


	Autumn	Spring	Summer
Knowledge & Skills	<p><b>Ecology</b></p> <ul style="list-style-type: none"><li>• Interdependence</li><li>• Field investigation required practical</li><li>• Extremophiles</li><li>• Adaptation &amp; competition</li><li>• Biodiversity &amp; maintaining biodiversity</li><li>• Impact of environmental change</li><li>• Land use</li><li>• Waste management</li><li>• Decay &amp; decay required practical (SS)</li><li>• Deforestation &amp; peat bog destruction</li><li>• Carbon &amp; water cycles</li><li>• Global warming</li><li>• Pyramids of biomass &amp; trophic levels (SS)</li><li>• Farming &amp; sustainable food production (SS)</li><li>• Food security &amp; role of biotechnology (SS)</li></ul> <p><b>Homeostasis &amp; Response</b></p> <ul style="list-style-type: none"><li>• Homeostasis</li><li>• Negative feedback</li><li>• Hormonal coordination in humans</li><li>• Control of blood glucose</li><li>• Hormones in reproduction</li><li>• Contraception &amp; fertility treatment</li><li>• Control of body temperature (SS)</li><li>• Maintaining water balance (SS)</li><li>• Plant hormones &amp; their uses (SS)</li><li>• Plant responses to light required practical (SS)</li><li>• Human nervous system</li><li>• Reaction time required practical</li><li>• The brain (SS)</li><li>• The eye (SS)</li></ul>	<p><b>Inheritance &amp; Genetics</b></p> <ul style="list-style-type: none"><li>• Reproduction</li><li>• Evaluating sexual and asexual reproduction (SS)</li><li>• Meiosis</li><li>• DNA structure (SS)</li><li>• DNA &amp; the genome</li><li>• Inheritance in action</li><li>• Understanding genetics (SS)</li><li>• Inherited disorders</li><li>• Screening for genetic disorders</li><li>• Genetic screening</li><li>• Selective breeding</li><li>• Cloning</li></ul> <p><b>Evolution &amp; Genetics</b></p> <ul style="list-style-type: none"><li>• Evolution</li><li>• Evidence for evolution</li><li>• Variation</li><li>• Resistant bacteria</li><li>• Theories of evolution (SS)</li><li>• Extinction</li><li>• Speciation (SS)</li><li>• Classification</li></ul>	<p><b>GCSE preparation</b></p> <ul style="list-style-type: none"><li>• Opportunities to complete Paper 2</li></ul> 
Links to prior learning	<ul style="list-style-type: none"><li>• Year 7 Cells</li><li>• Year 7 Reproduction</li><li>• Year 8 Light</li><li>• Year 9 Ecosystems</li></ul>	<ul style="list-style-type: none"><li>• Year 7 Reproduction</li><li>• Year 9 Genetics &amp; Evolution</li></ul>	
Assessment	<ul style="list-style-type: none"><li>• Field investigations formative assessment</li><li>• Ecology assessment</li><li>• Hormones &amp; homeostasis assessment</li><li>• Reaction time formative assessment</li><li>• Nervous system assessment</li><li>• Year 11 mocks</li></ul>	<ul style="list-style-type: none"><li>• Inheritance &amp; genetics assessment</li><li>• Evolution assessment</li></ul>	<ul style="list-style-type: none"><li>• Past Papers</li></ul>
Home learning	<ul style="list-style-type: none"><li>• Educake</li><li>• GCSEpod</li><li>• Past paper exam questions</li><li>• Reading comprehension</li><li>• Guided reading task</li></ul>	<ul style="list-style-type: none"><li>• Educake</li><li>• GCSEpod</li><li>• Past paper exam questions</li><li>• Reading comprehensions</li><li>• Guided reading task</li></ul>	<ul style="list-style-type: none"><li>• Educake</li><li>• GCSEpod</li><li>• Past paper exam questions</li></ul>
Cultural Capital and extra-curricular opportunities	<ul style="list-style-type: none"><li>• Targeted Intervention</li></ul>	<ul style="list-style-type: none"><li>• Targeted Intervention</li></ul>	<ul style="list-style-type: none"><li>• Targeted Intervention</li></ul>
Literacy	<ul style="list-style-type: none"><li>• Key words &amp; definitions</li><li>• Etymology of keywords</li><li>• Living on the ice reading comprehension</li><li>• Biodiversity – why should we care guided reading task</li><li>• The endocrine system guided reading task</li><li>• Phineas Gage reading comprehension</li></ul>	<ul style="list-style-type: none"><li>• Key words &amp; definitions</li><li>• Etymology of keywords</li><li>• Nettie Stevens &amp; sex determination reading comprehension</li><li>• Selective Breeding reading comprehension</li></ul>	<ul style="list-style-type: none"><li>• Use and mastery of command words in 6 mark Questions</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Calculating surface area:volume ratio</li><li>• Calculating % cover</li><li>• Calculating abundance and distribution</li><li>• Efficiency of biomass transfer</li></ul>	<ul style="list-style-type: none"><li>• Probability – use of Punnett squares and genetic cross diagram</li></ul>	<ul style="list-style-type: none"><li>• Reinforcing the layout of scientific equations to maximise mark gaining</li></ul>

Careers Information, Education, Advice and Guidance (CEIAG)	<ul style="list-style-type: none"><li>Ecologist</li><li>Entymologist</li><li>Farmer</li><li>Doctors such as urologist</li><li>Diabetic nurse</li></ul>	<ul style="list-style-type: none"><li>Geneticist</li></ul>	
Spirituality	<ul style="list-style-type: none"><li>Our role as global citizens to ensure food security</li><li>How intensive and organic farming methods vary in the ethics of how the land and livestock are treated</li><li>Self -awareness of the role of hormones</li><li>Empathy for those who have condition such as type 1 diabetes</li></ul>	<ul style="list-style-type: none"><li>Foster curiosity on nature vs nurture</li><li>Celebrate and acknowledge the work of Franklin, Watson and Crick and their contribution to genetics</li><li>Fostering an understanding of how our DNA and genes link to our characteristics</li><li>Empathy and compassion for those with genetic disorders</li><li>Make ethical judgements on the use of selective breeding and genetic engineering</li></ul>	
How can parents support the curriculum?	<ul style="list-style-type: none"><li>Encourage students to frequently revisit topics covered last year and those covered earlier this term</li><li>Help students establish a revision routine/timetable on the months before mock exams</li></ul>	<ul style="list-style-type: none"><li>Encourage students to frequently revisit topics covered last year and those covered earlier this term</li><li>Help students establish a revision routine/timetable on the months before the GCSEs commence</li></ul>	<ul style="list-style-type: none"><li>Encourage students into a healthy work/sleep routine in preparation for GCSEs</li></ul>