



Thomas Lord Audley School

Science Department

Curriculum Overview

	Year 7	Year 8	Year 9	Year 10	Year 11
Autumn 1	Introduction to science Human organs and life processes Acids and alkalis. Introduction to forces Heat transfer	Climate Heating and Cooling Magnets Elements Energy Transfers Respiration	Chemical energy Current Earth resources Periodic table Plant reproduction	Cells, Cellular transport, Enzymes as catalysts, Atomic structure, states of matter, separating mixtures Speed and acceleration	Photosynthesis Hormones Respiration Circulation Chemical calculations Electrolysis
Autumn 2	Plant reproduction Human reproduction Acids and alkalis Particle theory and solutions	Types of reaction Breathing Chemical energy Digestion, Current, Contact forces	Combined Science Skills and Key knowledge unit: Forces and Energy, Earth's atmosphere, Cells and sensitivity	Newtons Laws Momentum Mitosis and Growth Stem cells Ionic bonding Covalent bonding Metallic bonding	Extracting and using metals Haber process Groups in the periodic table Rates of reaction Work and Power Forces doing work
Spring 1	Energy resources Climate change Interdependence Variation	Inheritance Earth resources Periodic table Electromagnets Wave properties	Bespoke selection of topics advised by assessment, using BEST (best evidence science teaching) resources	Energy transfers Genetic inheritance - monohybrid crosses Types of substance	Electric circuits Magnetism Electromagnetic induction Ecology
Spring 2	Separating mixtures, Recap particle theory Recap acids and alkalis Reactions of metals Graph skills Analysing data	Metals and non metals Pressure Work	Cells and Microscopy, Enzymes, cellular transport, States of matter, separation techniques, Motion and motion graphs	Acids and alkalis Waves Evolution and classification	Exothermic and endothermic reactions Kinetic theory Specific Heat capacity Specific latent heat

<p>Summer 1</p>	<p>Magnetism Electric circuits Introduction to pressure Application of particle theory and separating techniques. Recap life processes Recap heat transfer</p>	<p>Photosynthesis Plant reproduction Evolution Assessment</p>	<p>Cell division, growth, nervous system, atomic structure and periodic table, Newton's laws, momentum, stopping distances and car safety</p>	<p>The electromagnetic spectrum Chemical calculations Health and disease Radioactivity</p>	<p>Fuels Atmosphere Hooke's law Revision</p>
<p>Summer 2</p>	<p>Extended investigations (applying knowledge and understanding from prior learning)</p>	<p>Bespoke interventions Extended investigation</p>	<p>Cell division, growth, nervous system, atomic structure and periodic table, Newton's laws, momentum, stopping distances and car safety</p>	<p>Photosynthesis Electrolysis Extracting metals Work and power Forces doing work</p>	