Marshalls Park Academy - Curriculum Overview

Subject: Science | Year Group: 9 | Curriculum/Subject Leader: ZST | Academic Year:23/24

During Year 9, students will start their GCSE course by studying units required for Paper 1 and 2 (AQA Triple Science Biology, Chemistry and Physics). The units will contain both theoretical and required practical-based lessons. Students complete all 6 Science papers in year 11 with exams accounting for 100% of their grades. Within these exams there will be questions that will draw on the knowledge and understanding students have gained from carrying out the required practical activities. These questions will count for at least 15 % of the overall marks for the qualification.
AQA Triple Science: Paper 1 Biology and Paper 2 Biology, Paper 1 Chemistry, Paper 2 Chemistry, Paper 1 Physics and Paper 2 Physics. All exams are 1 hour and 45 minutes and students will gain three separate Science GCSEs: Biology, Chemistry and Physics.

TERM 1	TERM 2	TERM 3
KNOWLEDGE/SKILLS Knowledge/topics: Biology: B4 - Bioenergetics (respiration and photosynthesis), Start B1 – Cell Biology Chemistry: C1 - Atomic Structure (the periodic table, mixtures and separation) Physics : P3 - Particle model of matter (density, states and motion in gases), start P1 - Energy	KNOWLEDGE/SKILLS Knowledge: Biology: B1 - Cell Biology (cells, microscopes, microorganisms* and exchanging substances) Chemistry: C2 – Structure, Bonding and Properties of Matter (ions and ionic compounds, covalent, ionic and metallic bonding, states of matter and nanoparticles) and C3 Quantitative Chemistry part 1 (relative formula mass and yield) P1 – Energy (energy stores, specific heat capacity, conservation of energy and using energy)	KNOWLEDGE/SKILLS Knowledge: Biology: B2 - Organisation (enzymes, respiratory and circulatory systems, diseases and plant organisation and transport) Chemistry: C8 – Chemical Analysis (chromatography, purity of substances, testing for ions/gases) and C9 – The atmosphere (development of the atmosphere, greenhouse effect and global warming) Physics: P2 – Electricity (circuits, conservation of energy and power, power and the national grid and static electricity)
Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.		
KEY ASSESSMENTS Biology: B4 – Bioenergetics Chemistry: C1 – Atomic Structure Physics: P3 – Particle model of matter	KEY ASSESSMENTS Biology: B1 – Cell Biology Chemistry: C2 – Structure, Bonding and Properties of Matter Physics: P1 – Energy	KEY ASSESSMENTS Biology: B2 – Organisation Chemistry: C8 – Chemical Analysis and C9 – The atmosphere Physics: P2 – Electricity Year 9 end of year test
Extended reading suggestions and links to external resources: https://www.bbc.com/bitesize/examspecs/zsc9rdm (Physics Triple Science), https://www.bbc.com/bitesize/examspecs/z8xtmnb (Chemistry Triple Science), https://www.bbc.com/bitesize/examspecs/zpgcbk7 (Biology Triple Science) CGP GCSE AQA Biology/Physics/Chemistry Revision Guide (individual) CGP GCSE AQA Biology/Physics/Chemistry Exam practice workbook (individual) CGP GCSE Biology/Physics/Chemistry Revision question cards www.focuselearning.co.uk – required practical support (username will be set on SMHW or ask class teacher) www.youtube.com – users: primrose kitten, fuseschool, freesciencelessons, Malmesbury Education (required practical support) www.gcsepod.com (create log in on website or ask form tutor to support), www.samlearning.com (ask form tutor for log in) Outside reading to support learning: Actual Size by Steve Jenkins and Tiny Creatures: The World of Microbes by Nicola Davies		