Curriculum Map- Science

Below is a curriculum map, showing what is taught at each stage of the year.

	Term 1.1 Term 1.2	Term 2.1 Term 2.2	Term 3.1 Term 3.2
Year 7 *new 2023*	**Introduction to Science** **Energy** - Energy stores and transfers **Particle Model** - States of matter and changes of state **Interdependence** - Feeding relationships, classification and adaptation **Forces 1** - Contact and non-contact forces. Newtons 1st & 3rd Law	**Elements and the Periodic Table** - Elements and the properties and arrangement in the periodic table. **Organisation 1** - Tissues, organs and systems **Electricity & Magnetism** - Charge, current and circuit diagrams **Compounds** - How elements combine to form new compounds in a chemical reaction.	**The Cell** - Cells, organelles and specialisation **Mixtures** - Separation techniques **Reproduction** - The reproductive system **Space -** The solar system, days, seasons and eclipses
Year 8 *old 2022*	**Bioenergetics**- Respiration in cells **Current -** Current, series and parallel circuits **Atomic structure -** The structure of the atom and introduction to bonding and ions **Transport** - How the reactants & products of respiration are transported	**Particle Theory** - Density, Pressure & Energy transfers **Metals & Ions** - Ionic bonding and chemical equations **Waves -** Properties of waves. Light, colour & sound	**Health & Disease -** Communicable & non-communicable disease **Speed -**Resultant forces, motion and acceleration **Biodiversity** - Biodiversity and its importance in ecosystems
Year 9	**Voltage -** Energy transfers in a circuit **Reactivity Series** - Reactivity of metals and its applications **Bonding- Structure and Properties -** How properties of substances relates to their bonding. **Applied Forces -** Newton's 2nd Law, Pressure, Moments and Hooke's Law **Genetics** - Inheritance, selective breeding and natural selection	**Photosynthesis** - Plants and photosynthesis **Quantitative Chemistry -** Conservation of mass and calculating masses in reactions **Generating electricity-** Electricity generation & energy resources **Cosmology -** The life cycle of stars, The Big Bang and Red-Shift **Begin preparing for KS4**	**Cell Biology**- Microscopy, cell differentiation, division and transport **Atomic structure & the periodic table-**The development of the periodic table and evidence for the nuclear model of the atom. Properties of group 1,7 & 0 elements.

Year 10	**Energy -** Calculating energy stores & transfers. Energy resources **Organisation** - Digestive system & enzymes, disease and cancer	**Bonding, structure & properties of matter -** Chemical bonding and properties of different materials **Electricity** - Charge, current, resistance, potential difference and domestic electricity supply	**Infection & response** - Pathogens, immunity and drug development **Quantitative chemistry -** Chemical measurements, moles and concentrations	**Energy changes -** Reaction profiles and bond energies **Bioenergetics** - Factors affecting photosynthesis and respiration **Particle model of matter** - Changes of state, specific heat capacity and specific latent heat	**Chemical changes** - The reactivity series and electrolysis and neutralisation reactions **Atomic structure** - Nuclear radiation and radioactive decay	**Homeostasis & response** - Nervous and hormonal control
Year 11	**The rate & extent of chemical change -** Collision theory, catalysts and reversible reactions **Forces -** Calculating resultant forces and acceleration. Momentu m	**Inheritance, variation & evolution** - Inheritance, genetic engineering & **Organic chemistry** - Petrochemicals and their properties **Chemical analysis -** Purity, formulations, chromatography and gas tests	**Waves -** Properties of waves, the electromagnetic spectrum and its applications **Ecology** - Biodiversity, interdependence and human impact	**Chemistry of the atmosphere -** The changing atmosphere, greenhouse effect and atmospheric pollutants **Using resources -** Sustainable development, water treatment and life cycle assessments **Magnetism & Electromagnetism -** Magnetic fields and the motor effect	***Space -** The Solar System, Stars, The Big Bang (Triple Science Only) **Revision and preparation for exams**	**Exam season**