

Temperance Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	HALF TERM	
Topic	B3 Infection and Response					B4 Bioenergetics				
Challenge Objective and Content (for all learners)	<p>B3 - Students should be able to explain how diseases caused by viruses, bacteria, protists and fungi are spread in animals and plants.</p> <ul style="list-style-type: none"> -Explain how diseases caused by pathogens are spread in animals and plants. -Describe diseases caused by viruses, bacteria, fungi and protists. -Describe the defence systems of the human body and explain the role of the immune system. -WS 1.4 Evaluate the global use of vaccination in the prevention of disease. -Describe the development of new medicines. -WS 1.6 Understand the role of peer review before publishing results of trials. 					<p>B4 - Describe and explain the processes of respiration and photosynthesis</p> <ul style="list-style-type: none"> -State the word and symbol equations for photosynthesis. -MS Measure and calculate the rate of photosynthesis as well as extract and interpret graphs. -RP Investigate the effect of light intensity on the rate of photosynthesis -Describe the uses of glucose from photosynthesis. -Explain the processes of aerobic and anaerobic respiration, stating the equations. -Explain how the body responds to exercise. 				
Inspire Opportunities	B3 - Justify how the immune system fights against disease successfully.					Explain the importance of sugars, amino acids, fatty acids and glycerol in the synthesis and breakdown of carbohydrates, proteins and lipids.				
Assessment Opportunities	End of Topic Test					End of Topic Test				

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	CHRISTMAS
Topic	B4 Bioenergetics		B5 – Homeostasis and Response				
Challenge Objective and Content (for all learners)	<p>B4 - Describe and explain the processes of respiration and photosynthesis</p> <ul style="list-style-type: none"> -State the word and symbol equations for photosynthesis. -MS Measure and calculate the rate of photosynthesis as well as extract and interpret graphs. -RP Investigate the effect of light intensity on the rate of photosynthesis -Describe the uses of glucose from photosynthesis. 		<p>B5 – Describe the structure and function of the nervous system and the hormonal system.</p> <ul style="list-style-type: none"> -Define ‘homeostasis’ -Explain the role of homeostasis in the control of blood glucose, body temperature and water levels. -Describe the structure and function of the nervous system -MS Extract and interpret data from graphs -RP 7 Investigate the effect of a factor on human reaction time. -Explain how the human endocrine system is controlled. -WS 1.3 Evaluate information around the relationship between obesity and diabetes. -Describe the role of hormones in human reproduction, including the menstrual cycle. 				

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	-Explain the processes of aerobic and anaerobic respiration, stating the equations. -Explain how the body responds to exercise.	-WS 1.3 Discuss why the issues regarding contraception cannot be answered by science alone	
Inspire Opportunities	Explain the importance of sugars, amino acids, fatty acids and glycerol in the synthesis and breakdown of carbohydrates, proteins and lipids.	Explain the role of the reflex arc in reflex actions.	
Assessment Opportunities	End of Topic Test	End of Topic Test	

Justice Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	HALF TERM
Topic	B5 – Homeostasis and Response						
Challenge Objective and Content (for all learners)	<p>B5 – Describe the structure and function of the nervous system and the hormonal system.</p> <ul style="list-style-type: none"> -Define 'homeostasis' -Explain the role of homeostasis in the control of blood glucose, body temperature and water levels. -Describe the structure and function of the nervous system -MS Extract and interpret data from graphs -RP 7 Investigate the effect of a factor on human reaction time. -Explain how the human endocrine system is controlled. -WS 1.3 Evaluate information around the relationship between obesity and diabetes. -Describe the role of hormones in human reproduction, including the menstrual cycle. -WS 1.3 Discuss why the issues regarding contraception cannot be answered by science alone 						
Inspire Opportunities	Explain the role of the reflex arc in reflex actions.						
Assessment Opportunities	End of Topic Test						

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	EASTER
Topic	B6 – Inheritance, Variation and Evolution						
Challenge Objective and Content (for all learners)	<p>Compare asexual and sexual reproduction, with relation to number of chromosomes and explain how favoured characteristics can be selectively bred.</p> <ul style="list-style-type: none"> -Understand the differences between mitosis and meiosis. -WS 1.2 Model behaviour of chromosomes during meiosis. -Describe the structure of DNA -Describe the importance of the human genome -Draw genetic diagrams to show the possible genotype and phenotype of offspring -MS 1c, 3a use direct proportion and simple ratios to express outcomes of genetic crosses. 						
Inspire Opportunities	Consider and debate the ethical considerations of screening for genetic disorders.						

Assessment Opportunities	End of Topic Test	
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Courage Term

	Week 1	Week 2	Week 3	Week 4	Week 5	HALF TERM
Topic	B6 – Inheritance, Variation and Evolution			Revision		
Challenge Objective and Content (for all learners)	<p>Compare asexual and sexual reproduction, with relation to number of chromosomes and explain how favoured characteristics can be selectively bred.</p> <p>-Explain how Polydactyly and Cystic Fibrosis are caused. -WS 1.2 Use the theory of evolution by natural selection in an explanation -WS 1.3, 1.4. Explain the benefits and risks of selective breeding given appropriate information and consider the related ethical issues. -Describe the evidence for evolution. -Use information given to show understanding of the Linnaean system.</p>					
Inspire Opportunities	Consider and debate the ethical considerations of screening for genetic disorders.					
Assessment Opportunities	End of Topic Test					

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	SUMMER
Topic	Y10 Mocks	B6 – Inheritance, Variation and Evolution					
Challenge Objective and Content (for all learners)		<p>Compare asexual and sexual reproduction, with relation to number of chromosomes and explain how favoured characteristics can be selectively bred.</p> <p>-Explain how Polydactyly and Cystic Fibrosis are caused. -WS 1.2 Use the theory of evolution by natural selection in an explanation -WS 1.3, 1.4. Explain the benefits and risks of selective breeding given appropriate information and consider the related ethical issues. -Describe the evidence for evolution. -Use information given to show understanding of the Linnaean system.</p>					
Inspire Opportunities		Consider and debate the ethical considerations of screening for genetic disorders.					

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Assessment Opportunities		End of Topic Test	
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