



'An ambitious curriculum that meets the needs of all'

## Medium Term Planning - Topic: Wonders of the natural world

<b>Curriculum Intent</b>	
<b>Skills/National Curriculum Links</b>	<p>In addition to working further on objectives from the Fieldwork, Evolution, Plant Reproduction and Interdependence &amp; Variation topics, pupils will be taught, following National Curriculum guidelines, the following this topic:</p> <ul style="list-style-type: none"> <li>• Stewardship of the natural world</li> <li>• Animal behaviours</li> <li>• Sexual and asexual reproduction</li> </ul>
<b>Spiritual, moral, social, and cultural development</b>	<p><b>SMSC:</b> Enable students to develop their self-knowledge of their own body.</p> <p><b>PSHE/British Values:</b> Students will learn about the world around them, stewardship of the natural environment and saving the world.</p> <p><b>Skills Builder:</b> Listening (Receiving, retaining and processing info), Speaking (The oral transmission of info and ideas), Problem solving (Find a solution to a situation or challenge), Creativity (imagination and generation of new ideas), Staying positive (The ability to use tactics and strategies to overcome setbacks), aiming high (Set clear and tangible goals), Leadership and teamwork</p>
<b>Numeracy</b>	Graph skills
<b>Literacy</b>	<p><b>Vocabulary Tier 2: behaviour, incomplete, complete, external, internal</b></p> <p><b>Vocabulary Tier 3: sexual, asexual, vertebrae, invertebrate, life cycle, metamorphosis, adaptation, mimicry, fertilisation</b></p> <p><b>Reading:</b> Following a written method and read risk assessments. Students may be directed to the textbook; this could be in lesson or at home on Kerboodle.</p> <p><b>Writing:</b> Describing and explaining scientific phenomenon, free response writing for describing precautions taken, use of word mat to promote sentence formation.</p> <p><b>Oracy:</b> inclusion of BEST resources which are research evidence on common misunderstandings in science, effective diagnostic questioning and formative assessment, constructivist approaches to building understanding, and effective sequencing of key concepts that promote metacognitive talk and dialogue.</p>
<b>Becoming future ready</b>	<p><b>Careers/Employability:</b></p> <ul style="list-style-type: none"> <li>- Zoologist</li> <li>- Conservationist</li> <li>- Tree surgeon</li> <li>- Vet</li> </ul>
<b>Adaptation</b>	Throughout this topic, quality first teaching will provide differentiation:
<b>QFT/SEND Provision</b>	<p><b>By product:</b> Linear assessments and differentiated practical work.</p> <p><b>By resource:</b> Lessons are differentiated per class and students, worksheets are coloured blue if support and assessments are linear.</p> <p><b>By Intervention:</b> by providing different levels of supervision and support</p> <p><b>By Progressive Questioning:</b> exploring pupils' understanding through interactive dialogue.</p> <p><b>By Grouping:</b> according to prior attainment, gender, social preference, preferred learning style.</p> <p><b>By Task:</b> Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range.</p> <p><b>By Offering Optional Activities:</b> In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p>

<b>Implementation Curriculum Delivery</b>	<p>To be able to:</p> <p>To know some features of vertebrates and invertebrates. Know - To be able to describe ways in which organisms can be classified. Apply - To be able to describe and explain ways in which organisms can be classified. Extend - To be able to describe and explain ways in which organisms can be classified. Evaluate the anomaly in the modern classification system</p> <p>Know -be able to state different reproductive strategies. Apply - To be able to compare different reproductive strategies. Extend - To be able to state and explain the advantages and disadvantages of different types of reproduction</p> <p>Know - To be able to describe the lifecycle of an insect. Apply - To be able to describe the lifecycle of an insect and describe the life cycle as complete or incomplete metamorphosis. Extend -To be able to evaluate the advantages and disadvantages of complete or incomplete metamorphosis.</p> <p>To know that development of the zygote may be internal or external. Know -what gametes and zygotes are Apply - To know that sperm and egg cells are called gametes and that gametes fuse to form a zygote Extend To know that sperm and egg cells are called gametes and that gametes fuse to form a zygote. Be able to explain what the next stage is for the zygote.</p> <p>Know -understand that some species use camouflage as an adaption to survive. Apply - Know that some species use mimicry as an adaptation -Know how the axolotl is adapted for exchange of gases in water Extend -- Know how the axolotl is adapted for exchange of gases in water and describe how each adaptation enables the organism to be successful</p> <p>Know - Know that gorillas live in social groups and that this improves survival Apply - Know that gorillas live in social groups and explain how this improves survival Extend - Know that young gorillas learn some behaviour from older members of the group Evaluate data relating to ecotourism and gorillas</p>	
<b>Learning Outcomes (Core Knowledge)</b>		
<b>Current learning to be developed in the future within:</b>	<p><b>Before:</b></p> <p>From KS2 you know that the life cycle of plants and animals include growth, development and reproduction. Humans and other animals have skeletons. Animals have a skeleton for support and protection. Earlier in KS3 animal adaptation and human and plant reproduction have been covered.</p>	<p><b>Future:</b></p> <p>The GCSE topic of biodiversity and reproduction in Biology will look at some of these themes further.</p>
<b>Assessment</b>	<p>Refer to assessment maps for formative and summative assessment opportunities.</p>	
<b>Impact</b>	<p>Attainment and Progress – Refer to assessment results / data review documentation.</p>	

