

Year 11 Long Term Scheme of Learning 2026-2027

Subject: Combined Science: Biology

National curriculum or specification coverage

4.6 Inheritance, variation and evolution

- 4.6.1 Reproduction
- 4.6.2 Variation and evolution
- 4.6.3 The development of understanding of genetics and evolution
- 4.6.4 Classification of living organisms

4.7 Ecology

- 4.7.1 Adaptations, interdependence and competition
- 4.7.2 Organisation of an ecosystem
- 4.7.3 Biodiversity and the effect of human interaction on ecosystems

Date	Exams/ Assessments	Learning Intentions	Core Task / Assessments
31/08/26		B6 Inheritance, Variation and Evolution • Describe sexual and asexual reproduction, including what happens during meiosis and fertilisation. • Describe the structure of DNA and its role in storing genetic information. • Explain the term genome and the importance of the human genome. • Describe how genes control characteristics, including examples. • Define key genetic terms: gamete, chromosome, gene, allele, genotype, phenotype, dominant, recessive, homozygous, and heterozygous. • Explain and use Punnett squares, genetic crosses, and family trees. • HIGHER TIER ONLY: Construct Punnett squares for monohybrid crosses. • Describe inherited disorders such as cystic fibrosis and polydactyly. • Evaluate social, economic, and ethical issues surrounding embryo screening. • Describe chromosome arrangements in human body cells, including the role of sex chromosomes. • Describe what genetic engineering is, including examples, and how it is carried out • Explain some benefits, risks and concerns related to genetic engineering • HIGHER TIER ONLY: Explain the process of genetic engineering, to include knowledge of enzymes and vectors	11HT1 strip analysis 11HT1 Multiple choice
07/09/26			
14/09/26			
21/09/26			
28/09/26			
05/10/26			
12/10/26	Y11		
19/10/26	Y11		
26/10/26		HALF TERM	

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02/11/26		- Describe what variation is and how it can be caused within a population - Describe mutations and explain their influence on phenotype and changes in a species - Explain the theory of evolution by natural selection - Describe how new species can be formed - Describe what selective breeding is - Explain the process of selective breeding, including examples of desired characteristics and risks associated with selective breeding - Describe evidence for evolution, including fossils, their formation, and limitations of fossil evidence. - Describe causes of extinction. - Explain how antibiotic-resistant bacteria (including MRSA) develop, spread, and can be controlled. - Describe the Linnaean classification system and how scientific advances led to new models, including the three-domain system. - Interpret evolutionary trees.	11HT1 strip analysis 11HT1 Multiple choice
09/11/26			
16/11/26			
23/11/26			
30/11/26			
07/12/26			
14/12/26			
		B7 Ecology - Define ecosystems and explain competition, interdependence, and stable communities. - Describe resources that organisms compete for and why. - Identify abiotic and biotic factors and explain how changes affect communities.	
21/12/26	CHRISTMAS HOLIDAY		
28/12/26			
04/01/27		- Describe structural, behavioural, and functional adaptations, including extremophiles. - Represent feeding relationships using food chains and explain predator-prey cycles. - Explain the use of quadrats and transects, including Required Practical 9 on sampling populations and distribution. - Describe the carbon and water cycles. - Describe biodiversity, its importance, and the effects of human activities on it. - Explain how population growth, resource use, pollution, land use, deforestation, and peat destruction affect ecosystems. - Describe changes in atmospheric gases, global warming, and their biological impacts. - Explain positive and negative human impacts on ecosystems and methods to protect biodiversity.	11HT2 strip analysis 11HT2 Multiple choice
11/01/27			
18/01/27			
25/01/27			
01/02/27	Y11		
08/02/27	Y11		
15/02/27	HALF TERM		
22/02/27		Revision & Exam Preparation - Revision & review by unit - Working Scientifically Skills - Maths Skills - Required Practicals review - Examination skills	11HT3 strip analysis 11HT3 Multiple choice
01/03/27			
08/03/27			
15/03/27			
22/03/27			
29/03/27	SPRING BREAK		

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05/04/27			
12/04/27		Revision & Exam Preparation • Revision & review by unit • Working Scientifically Skills • Maths Skills • Required Practical's review • Examination skills	11HT4 strip analysis 11HT4 Multiple choice
19/04/27			
26/04/27			
03/05/27			
10/05/27			
17/05/27			
24/05/27			
31/05/27	HALF TERM		
07/06/27			
14/06/27			
21/06/27			
28/06/27			
05/07/27			
12/07/27			