

Science GCSE Biology Curriculum – Carre’s Grammar School

Biology						
	Autumn 1	Autumn 2	Spring 3	Spring 4	Summer 5	Summer 6
Year 9	TOPIC 1 - Cells and organisation <ul style="list-style-type: none"> • Microscopes • RP1 - Using a light microscope • Plant and animal cells (structure and function) • Specialised cells in plants and animals • Cell division & stem cells 		TOPIC 2 - Plant biology <ul style="list-style-type: none"> • Tissues and organs in plants • Plant transport systems • Evaporation and transpiration • Photosynthesis • RP6: The effect of light intensity on the rate of photosynthesis 		TOPIC 3 - Animal biology <ul style="list-style-type: none"> • Tissues and organs • Digestive system • Chemistry of food • RP4: Food tests • Enzymes and digestion • RP5: The effect of pH on enzyme action • Blood & blood vessels • The heart & circulation • The lungs and gaseous exchange • Respiration (aerobic and anaerobic) • Metabolism and the liver • Non-communicable disease 	
	Transport in and between cells <ul style="list-style-type: none"> • Diffusion, osmosis and active transport • RP3: The effect of concentration on the mass of plant tissue (osmosis) • Exchanging materials 					
	Assessment <ul style="list-style-type: none"> • Multiple choice question quizzes (MCQs) in the middle of each term. • Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at the end of Term 1. 		Assessment <ul style="list-style-type: none"> • MCQs in the middle of each term. • Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at the end of Term 3. 		Assessment <ul style="list-style-type: none"> • MCQs in the middle of each term. • Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at end of April/beginning of May. 	

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Year 10	TOPIC 4 - Infection and response <ul style="list-style-type: none"> Communicable diseases Growing bacteria RP2: The effect of antiseptics or antibiotics on bacterial growth Preventing and treating disease Non-communicable disease 		TOPIC 5 - Homeostasis and response <ul style="list-style-type: none"> The nervous system RP7: The effect of a factor on human reaction time The brain and the eye Hormonal control – blood glucose levels Reproduction and the menstrual cycle Homeostasis – controlling body temperature and removing waste. Plant hormones RP8: The effect of gravity or light on the growth of newly germinated seedlings 		TOPIC 6 - Inheritance, variation and evolution <ul style="list-style-type: none"> Types of reproduction DNA and inheritance Variation Evolution Fossils and extinction Classification 	
	Assessment <ul style="list-style-type: none"> MCQs in the middle of each term. Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at the end of Term 1. 		Assessment <ul style="list-style-type: none"> MCQs in the middle of each term. Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at the end of Term 3. 		Assessment <ul style="list-style-type: none"> MCQs in the middle of each term. Formal written assessment using past exam questions covering all content covered since the beginning of Year 9 at end of April/beginning of May. 	

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Year 11	TOPIC 2 - Plant biology <ul style="list-style-type: none"> • Photosynthesis • RP6: The effect of light intensity on the rate of photosynthesis TOPIC 3 – Animal biology <ul style="list-style-type: none"> • Respiration (aerobic and anaerobic) • Metabolism and the liver TOPIC 5 - Homeostasis and response <ul style="list-style-type: none"> • The nervous system • RP7: The effect of a factor on human reaction time • The brain and the eye • Hormonal control – blood glucose levels • Reproduction and the menstrual cycle 		TOPIC 5 - Homeostasis and response <ul style="list-style-type: none"> • Homeostasis – controlling body temperature and removing waste. • Plant hormones • RP8: The effect of gravity or light on the growth of newly germinated seedlings TOPIC 6 - Inheritance, variation and evolution <ul style="list-style-type: none"> • Types of reproduction • DNA and inheritance • Variation • Evolution • Fossils and extinction • Classification 		Required practical focus & revision <ul style="list-style-type: none"> • RP1: Using a light microscope • RP2: The effect of antiseptics or antibiotics on bacterial growth • RP3: The effect of concentration on the mass of plant tissue (osmosis) • RP4: Food tests • RP5: The effect of pH on enzyme action • RP6: The effect of light intensity on the rate of photosynthesis • RP7: The effect of a factor on human reaction time • RP8: The effect of gravity or light on the growth of newly germinated seedlings • RP9: Measure the population size of a common species in a habitat • RP10: The effect of temperature on the rate of decay. 	
	Assessment <ul style="list-style-type: none"> • MCQs in the middle of each term. • Formal written assessment covering all content covered since the beginning of Year 9 at the end of Term 1. 		Assessment <ul style="list-style-type: none"> • Multiple choice question quizzes (MCQs) in the middle of each term. • Mock exam paper mid-January. 		Assessment <ul style="list-style-type: none"> • Mock exam end of April. 	

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