



ST CATHERINE'S COLLEGE

A CHURCH OF ENGLAND ACADEMY

Learning overview for: Combined Science and Triple Science (in bold type)			Year group: 10	
Term	Key topics / scheme of work	What most pupils will learn (Prior assessment may alter starting point & content)	Key skills used	How will this learning be assessed?
Terms 1 and 2	Cells Organisation Infection Bonding Energy Changes Chemical Analysis Energy Electricity	Cell growth and transport, Heat, Lungs and Blood Vessels, Plants, Medicines. Microbial Growth History of the Periodic Table, Review of Structure and Bonding, Energy Profiles and Bond Energy, Formulations, Gas Tests and Chemical analysis. Power and Energy Stores, Resistance, Circuit Components and Circuits, Statics and Electric Fields.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Terms 3 and 4	Bioenergetics Inheritance Chemical Changes Quantitative Chemistry	Photosynthesis, Respiration, Exercise and Metabolism. Genes, Inheritance and Evolution. Cloning and Protein Synthesis. Oxidation, Reduction and Neutralisation. Electrolysis. Reacting Masses and Limiting Reactants. Yield and Atom Economy Internal Energy, Particle structure of matter and Boyle's Law	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks





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	Particle Model			and Core Assessments
Term 5	Atomic Structure Space Revision	Nuclear decay, background radiation, half-life, hazards of radioactive materials. Nuclear Fusion and Fission. Revision for Paper 1 mocks in Biology, Chemistry and Physics	Models, Investigative Skills, Using Equations. Graph Drawing Revision Techniques	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 6	Ecology Earth's Resources Organic Chemistry Electromagnetism	Biodiversity, Food Webs and the Carbon Cycle. Farming, Fishing and Biotechnology. Corrosion, Materials and the Haber Process Hydrocarbons and Fractional Distillation Magnets and motors	Revision Techniques	Year 10 mock – Paper 1 Educake Homework tasks, Extended Writing Tasks and Core Assessments





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Learning overview for: Combined Science and Triple Science (in bold type)			Year group: 11	
Term	Key topics / scheme of work	What most pupils will learn (Prior assessment may alter starting point & content)	Key skills used	How will this learning be assessed?
Terms 1 and 2	Homeostasis Inheritance Organic Chemistry Space Waves Forces	The Eye, Kidneys and Plant Hormones Genetic disorders, fossils and antibiotic resistant bacteria. Classification, Selective Breeding and Cloning . Alkanes, Alkenes, Alcohols, Carboxylic Acids, Polymers The Earth in Space and the Universe Light, Lenses, Levers and Gears, Newton's Laws and Momentum	Models, Investigative Skills, Using Equations. Graph Drawing Revision Techniques	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 2	Preparation for the Paper 2 mock exams	B – Revision of topics: Homeostasis, Inheritance and Ecology. C – Revision of topics: Rates of reaction, Organic Chemistry, Chemical Analysis, Chemistry of the Atmosphere, Using Resources. P – Revision of topics: Forces, Waves, Magnets.	Revision techniques	Year 11 Mocks – Paper 2
Term 3	Preparation for the Paper 1 mocks exams.	B – Revision of topics: Cell Biology, Organisation, Infection and Response and Bioenergetics.	Revision techniques	Year 11 Mocks – Paper 1





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		<p>C – Revision of topics: Atomic Structure and the Periodic Table, Bonding, Structure and Properties of Matter, Quantitative Chemistry, Chemical Changes and Energy Changes.</p> <p>P – Revision of topics: Energy, Electricity, Particle Model of Matter and Atomic Structure.</p>		
Term 4	<p>B, C, P – Review of Paper 1 and 2 mock exams and further revision</p>	<p>B – Revision of topics: Cell Biology, Organisation, Infection and Response and Bioenergetics, Homeostasis, Inheritance and Ecology.</p> <p>C – Revision of topics: Atomic Structure and the Periodic Table, Bonding, Structure and Properties of Matter, Quantitative Chemistry, Chemical Changes and Energy Changes, Rates of reaction, Organic Chemistry, Chemical Analysis, Chemistry of the Atmosphere, Using Resources.</p> <p>P – Revision of topics: Energy, Electricity, Particle Model of Matter and Atomic Structure, Forces, Waves, Magnets.</p>	<p>Models, Investigative Skills, Using Equations. Graph Drawing</p> <p>Revision Techniques</p>	<p>Educake Homework tasks, Extended Writing Tasks and Core Assessments</p>
Term 5	<p>B, C, P - Preparation for Paper 1 and 2 exams</p>	<p>B – Revision of topics: Cell Biology, Organisation, Infection and Response and Bioenergetics, Homeostasis, Inheritance and Ecology.</p> <p>C – Revision of topics: Atomic Structure and the Periodic Table, Bonding, Structure and Properties of Matter, Quantitative Chemistry, Chemical Changes and Energy Changes, Rates of reaction, Organic Chemistry, Chemical Analysis, Chemistry of the Atmosphere, Using Resources.</p> <p>P – Revision of topics: Energy, Electricity, Particle Model of Matter and Atomic Structure, Forces, Waves, Magnets.</p>	<p>Models, Investigative Skills, Using Equations. Graph Drawing</p> <p>Revision Techniques</p>	<p>Educake Homework tasks and Extended Writing Tasks.</p>
Term 6				

