Securing Life Chances for ALL						
STJAMES ACADEMY	Curriculum Overview: Triple Science				Exam Board: AQA Trilogy	
AČADEMY Dudley	AUTUMN I	AUTUMN 2	SPRING I	SPRING 2	SUMMER I	SUMMER 2
10 B	Infection & Response • Communicable diseases • Monoclonal antibodies (Biology only) • Plant disease (Biology only)	Bioenergetics Photosynthesis Rate of photosynthesis Respiration Response to exercise Metabolism 	Homeostasis & Response part I • Homeostasis • The human nervous system • The brain (Biology only) • The eye (Biology only)	Homeostasis & Response Part 2 • Body temperature control (Biology only) • Hormonal co-ordination in humans • Plant hormones (Biology only)	Ecology Part I • Adaptations, interdependence and competition • Biotic and abiotic factors	Ecology Part 2 • Organisation of an ecosystem • Biodiversity • Trophic levels (Biology only)
10 C	Quantitative Chemistry Chemical measurements Conservation of mass Moles Yield & Atom economy (chemistry only) 	Chemical Changes Reactivity of metals Reactions of acids Titrations (Chemistry only) Electrolysis and half equations 	Energy Changes • Exothermic and endothermic reactions • Reaction profile diagrams • Chemical cells & fuel cells (Chemistry only)	Rate of Chemical Change • Rate of reaction • Factors affecting rate of reaction • Collision theory	Rate of Chemical Change Catalysts Reversible reactions Equilibrium Effect of temperature & pressure on equilibrium 	Organic Chemistry • Carbon compounds as fuels and feedstock • Reactions of alkenes and alcohols (chemistry only) • Polymers & polymerisation (chemistry only)
10 P	Electricity • Current, potential difference & resistance • Series & parallel circuits • Domestic uses and safety • Static electricity (Physics only)	Atomic Structure • Atoms and isotopes • Atoms and nuclear radiation • Hazards & uses of radioactive emissions (physics only) • Nuclear fission & fusion	Forces Part I • Forces and their interactions • Resultant forces • Work done & energy transfer • Forces & elasticity	Forces Part 2 • Moments, levers & gears (physics only) • Pressure & pressure differences (physics only) • Forces and motion • Momentum	Waves Part I • Waves in air, fluids and solids • Sound waves (Physics only) • Waves for detection and exploration (Physics only)	Waves Part 2 • Electromagnetic waves • Lenses (Physics only) • Black body radiation (Physics only)
II B	Inheritance & Evolution part I • Sexual & Asexual reproduction • DNA structure (Biology only) • Genetic inheritance	Inheritance & Evolution part 2 • Inherited disorders • Sex determination • Variation • Evolution • Selective breeding	Inheritance & Evolution part 3 • Genetic engineering • Cloning (Biology only) • Theory of evolution (Biology only) • Classification of organisms	Revision • Preparation for GCSE exams	Exams • GCSE exams	Exams oGCSE exams
II C	Chemical Analysis Purity, formulations & chromatography Identification of common gases Identification of ions (Chem only) 	 Chemistry of the Atmosphere Composition of Earth's atmosphere. Greenhouse gasses. Carbon dioxide and methane Atmospheric pollutants & sources 	Using Resources • Using Earth's resources • Sustainable development • Potable water • Wastewater treatment • Life cycle assessments • Using materials (Chem only) • The Haber process (Chem only)	Revision • Preparation for GCSE exams	Exams • GCSE exams	Exams ○GCSE exams
II P	Magnetism & Electromagnetism • Permanent & induced magnetism • Magnetic forces & fields • The motor effect • Loudspeakers (Physics only) • Induced potential, transformers and the National Grid	Space Physics I • The solar system, stability of orbital motions and satellites • National and artificial satellites	Space Physics 2 • Red Shift • Life cycle of a star	Revision • Preparation for GCSE exams	Exams oGCSE exams	Exams oGCSE exams
B = Biology C = Chemistry P = Physics						