



Unit: Genes and Evolution	<ol style="list-style-type: none"> 1. Careers 2. DNA Model 3. DNA (Reading) 4. Genes and Chromosomes 5. Extracting DNA 6. Genetics 	<ol style="list-style-type: none"> 7. Punnet Squares 8. Variation 9. Adaptations in Animals 10. Adaptations in Plants 11. Predator Prey Relationships 	<ol style="list-style-type: none"> 12. Natural Selection 13. Fossils 14. Endangered Species 15. Galapagos Tortoise (Reading) 16. Maintaining Biodiversity
LESSON TOPIC QUESTION(S)			
Knowledge & Skills Development	<ul style="list-style-type: none"> • Knowledge of DNA, and its importance. • Understanding how characteristics are inherited • Predicting the probability of characteristics being passed from parents to offspring • Understanding the difference between inherited and environmental characteristics • Describing resources that organisms compete for • Identifying how living things are adapted to their environments 	<ul style="list-style-type: none"> • Understanding of working in a collaborative manner in research science. • Interpreting predator /prey graphs • Describe and explain the current theory of evolution. • Understanding of why theories change over time. • Understanding of the awareness of conservation projects. • Understanding and awareness of the impact of human activities on ecosystems and how the effects can be minimised 	
Assessment / Feedback Opportunities	Formative Assessment Teacher questioning Quizzes Mid topic assessment	Summative assessment End of topic assessment	
Key Vocabulary	Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly Variation, Inheritance, Chromosome, Dna, Gene, Natural Selection, Evolution, Extinction, Endangered, Conservation, Adaptation, Biodiversity, Ecosystem, Variation, Continuous Variation, Discontinuous Variation, Gamete, Heterozygous, Homozygous, Allele, Competition		
Literacy/Reading Opportunities	Two dedicated reading lessons Subject specific vocabulary introduced before reading of related texts Word etymology from Latin and Greek roots Reading of simple and complex sentences, paragraphs, articles Scientific writing including structuring methods, comparisons and evaluations		
Cross Curricular Themes	Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators, significant figures		

Personal Development (Including British Values, RSE, Citizenship)	PSHE – Global responsibility for the planet (endangered species and maintaining biodiversity)
Career Opportunities	Dedicated careers lesson at start of topic Conservation Worker, Research Scientist. Veterinary Nurse, Vet, Zookeeper, Botanist