Science: Y9 Long term Curriculum Plan

	Topic	Themes	Knowledge
Autumn 1	Biology	Ecosystems	Ecosystem components and dynamics. Effects of disease and predation. Effects of competition. Role of decomposers.
	Chemistry	Acid rain and neutralisation	Acids, bases and alkalis. Corrosion by acid rain. Indigestion and indigestion remedies.
	Physics	Simple Electric circuits	Components and wires. Conductors and insulators. Simple series circuits. Circuit diagrams. Current and potential difference. Static electricity.
Autumn 2	Biology	Pathogens	Characteristics of bacteria, fungi and viruses. Communicable disease Transfer of pathogens
	Chemistry	Periodic table	Metals and non-metals in the periodic table. Organisation of the periodic table. Atomic number and mass number.
	Physics	More electric circuits	Resistance, current and potential difference. Parallel circuits. Special components. Generators.
Spring 1	Biology	Human reproduction	Puberty and the menstrual cycle. Reproduction. Pregnancy and the menstrual cycle.
	Chemistry	Group 1 and group 7 elements	Physical and chemical properties. Observing and recording properties.
	Physics	Water waves and seismic waves	Properties of transverse waves.

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			Properties of longitudinal waves. Studying earthquakes
Spring 2	Biology	Health and Disease	Microorganisms and pathogens Pathogens and disease Types of pathogen How pathogens cause illness Uses of microorganisms
	Chemistry	Gases	Mass, volume and density Pressure in fluids and floating objects Heating effects on gases
Summer 1	Chemistry	Periodic table	Atomic model Physical properties of elements Trends in physical properties Trends in physical properties Chemical and physical properties of elements in the periodic table Grouping elements Atomic number and the periodic table
	Biology	Biodiversity, conservation and human Impact	Biodiversity Endangered and extinct species Negative human impact on biodiversity Positive human impact on biodiversity
	Physics	Floating, Sinking and convection	Density Mass and weight Pressure in liquids Convection in fluids
Summer 2	Physics	Magnets and electromagnets	Magnetic materials Magnetic poles and the magnetic force Compasses and the Earth Current and magnetism Solenoids

			Electromagnets Controlling the strength of an electromagnet
	Biology	Explaining evolution	Fossil evidence Heritable variation Intra-species competition Natural selection and evolution
	Chemistry	Atomic Structure and Bonding	Atomic structure Ionic compounds Covalent compounds Bonding and properties