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	Solar system Elements, compounds and mixtures, Rock cycle, Gas tests	Chemical reactions Earth resources/metals Periodic table Forces, energy transfers	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	Light Sound Forces Rates of reaction	Speed, Distance, time, momentum Heat transfer Enzymes Particle theory and chemical and physical reactions	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	Cells Microscopy Breathing Circulation Digestion Respiration Infectious disease Vaccination	Respiration, nutrition, nervous system and effect of drugs, Circulation, Work done Forces Pressure, Moments	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	Forces Electric current Reactions of carbonates (environmental chemistry) Electric circuits	Colour theory Applied chemistry (paints, pigments, investigative skills) Assessment.	Acids and alkalis Waves Evolution and classification	Exothermic and endothermic reactions Kinetic theory Specific Heat capacity Specific latent heat
Summer 1	Magnetism Electric circuits Introduction to pressure Application of particle theory and separating techniques. Recap life processes Recap heat transfer	Plant reproduction Photosynthesis Water cycle Nitrogen cycle Carbon cycle	Food chains, Pollution and acid rain Electricity transmission. Selection from: Cell division, growth, nervous system , atomic structure and periodic table, Newton's laws,	The electromagnetic spectrum Chemical calculations Health and disease Radioactivity	Fuels Atmosphere Hooke's law Revision
Summer 2	Extended investigations (applying knowledge and understanding from prior learning)	Extended project (Antarctic survey) linking all topics in context : Heat transfer Food webs Conservation	Remaining topics from:Cell division, growth, nervous system , atomic structure and periodic table, Newton's laws, momentum, stopping distances and car safety	Photosynthesis Electrolysis Extracting metals Work and power Forces doing work	