

Science - Year 10

	Topic / Objectives	Knowledge taught	Big picture links	Keywords	Key Skills
Autumn 1 st Half-term	B1- life processes	Microscopes, Cells and transport Cell division & differentiation Organisation and digestive system Organisation in animals and plants	SPDM- Design & Visualisation Maths- angles and 2D shapes Art- Natural Forms	eukaryotic, prokaryotic, bacteria, mitosis, stem cells, digestion, enzymes, meristems, microscopes, transport	
Autumn 2 nd Half-Term	C1- Periodic table and chemical processes	Atomic structure and separation techniques The periodic table Chemical calculations Chemical changes- reactivity series, displacement, making salts, neutralisation & pH	SPDM- Design & Visualisation Maths- fractions, decimals and percentages Art- Natural Forms	atoms, elements, compounds, mixtures, alkali, halogens, noble gases, bonding, concentration, electrolysis, endothermic, exothermic	
Spring 1 st Half-Term	P1- Energy & Resources	Conservation & dissipation of energy Energy transfer by heating Energy resources; renewable and non-renewable	SPDM- Electrics & Microcontrollers Art- Identity	energy, fuel, conduction, radiation, convection, renewable, non-renewable, dissipated	
Spring 2 nd Half-Term	B2- Disease & Bioenergetics	Communicable & non-communicable diseases Preventing and treating diseases Photosynthesis & respiration	SPDM- Electrics & Microcontrollers Art- Identity	Pathogen, disease, virus, bacteria, respiration, photosynthesis, transpiration, cancer, prevention	
Summer 1 st Half-Term	C2- Structures & Bonding	Atoms & ions Ionic, covalent and metallic bonding Electrolysis and extraction Energy changes; endo & exo	SPDM- Electrics & Microcontrollers Art- Identity	structure, ionic, covalent, metallic, reduction, oxidation, heat, transfer, exothermic, endothermic	
Summer 2 nd Half-Term	P2- Particles at work	Electric circuits and components Electricity in the home Molecules & matter; density, changes of state Radioactivity	SPDM- Design & Visualisation	alpha, gamma, beta, radiation, series, parallel, voltage, current, resistance, density, solid, liquid, gas	