

1.

Biology Curriculum Map - Year 10

Half term	Topics to be covered	Overview of content	Assessment
Advent 1.1	B.1 Cell structure and transport B.2 Cell division	<ul style="list-style-type: none"> Differences between prokaryotic and eukaryotic cells Required Practical 1: Looking at cells How materials move between cells Required Practical 3: Investigating the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue How cells divide by mitosis Stem cells 	AP1: B1 and B2
Advent 1.2	B.3 Organisation and the Digestive system B4 Organising animals	<ul style="list-style-type: none"> The structure and function of the human digestive system The chemistry of food The role of enzymes in the digestive system Required Practical 4: Use standard food tests to identify food groups Required Practical 5: Investigate the effect of pH on the rate of reaction of amylase enzyme Blood and blood vessels The circulatory system and human heart Breathing and gas exchange Transport system in plants Transpiration 	Test: B3 and B4
Lent 2.1	B.5 Communicable diseases	<ul style="list-style-type: none"> Diseases caused by bacteria, viruses, fungi and protists Human defence responses 	AP2: B1 – B5

	B. 6 Preventing and treating disease	<ul style="list-style-type: none"> • Plant defence responses • Preventing and treating infections • Vaccinations • Monoclonal antibodies • Required Practical 2: Investigating the effect of antiseptics or antibiotics on bacterial growth 	
Lent 2.2	B. 7 Non-communicable diseases	<ul style="list-style-type: none"> • Cancer • The effects of smoking, diet, alcohol and carcinogens on health 	Test B6 – B7
Pentecost 3.1	<p>B. 8 Photosynthesis and organising plants B4.6- B4.8</p> <p>B9 Respiration</p>	<ul style="list-style-type: none"> • Factors affecting the rate of photosynthesis • Making the most of photosynthesis • Required Practical 6: Investigate the effect of light intensity on the rate of photosynthesis • Aerobic respiration • Anaerobic respiration • Metabolism and the liver 	Test B8 – B9
Pentecost 3.2	<p>B16 Adaptations, interdependence and competition</p> <p>B.17 Organising an ecosystem</p> <p>B.18 Biodiversity and Ecosystems</p>	<ul style="list-style-type: none"> • Relationships between organisms in an ecosystem • Adaptations in plants and animals • Materials, water and carbon cycle • Human impact upon the environment • Food production and food security • Required Practical 9: Measure the population size of a common species in a habitat • Required Practical 10: Investigate the effect of temperature on the rate of decay of fresh milk 	<p>End of year 10 exam B1-B9</p> <p>1 hour 45 minutes</p>