Laurence Jackson School

A Specialist Sports College

CURRICULUM OVERVIEW

Please contact your child's subject teacher or Head of Department for answers to subject related questions

SUBJECT	TRIPLE BIOLOGY	YEAR GROUP	KS4

Y10	Lesson Content	Subject Assessment Methods	Opportunities for Home Learning
HALF TERM 1	• The nervous system- nerves and reflex actions • The endocrine system- hormones involved in homeostasis • The menstrual cycle • The senses	• Tracking tests based on exam questions • Long answer homework questions • Practical assessments • Class presentations • Mock Exam • Final Exam sat in June	• Use of revision guide/exercise books to consolidate learning is expected after every lesson. • Small research projects may be set. • Revision in preparation for exams plays a large role in homework from half term 4 onwards. • Small experiments/ investigations may be set. • Homework varies depending on topic. May be completion/ extension of class work, exam style questions, extended writing, independent research, preparation for next lesson **Extension activities** • These are specific to the topic being taught and are available as part of nearly every lesson. Students may be targeted to complete specific extension activities, but all students are

			encouraged to ask their teacher for any additional activities available. BBC Bitesize KS4 Biology
HALF TERM 2	• Healthy living- diet and exercise • Health and disease- vaccination, medicine,handling microbes • History of microbe research		
HALF TERM 3	• Adaptation for survival • How organisms survive in their environment • Environmental change • Competition		
HALF TERM 4	• Energy in Biomass • Pyramids of number and biomass • Decay processes • The carbon cycle • Recycling organic waste		
HALF TERM 5	• Inheritance • Genetics and cloning • Genetic disease • Chromosomes genes and DNA		

HALF TERM 6	• The nervous system- nerves and reflex actions • The endocrine system- hormones involved in homeostasis • The menstrual cycle • The senses	• Tracking tests based on exam questions • Long answer homework questions • Practical assessments • Class presentations • Mock Exam • Final Exam sat in June	• Use of revision guide/exercise books to consolidate learning is expected after every lesson. • Small research projects may be set. • Revision in preparation for exams plays a large role in homework from half term 4 onwards. • Small experiments/ investigations may be set. • Homework varies depending on topic. May be completion/ extension of class work, exam style questions, extended writing, independent research, preparation for next lesson **Extension activities** • These are specific to the topic being taught and are available as part of nearly every lesson. Students may be targeted to complete specific extension activities, but all students are encouraged to ask their teacher for any additional activities available. BBC Bitesize KS4 Biology
Y11	Lesson Content	Subject Assessment Methods	Opportunities for Home Learning

Note- Triple award students sit an extra exam in January that examines the work completed in Term 1.

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Due to demands for equipment/ resources topics are taught on a rota basis, so classes may cover topics at times other than those stated above within the year.			
HALF TERM 1	• Cells- structure/ function/ specialisation • Diffusion and Osmosis- movement of molecules • Photosynthesis- reactants, products, use of products by plants/ humans • Decay and the carbon cycle- best conditions for decay, importance of carbon recycling • Energy in the food chain- preservation of energy, intensive farming, pyramids of number/ biomass	• Progress tracked using topic tests produced from past paper exam questions. This provides very accurate information on student progress in the form of a GCSE type grade. This information used to inform intervention planning for individual students. • Mock exam carried out in line with other subjects. • ISAs (coursework aspect) give us an approximate grade for current performance.	• Use of revision guide/exercise books to consolidate learning is expected after every lesson. • Small research projects may be set. • Revision in preparation for exams plays a large role in homework from half term 4 onwards. • Small experiments/ investigations may be set. • Homework varies depending on topic. May be completion/ extension of class work, exam style questions, extended writing, independent research, preparation for next lesson **<u>Extension activities</u>** • These are specific to the topic being taught and are available as part of nearly every lesson. Students may be targeted to complete specific extension
HALF TERM 2	• Enzymes, structure, function and use in body and industry. Digestion- reactants and products • Genetics- cell division, inheritance of characteristics/ disease application of science in medicine		

HALF TERM 3	• Movement of molecules- active transport+ transpiration • The human heart structure function and circulatory system		activities, but all students are encouraged to ask their teacher for any additional activities available. • BBC Bitesize KS4 Biology supports our scheme of work with games, activities and quizzes and can be very helpful as another form of revision. **Future study/career pathways at Post 16/Higher Education** http://www.sciencebuddies.org/science-fair-projects/science_careers.shtml Science staff will be pleased to discuss any questions you may have on careers in science
HALF TERM 4	• Microbes, production and antibiotics • Biogas and fermenters- production and uses • Respiration		
HALF TERM 5	• Theory of biogenesis • Exam preparation		