Science Intentions

KNOWLEDGE LED – Substantive Knowledge

Key Themes	Year 7	Year 8	Year 9	Year 10	Year 11
Cells	Cells Movement Human reproduction	Digestion RSE	Breathing and Respiration RSE Variation and Inheritance	Cell biology Organisation Infection and response Bioenergetics	Homeostasis and response Inheritance and variation
Interdependence		Interdependence Plant reproduction	Photosynthesis Climate and the Earth's resources Evolution and extinction		Ecology Evolution Chemistry and The Earth's Atmosphere
Matter	Atoms, elements, compounds and mixtures Particle model Separating mixtures	Heating and cooling The Periodic table, metals and non-metals	Matter is built on through photosynthesis, respiration, density (pressure).	The Particle model Atomic Structure and The Periodic Table Chemical Changes	Organic Chemistry Chemical Analysis Using resources
Energy	Energy stores	Electricity Energy transfer and cost Chemical reactions Acid and alkalis	Waves – Light and sound	Energy Electricity Energy Changes Quantitative Chemistry	Waves Rate and extent of chemical change
Forces	Forces	Magnets and electromagnets	Pressure and Work done Moments Speed and Acceleration	Structures and Bonding	Forces A and B Magnetism and electromagnetism Space (seps only)