Year 9	Autumn term 1	Autumn term 2	Spring 1	Spring 2	Summer 1	Summer 2
Science	**Elements, mixtures and compounds**	**The human body**	**Energy and Forces**	**Evolution, environment and inheritance**	**Chemistry in our World**	**Electricity, magnetism and waves**
Knowledge & Skills	Elements Atomic structure Patterns in the periodic table Chemical reactions Word equations States of matter State changes Particle theory Molecules and giant structures Mixtures Separation techniques	Animal and plant cells Specialised cells Tissues Organs and organ systems of the human body Circulatory system Digestive system Enzyme action Respiration and the breathing system Lifestyle factors and health	Energy and system changes Efficiency and waste energy Thermal conductivity Heat transfer and insulation Earth's energy resources renewables and non-renewables Contact and non-contact forces Work done	Green plants as producers Photosynthesis Plant and animal adaptations Food chains Food webs Ecosystems Plant and animal competition The carbon cycle	Reactions of acids and metals Gas tests Neutralisation reactions Crystallisation Exothermic reactions Endothermic reactions Rates of chemical change The evolution of Earth's atmosphere	Building and drawing circuits Electric current Voltage Resistance Power supplies d.c. and a.c. Domestic electricity Electrical energy transfer Magnetism and electric current
Skills	Safe laboratory practice. Designing investigations. Making hypotheses. Testing hypotheses. Using and evaluating models Identifying and controlling variables Working cooperatively in groups Numeracy skills - operations	Use of microscopes Working cooperatively in groups Develop awareness of science in the news Numeracy skills - graphs/using formulae	Understanding science in the news Developing communication skills Safe laboratory practice. Collecting and recording data. Analysing and presenting data. Working cooperatively in groups	Developing communication skills Designing and conducting surveys Analysing family pedigree diagrams. Evaluating methods and procedures. Working cooperatively in groups Numeracy skills - operations	Using lab software Identifying and controlling variables Developing communication skills Testing hypotheses. Collecting data. Analysing data. Evaluating models. Working cooperatively in groups Numeracy skills - operations	Design investigations Test hypotheses Collect data. Analyse data. Evaluate methods and procedures. Understanding safe use of domestic electricity. Develop awareness of science in the news Numeracy skills - graphs/using formulae
Assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment	Live assessment & feedback 1 x Formative assessment (skills) 1 x Formative assessment (knowledge) 1 x Summative skills and knowledge assessment