

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	B. 8 Photosynthesis and organising plants B4.6- B4.8 B9 Respiration	<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	B16 Adaptations, interdependence and competition B.17 Organising an ecosystem B.18 Biodiversity and Ecosystems	<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 	End of year 10 exam B1 -B9 1 hour 45 minutes