

Year 11 Overview 2023-24 – Biology

Date	Wk	Week	Units Studied & Learning Outcomes	Key Concepts & Assessment					
8 weeks (14/15 Lessons) (38 Days)									
Tues 5-Sep	A	1	<u>Overview of Unit/No. lessons</u> Ecology (15 lessons) <u>Lesson Sequence of Content:</u> 1) Ecosystems and biodiversity (1 lesson) 2) Biotic and Abiotic factors (1 lesson) 3) Animal adaptations (1 lesson) 4) Plant adaptations (1 lesson) 5) Extremophiles (1 lesson) 6) Competition for resources (1 lesson) 7) Food chains and webs (1 lesson) 8-9) Trophic levels and Pyramids of biomass (2 lessons) 10-11) Field investigation REQUIRED PRACTICAL (2 lessons) 12)Predator prey cycles (1 lesson) 13)The Carbon cycle (1 lesson) 14) Decay and decomposition (2 lessons) 15) Decay in milk REQUIRED PRACTICAL (2 lessons) 16) The water cycle (1 lesson) 17) Deforestation and peat bog destruction (1 lesson) 18) Air pollution and global warming (1 lesson) 19) Land and water pollution (1 lesson) 20) Quorn production and sustainable food production (1 lesson) 21) Food security and over-fishing (1 lesson) <u>Unit Learning Outcomes:</u> GW: Describe types of ecosystems and factors that affect them. BI: Explain how ecosystems are organised. EW: Explain how humans can impact ecosystems and Biodiversity.	•					
11-Sep	B	2							
18-Sep*	A	3							
25-Sep	B	4							
2-Oct	A	5							
9-Oct	B	6							
16-Oct	A	ST1							
23-Oct	B								
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Half-Term 7 weeks (10/11 lessons) (34 Days)									
6-Nov	A	ST1	<u>Overview of Unit/No. lessons</u> Inheritance 10 lessons) <u>Lesson Sequence of Content:</u> Revision / Feedback on ST1 Exam (1 lesson) 1) Know what Variation is (1 lesson) 2) Types of reproduction (1 lesson) 3) Advantages and disadvantages of different reproduction strategies (1 lesson) 4) DNA, Chromosomes and the human genome (1-2 lessons)						
13-Nov	B	10							
20-Nov	A	11							
27-Nov	B	12							
4-Dec	A	13							

11-Dec	B	14	5) Alleles and predicting patterns of inheritance (Punnett squares/genetic diagrams) (1-2 lessons) 6) The understanding of inheritance - the work of Mendel (1-2 lesson) 7) Inherited disorders (1 lesson) 8) Sex determination (1 lesson) 9) Meiosis (1 lesson) 10) Evolution (1 lesson)							
18-Dec										
	A	15	<table><tr><th>Prior</th><th>Current</th><th>Next</th></tr><tr><td>Year 7- Cells and Reproduction topics</td><td>Linking chromosomes with chemical they are made out of and how it functions Links with work about adaptations</td><td>Year 12 – Monomers and polymers DNA & RNA DNA & Protein synthesis Mutations during Meiosis Diversity & taxonomy</td></tr></table>	Prior	Current	Next	Year 7- Cells and Reproduction topics	Linking chromosomes with chemical they are made out of and how it functions Links with work about adaptations	Year 12 – Monomers and polymers DNA & RNA DNA & Protein synthesis Mutations during Meiosis Diversity & taxonomy	
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Christmas Holiday										
6 weeks (4/5 lessons) (30 Days)										
8-Jan	B	16	Overview of Unit/No. lessons Inheritance (5 lessons) Lesson Sequence of Content: 11) Theories of evolution (1 lesson) 12) Growing bacteria aseptically and testing antiseptics (1 lesson)- REQUIRED PRAC 13) Speciation (1 lesson) 14) Extinction (1 lesson) 15) Fossil formation (1 lesson) ST2 Exams							
15-Jan	A	17								
22-Jan	B	18								
29-Jan	A	ST2								
5-Feb	B	ST2								
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			EW: Explain how fossils support Darwin’s theory of Natural selection. Link conservation and biodiversity to prevention of extinction of species.																
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Half-Term5 weeks (6 lessons) (24 Days)																			
26-Feb	B	22	Overview of Unit/No. lessons Inheritance (6 lessons) Lesson Sequence of Content: ST2 Feedback and Revision 16) Selective breeding (1 lesson) 17) Genetic engineering (1 lesson) 18) Classification (1 lesson) 19) Cloning (1-2 lessons) 20 onwards). GCSE Exam preparation (3 lessons) <table><tr><th>Prior</th><th>Current</th><th>Next</th></tr><tr><td>Year 7 – Plant & animal reproduction</td><td>Genetic engineering Cloning</td><td>Year 12 – genetics & inheritance DNA & RNA</td></tr><tr><td>Year 7 – classification</td><td>Evolution Extinction</td><td>Diversity & Taxonomy</td></tr><tr><td>Year 7 Gametes & fertilisation</td><td></td><td>Adaptations</td></tr><tr><td>Year 7 DNA & inheritance</td><td></td><td></td></tr></table>	Prior	Current	Next	Year 7 – Plant & animal reproduction	Genetic engineering Cloning	Year 12 – genetics & inheritance DNA & RNA	Year 7 – classification	Evolution Extinction	Diversity & Taxonomy	Year 7 Gametes & fertilisation		Adaptations	Year 7 DNA & inheritance			•
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4-Mar	A	23																	
11-Mar	B	24																	
18-Mar	A	25																	
25-Mar*																			
	B	26	GW: Identify steps in selective breeding & genetic engineering. State reasons why scientists classify living things BI: Describe the process of selective breeding & genetic engineering. Identify the different ways of classifying organisms EW: Explain the process of genetic engineering and selective breeding. Explain how species can be classified and why classification systems have changed.																
Easter Holiday6 weeks (5 lessons) (29 Days)																			
15-Apr	A	27	Overview of Unit/No. lessons Revision (6 lessons) Lesson Sequence of Content: 1.GCSE Exam preparation 2. GCSE Exam preparation 3. GCSE Exam preparation 4. GCSE Exam preparation 5. GCSE Exam preparation																
22-Apr	B	28																	
29-Apr	A	29																	
6-May*	B	30																	
13-May	A	GCSE																	
20-May	B	GCSE																	

Half-Term		7 weeks (lessons) (35 Days)		
3-Jun	A	GCSE		
10-Jun	B	GCSE		
17-Jun	A	GCSE		
24-Jun	B	Contin gency		
(Total: 190 Days)				

* Bank Holidays