Science – Year 5

Summer 2	Living things and their habitats					
Prior learning	Year 1 – identification of common animal groups, Year 2 – habitats; Year 4 – habitats, classification, conservation;					
Lesson objective	Understand the life process of a plant	Understand the life cycles of mammals	Compare the life cycles of insects and amphibians	Understand the life cycle of birds and reptiles	Know about the life and work of Jane Goodall and David Attenborough	Research and present the life cycle of a creature
Key vocabulary	reproduction asexual fertilisation tuber genes	pouch mammary glands placental mammal monotreme mammal marsupial	metamorphosis caterpillar amphibian larva pupa	egg fledgling egg tooth hatch embryo	documentary naturalist primatologist endangered natural sciences	living organism reproduction life cycle vertebrate warm-blooded
Creative context						
Substantive knowledge	Describe the life process of reproduction in some plants and animals	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	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 the differences in the life cycles of a mammal, an amphibian, an insect and a bird
Disciplinary knowledge	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	Reporting and presenting findings from enquiries – including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations	Reporting and presenting findings from enquiries – including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations	Reporting and presenting findings from enquiries – including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations	Reporting and presenting findings from enquiries – including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations	Identifying scientific evidence that has been used to support or refute ideas or arguments

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Recorded learning	Take cuttings of a plant and add some rooting powder to help it grow. Predict what their new cutting of a plant could turn into by drawing a diagram and recording their predictions. Challenge Task: Research how pollination can be encouraged between plants. Is there anything we can do to help plants reproduce?	Put different life cycles in order from birth to death. Write a paragraph, to describe the key features of each given mammal's life cycle and draw an accompanying diagram. Challenge Task: Do all mammal life cycles look the same? Encourage them to research the different names for young mammal life cycles and investigate how they differs depending on the type of mammal.	Create a pinwheel to demonstrate the different stages of life of an amphibian and an insect. Describe how they are similar in a paragraph. Challenge Task: Research the differences between incomplete and complete metamorphosis. Can they discover which insects or amphibians have these life cycles?	Dissect an egg and complete the egg dissection sheet with the information provided. Draw an egg and label the key parts, writing a short explanation of what each part does. Challenge Task: Draw and record the life cycle of a bird. Ask them to record each stage of the bird's life cycle and research an interesting fact about each stage.	Research and explore the work of Jane Goodall and David Attenborough and produce a presentation of their findings. Challenge Task: Why is David Attenborough and Jane Goodall's research and study was so important for animal conservation.	Research and present the life cycle and important information about a favourite living organism. Challenge Task: Represent information about a made up or imaginary creature. Encourage them to decide how it can be classified and what the life cycle would look like.
Future learning	Year 6 – living things and their habitat, classification					