

## Long Term Curriculum Plan Biology

At Bournemouth School, the science curriculum aims to inspire a future generation of scientists, igniting curiosity and wonder in students and developing their understanding of the world around them. Practical activities are used regularly to support theoretical application of knowledge and to develop research and analytical skills. High quality teaching provides purposeful, stimulating lessons, providing a rich depth of knowledge, enabling students to become critical thinkers and contribute to shaping a better world.

The Biology curriculum aims to capture and extend our students' natural curiosity about scientific principles. We build skills that all scientists need such as investigative skills, an awareness of ethics and safety, an analytical mind set and an ability to apply knowledge to unfamiliar contexts. Our curriculum aims to challenge all students and facilitate further studies or potential careers in the subject,

*“About 3.8 billion years ago, on a planet called Earth, certain molecules combined to form particularly large and intricate structures called organisms. The story of organisms is called Biology.”*

*Yuval Noah Harari*

3 year roadmap	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 9	B1a Cell Structure	B1b Cell Division and Transport in Cells	B2a Organisation and Digestion	B2b Heart and health	B2c Plants B4a Photosynthesis	B4a Photosynthesis B4b Respiration
Year 10	B3 Infection and Response	B5a The Human Nervous System	B5b Hormone Co-ordination in Humans B5c Plant Hormones	B5c Plant Hormones B7a Ecosystems Revision	B7a Ecosystems	B7b Biodiversity B7c Food production
Year 11	B6a Inheritance Revision for Formal Assessments	B6b Variation Revision for Formal Assessments	B6c Evolution B6d Classification	Revision	Revision	

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## Assessments for KS4

Year 9 tests	Topic	Year 10 tests	Topic	Year 11 tests	Topic
w/c 16/10/23	B1a Cell Structure	w/c 30/10/23	B2c Plants B3 Infection and response	w/c 16/10/23	B1a Cell structure B1b Cell division and cell transport B6a Reproduction
w/c 04/12/23	B1a Cell structure B1b Cell division and cell transport	w/c 11/12/23	B1a Cell Structure B5a Human nervous system	w/c 20/11/23	Mock paper 1
w/c 19/02/23	B1a Cell structure B1b Cell division and cell transport B2a Organisation and digestion	w/c 04/03/23	B1b Cell division B5b Hormonal co-ordination in humans B5c Plant hormones	w/c 4/03/23	Mock paper 2
w/c 13/05/23	B2a Organisation and digestion B2b Heart and health B2c Plant tissues, organs + systems B4a Photosynthesis	w/c 29/04/23	B1a + b Cell biology B2a, b, c Organisation B3 Infection and response B5a, b, c Homeostasis + response		
w/c 08/07/23	B1a Cell structure B1b Cell division and cell transport B2a Organisation and digestion B2b Heart and health B2c Plant tissues, organs + systems B4a Photosynthesis B4b Respiration	w/c 08/07/23	B4a Photosynthesis B4b Respiration B7a Ecosystems B7b Biodiversity B7c Food production		

# Long Term Curriculum Plan Biology

Sixth form roadmap	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
YEAR 12	Introduction to Biology CH1 Carbs and lipids CH1 Proteins	CH1 Proteins and Enzymes CH2 Nucleic acids	CH2 ATP, water and ions CH8 DNA, Genes and Chromosomes	CH9 Genetic Diversity CH10 Biodiversity	Revision CH10 Biodiversity Formal Assessments	CH 19 Pops in Ecosystems
	Introduction to Biology CH3 Cell structure	CH3.7-8 Cell cycle and mitosis CH4 Transport across cell membranes	CH4 Transport across cell membranes CH5 Immunity	CH6 Exchange	CH6 Exchange CH7 Mass transport Formal Assessments	CH7 Mass transport CH7 Plant transport
YEAR 13	CH18 Pops and evolution CH17 Genetic crosses and chi squared	CH20 Gene expression	CH21 Gene technologies	CH21 Gene technologies CH 16 Homeostasis	CH 16 Homeostasis Revision	
	CH 12 Respiration CH 11 Photosynthesis	CH13 Energy and Ecosystems CH 14 Response to stimuli	CH15 Nervous Co ord	CH15 Muscles	Revision	

# Long Term Curriculum Plan Biology

Year 12	Teacher A			Teacher B		
Date	Content	TATS	Required prac.	Content	TATS	Required prac.
1	INTRO to BIOLOGY - LIBRARY			INTRO to BIOLOGY -RP		RP3
2	INTRO to BIOLOGY - LIBRARY			INTRO to BIOLOGY -RP		
3	CH1 Carbs and lipids	Starch		CH3 Cell structure	Microscopy	
4						
5						
6						
7	CH1 Proteins			CH3 TEST		
Half Term						
1	CH1 Proteins and Enzymes	Protein	RP1	CH3.7-8 Cell cycle and mitosis	Mitosis	RP2
2		Comp Inhib				
3						
4	CH1 TEST			CH4 Transport across cell membranes		RP4
5	CH2 Nucleic acids	DNA Replication				
6						
7						
Christmas						
1	CH2 ATP, water and ions	Water		CH4 TEST		
2						
3	CH1 and 2 TEST			CH5 Immunity	Phagocytosis	
4	CH8 DNA, Genes and Chromosomes	Transcription Translation				
5						
6						
Half Term						
1	CH9 Genetic Diversity			CH5 TEST		
2						
3						
4	CH8 and 9 TEST			CH6 Exchange	Lungs	
5	CH10 Biodiversity		RP6			
6						
Easter						
1	Revision			CH6 Exchange		
2						
3	YEAR 12 MOCKS					
4	CH10 Biodiversity			CH7 Mass transport		RP5
5						
6						
Half Term						
1	CH 19 Pops in Ecosystems	Succession	RP12	CH7 Mass transport		
2						
3						
4				End of year test		
5				CH7 Plant transport		
6						
7						
Summer						

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Year 13	Teacher A			Teacher B		
Date	Content	TATS	Required prac.	Content	TATS	Required prac.
1	CH17 Genetic crosses and chi squared			CH 12 Respiration		RP9
2						
3						
4	CH18 Population genetics	Selection Speciation		CH 11 Photosynthesis	Light dep Light indep	RP7
5						
6						
7						
Half Term						
1	CH17 & 18 TEST			CH13 Energy and Ecosystems		RP8
2						
3						
4	CH20 Gene expression			CH 14 Response to stimuli		
5						
6						
7						
Christmas						
1	Revision		-	Revision		
2	mock 1					
3	CH21 Gene technologies	PCR		CH15 Nervous Co ord	Synapse	
4						
5						
6						
Half Term						
1	Gene technologies			CH15 Muscles	Muscles	RP 10
2	CH 16 Homeostasis		RP11			
3						
4	mock 2 incl Essay					
5	Homeostasis			Revision		
6	Easter					
1	Homeostasis			Essay Assessment		
2				Revision		
3	Revision					
SUMMER						