2
Investigating Living Things	Topic	Year A Spring term 1 Habitats -Polar habitats Year B Spring Term 1 Habitats -Woodlands -Rainforests	Living things and their habitats (Staying Alive Cycle A, Animal Safari Cycle B)	Living Things and their Habitats	Living Things and their Habitats
	Objectives NC / Milestones	3 and 4 years Begin to understand the need to respect and care for the natural environment and all living things.	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	LKS2 Recognise that living things can be grouped in a variety of ways. Explore and use classification keys.	UKS2 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.

	<p>Use all their senses in hands-on exploration of natural materials.</p> <p>Reception Explore the natural world around them.</p> <p>Know some similarities and differences between the natural world around them and contrasting environments.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other.</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> <p>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>	<p>Recognise that environments can change and that this can sometimes pose dangers to specific habitat</p>	<p>Describe how living things are classified into broad groups according to common observable characteristics.</p> <p>Give reasons for classifying plants and animals based on specific characteristics</p>
Knowledge	<p>3 and 4 years</p> <p>To ask and attempt to answer “why” questions.</p> <p>Reception</p> <p>To be able to ask questions to find out more and to check</p>	<p>That there are differences between those things which are living, dead and those things which have never been alive.</p> <p>Specific example/s to be taught: Water Table Teddy bear Log Tree Book</p>	<p>To recognise that living things can be grouped in a variety of different ways.</p> <p>Specific example/s to be taught: Fish Amphibians Reptiles Birds Mammals</p>	<p>To describe the differences between life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>Specific example/s to be taught: Human Frog Ladybird Robin</p>

		<p>what has been said to them.</p> <p>To articulate their ideas and thoughts in well-formed sentences.</p> <p>To use new vocabulary in different contexts.</p>	<p>Mushroom Computer Wind Bear Seed Sand</p> <p>-</p> <p>That most organisms live in habitats that they are suited to, and that these habitats provide for their basic needs.</p> <p>Specific example/s to be taught: Shark – ocean Gull – rocky coastal Pigeon – city centre Monkey – rainforest Wolf – forest Penguin – Antarctic</p> <p>-</p> <p>That the following plants and animals live in specific habitats:</p> <p>Specific example/s to be taught: Shark – ocean Gull – rocky coastal Pigeon – city centre Monkey – rainforest</p>	<p>To be able to explore and use classification keys.</p> <p>Specific example/s to be taught: Dichotomous classification keys</p> <p>-</p> <p>To recognise that environments can change and that this can sometimes pose dangers to specific habitats.</p> <p>Specific example/s to be taught: Loss of sea ice – polar bears Deforestation – jaguars Urbanisation – hedgehogs Intensive farming – wildflowers</p> <p>-</p> <p>Group living things in a variety of different ways</p> <p>Specific example/s to be taught: Organisms: ant, dolphin, shark, bear, apple, bee, apple tree, beaver, squirrel, rabbit, polar bear, rose, turtle, snake, slug, iguana, tiger, buttercup, beetle, zebra, crocodile, fern, lionfish, fern tree.</p> <p>Groups: animals, flowering plants, mammals, aquatic animals, herbivores,</p>	<p>To describe the life process of reproduction in some plants and animals.</p> <p>Specific example/s to be taught: Sexual reproduction between birds. Flowering plant reproduction Vegetative reproduction</p> <p>NB: Human reproduction covered in PSHE lessons.</p> <p>-</p> <p>To describe how living things are classified into broad groups according to common observable characteristics.</p> <p>Specific example/s to be taught: Vertebrates Invertebrates Tetrapods Oviparous animals Aquatic animals Insects</p> <p>-</p> <p>To give reasons for classifying plants and animals based on specific characteristics.</p> <p>Specific example/s to be taught: Fish</p>
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	<p>Vocabulary</p>	<p>Polar Habitats habitat, Arctic, Antartica, polar bear, igloo, penguins, habitat, snowflake, iceberg, Woodlands habitat, woods, forest, trees, birds, squirrel, foxes, hedgehog, Rainforests habitat, sloth, fruit bat, Amazon, rainfall, tropical, canopy, fern, leaves</p>	<p>Reproduction - The process through which young are produced.</p> <p>Organism – This is another word that can be used to mean ‘living things’.</p> <p>Habitats – The specific area or place in which particular animals or plants may live.</p> <p>Food chains – A diagram which shows how the energy flows from food to what eats it.</p> <p>Producer – organisms which make their own food from sunlight.</p> <p>Consumer – an organism that feeds on other organisms.</p> <p>Predator – an animal which eats other animals.</p> <p>Plants – living things which grow from the soil</p> <p>Flowering plants – any plant which makes a flower</p>	<p>LKS2</p> <p>Organisms - This is another word that can be used to mean ‘living things’.</p> <p>Environment - An environment contains many habitats and these include areas where there are both living and non-living things.</p> <p>Endangered species - A plant or animal where there are not many of their species left and scientists are concerned that the species may become extinct.</p> <p>Extinct - When a species has no more members alive on the planet, it is extinct.</p> <p>Mammals – an organism which gives birth to live young.</p> <p>Aquatic animals – organisms which live in water.</p> <p>Herbivores – organisms which mostly eat plants.</p> <p>Carnivores – organisms which mostly eat meat.</p> <p>Omnivores – organisms which eat both meat and plants.</p>	<p>UKS2</p> <p>Fungi - a simple organism which is neither a plant nor an animal.</p> <p>Protist – single celled, microscopic organisms.</p> <p>Monera - all one celled living organisms, including bacteria.</p> <p>Oviparous animals – an organism which produces eggs which hatch outside of the female.</p> <p>Tetrapods – vertebrates with four limbs.</p> <p>Sexual reproduction – when a sperm from a male fertilises an egg from a female.</p> <p>Zygote cell – fertilised egg cell.</p> <p>Sperm cell – male reproductive cells.</p> <p>Egg cells – female reproductive cell.</p>
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