



Year 6 – Evolution and Inheritance



Working Scientifically	Sticky Knowledge	Linked Texts	Key Scientists
- Recall and use specific scientific vocabulary accurately (year group key vocabulary) - Plan different types of scientific enquiries to answer questions, include recognise and control variables where necessary - Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why - Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs - Report and present findings from enquiries, include conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations - Identify scientific evidence that has been used to support or refute ideas or arguments. - Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas	Life cycles have evolved to help organisms survive to adulthood. Over time the characteristics that are most suited to the environment become increasingly common. <i>The following could be duplicated in Year 6 Living things and their habitats.</i> Organisms best suited to their environment are more likely to survive long enough to reproduce. Organisms are best adapted to reproduce are more likely to do so. Organisms reproduce and offspring have similar characteristic patterns. Variation exists within a population (and between offspring of some plants) Competition exists for resources and mates	One Smart Fish (Christopher Wormell) The Molliebird (Jules Pottle) Our Family Tree (Lisa Westberg Peters)	Charles Darwin and Alfred Russel Wallace (Theory of Evolution by Natural Selection) Jane Goodall (Chimpanzees) Hippocrates -The Father of Medicine Rosalind Franklin - DNA Nettie Stevens - Geneticist Professor Alice Roberts - Evolutionary biologist
Key Question(s):	Key Question(s):	WS vocabulary	
What is a palaeontologist? Why are fossils useful in science? Describe how a living thing has changed over time. Why do living things produce offspring of the same kind? Are offspring are always identical to their parent? Can you give any examples of identical offspring? Explain why. Can you explain how variation in an offspring can make an animal less able to survive in a particular environment? Using a specific plant as an example, how has it adapted to suit its environment?	Why are we all different? What is variation, and why is it important? How did life begin on Earth? How do we change? What evidence is there for evolution? How does evolution happen? What reasons do animals become extinct? Polar Bears habitat is rapidly changing, what possible futures do they face and can we predict which is most likely? What is evolution? Can you give examples? What are the advantages and disadvantages to how humans have evolved?	Investigation, enquiry, prediction, variable, dependent variable, independent variable, constant, patterns, equipment, apparatus, method, results, conclusion, graph, patterns, distance, data, theory, fair test, reasoning	

Teaching suggestions in Enquiry types

<u>Comparative tests</u>	<u>Identify & Classify</u>	<u>Observation over time</u>	<u>Pattern Seeking</u>	<u>Research</u>	<u>BIG Question – Problem solving</u>
What is the most common eye colour in our class? 	Compare the skeletons of apes, humans, and Neanderthals – how are they similar, and how are they different? Can you classify these observations into evidence for the idea of evolution, and evidence against? 	How has the skeleton of the horse changed over time? 	Is there a pattern between the size and shape of a bird's beak and the food it will eat? 	What happened when Charles Darwin visited the Galapagos islands? What ideas did American geneticist Barbara McClintock have about genes that won her a Nobel Prize? 	What is evolution, how does it happen and how do scientists know? (Also use EXPLORIFY) <u>Assessment Opportunity</u> 