Brough Primary School – Curriculum Intention Plan 2021 - 2022

Subject: Science (Whole of Spring Term) **Year Group:** Year 5		**Area of learning: All Living things and their habitats**
Links to previous work/Remember when	• Year 3&4 - knowing that animals including humans need the right types of food, knowing they cannot make their own food and that they get nutrition from what they eat; • Year 3&4 - knowing that humans and some animals have skeletons and muscles for support, protection and movement; • Year 3&4 - knowing that living things can be grouped in a variety of ways; • Year 3&4 - exploring and using classification keys to help group, identify and name a variety of living things in the local and wider environment; • Year 3&4 - knowing that environments can change which can cause problems for living things. • • <u>Working Scientifically</u> • being able to ask and investigate relevant scientific questions; • setting up simple scientific enquiries; • making systematic and careful observations; • gathering, recording and presenting data; • reporting on findings both oral and written; • using results to draw simple conclusions • using straight forward scientific evidence to support what they have found out.	
Term	**Year 5**	**Key Skills to be taught**
Spring 2022 What the children should know at the end of this series of lessons		• Knowledge and skills required to describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird; • Describe the life processes of reproduction in some plants and animals, including the sexual and asexual reproduction of plants, and sexual reproduction in animals. • An understanding of the work of David Attenborough • <u>Working Scientifically</u> • Develop their knowledge of planning different scientific investigations to answer questions, including recognising and controlling variables. • Continue to use scientific equipment to measure but with increasing accuracy. • How to record data in increasing complexity through diagrams, labels, tables, bar and line graphs. • Using test results to make predictions and set up comparative and fair tests. • Reporting and presenting findings from investigations in oral and written forms for display and other presentations. • Identify how scientific evidence has been used to support or discount ideas and arguments.

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Vocabulary
Gamete, stamen, stigma, carpel, pistil, pollination, germination, flowering, life cycle, seed, pollen, anther, filament, style, ovary, botanical illustration, dissection, Corm, bulb, spores, cutting, fern, moss, liverwort, tubers, asexual, non-flowering, propagation, artificial, natural, Life cycle, asexual & sexual reproduction, metamorphosis, amphibian, insect, Mammal, bird, life cycle, gestation, foetus, sperm, egg, uterus, chick, egg, baby, adult, Life cycle, mammal, bird, amphibian, insect, reproduction, Natural scientist, naturalist, observation, conservation, endangered.

Sequence of learning	**Objectives and suggested details provided by subject leader.**
1	Recap prior learning about animals and their habitats to allow you to get an understanding of how much or the prior learning the children remember. • Could be via a prepared quiz or alternative that deals with food and nutrition, skeletons and their function, classification of living things and a basic understanding of environmental change.
2	Describe the life processes of reproduction in some plants. • Dissect and label the parts of a flower, identifying the male and female gametes • Make a detailed watercolour pencil drawing of a flowering plant in the style of a Linnaean illustration • Research the life cycle and reproduction of their flowering plant
3	Describe asexual reproduction in some plants. • Draw botanical illustrations using watercolour pencils that show the life cycle of some plants that reproduce asexually • Identify and be able to explain the ways that plants can reproduce asexually, both naturally and artificially • Set up an investigation into artificial asexual reproduction in flowering plants
4	Describe the differences in life cycles of a mammal, an amphibian, an insect and a bird. • Draw zoological illustration of the lifecycles of two insects and an amphibian • Research the life cycle of insects and amphibians noting that they reproduce sexually
5	Describe the differences in life cycles of a mammal, an amphibian, an insect and a bird. • Identify a local mammal and bird species and research their life cycles online • Draw and annotate a life cycle zoological illustration for both mammal and bird lifecycles
6	Research the life and work of a famous naturalist such as Sir David Attenborough or Jane Goodall. • Make observations, record findings and draw conclusions, as natural scientists • Research and present, in role, information on a significant naturalist
Assessment task (2 weeks work)	Research the life cycles of an insect, amphibian, mammal, bird and plant that contrasts those already studied. Create a series of annotated scientific illustrations that reflect the life cycles of the animals and plants

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	they have researched. Use all skills developed so far for sketching and developing colour and texture.

Learning Outcome/product
In the assessment task, children will demonstrate their understanding of the differences in the life cycle of mammals, amphibians, insects and birds. Their scientific illustrations should include information on reproduction within their annotated diagrams.

Assessment records	**List only those children who have not achieved the expected outcomes.**

Assessment records	**List only those children who have exceeded the expected outcomes.**

End of unit assessment question
E.g. How does the life cycles of mammals differ from amphibians or insects?