



**ST CATHERINE'S**  
**COLLEGE**  
A CHURCH OF ENGLAND ACADEMY

Learning overview for: Science			Year group: 8	
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?
Term 1	B – Cells and respiration C – Chemical Reactions P - Energy	B - The respiratory system. C – Word and symbol equations. Combustion, thermal decomposition, endothermic and exothermic reactions and the use of catalysts. P – Generating electricity and calculating energy.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 2	B – Respiration continued C – Rates of reaction P - Electricity	B – Types of respiration. Exercise, diet and the effects of smoking. C – Rates of chemical reaction. P – Types of circuit. Resistance in circuits.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 3	B – Plants. Lifestyle and health C – Properties of materials	B – Plants cells and their functions. Health and drug use. C – Properties of materials, metals, non-metals, compounds, alloys. P – Speed and distance-time graphs. Forces, moments, levers. Air and water resistance.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks





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	P - Forces			and Core Assessments
Term 4	B – Reproduction. The Digestive System. C – The Periodic Table P – Magnets and Space	B – Puberty, gender, sexual orientation, pregnancy and hormones. The digestive system and the effects of malnutrition and obesity. C – The structure of the periodic table. Groups 1, 2, 7 and 0. Relative formula mass and the reactivity series. P – Magnets and electromagnets. The moon, orbits, solar system, Universe and the Big Bang Theory	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 5	B – Evolution and Reproduction C – Reactions with metals and bonding. P – Waves, light and Sound	B – Variation, fossils and evidence for evolution. Asexual reproduction and cloning. C – Reactions of metals with acids, displacement reactions. Types of chemical bond. P – Waves, light, sound, hearing.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments
Term 6	B – Ecology C – Chemical Reactions P – Particle model	B – Food chains and webs. Farming and the environment. Adaptations and extinctions. Biodiversity and sustainability. C – Electrolysis, flame and gas tests. The limestone cycle. Investigating corrosion. P – Density, expansion and contraction. Conductors, insulators and static electricity.	Models, Investigative Skills, Using Equations. Graph Drawing	Educake Homework tasks, Extended Writing Tasks and Core Assessments

