

Year 7			
Term	Topic	Big Idea	Key Concepts
AUT	CELLS	THE CELLULAR BASIS OF LIFE	Living, dead and never been alive, cells and cell structures, cell shape and size, diffusion and the cell membrane
	SUBSTANCES AND MIXTURES	SUBSTANCES AND PROPERTIES	Particle model for the solid, liquid and gas states, particles in solution, particles in solution, separating solutions
	FORCES	FORCES AND MOTION	What forces do? describing forces, balanced and unbalanced forces, friction, energy stores and transfers
SPR	CELLS TO ORGAN SYSTEMS	THE CELLULAR BASIS OF LIFE	Working together – cells, tissues and organ systems, supplying cells – the human circulatory, digestive and gas exchange systems. The human skeleton and muscles
	SOUND AND LIGHT	SOUND, LIGHT AND WAVES	Production and transmission of sound, characteristics of light
	ELEMENTS AND COMPOUNDS/DESIGNING MATERIALS	PARTICLES AND STRUCTURE	Atoms and molecules, symbols and formulae, polymer properties
SUM	PROPERTIES AND MATERIALS	SUBSTANCES AND PROPERTIES	Composite materials, classifying materials
	INHERITANCE AND THE GENOME	HEREDITY AND LIFE CYCLES	Heredity and genetic information, The structure and function of the genome
	SOLAR SYSTEM, EARTH AND SUN	EARTH IN SPACE	Planets and the solar system, gravity, the night sky, stars and galaxies, days and seasons

Year 8			
Term	Topic	Big Idea	Key Concepts
AUT	VARIATION AND CLASSIFICATION	VARIATION, ADAPTATION AND EVOLUTION	Differences within species , changes in species over time – fossil evidence, Identifying and classifying organisms
	HEATING AND COOLING	MATTER	Temperature, Heating and cooling , thermal conduction , thermal store of energy
	CHEMICAL CHANGE AND SOLUBILITY	SUBSTANCES AND PROPERTIES	Comparing solubility, rearrangement of atoms, formation of new substance
SPR	HEALTH AND DISEASE	HEALTH AND DISEASE	Good and ill health, disease, diet and exercise, pathogens
	EARTH'S RESOURCES	EARTH CHEMISTRY	What is in a rock? Inside the Earth, making rocks by heating
	MOTION	FORCES AND MOTION	Describing speed, motion graphs, changing motion, drag, mass and weight, hidden forces, turning effects
SUM	UNDERSTANDING REACTIONS	PARTICLES AND STRUCTURE CHEMICAL REACTIONS	Representing reactions , conservation of mass , reactions in solution, combustion air quality
	CHANGES WITHIN A LIFETIME	HEREDITY AND LIFE CYCLES	Changes within an organism's lifetime , growth , life cycles
	ELECTRICITY	ELECTRICITY AND MAGNETISM	Making circuits, electric current , voltage , static electricity , resistance, magnetic fields electromagnets, parallel circuits

Year 9			
Term	Topic	Big Idea	Key Concepts
AUT	EVAPORATION	PARTICLES AND STRUCTURE	Explaining evaporation
	REPRODUCTION	HEREDITY AND LIFE CYCLES	Sexual reproduction in humans, contraception, sexual and asexual reproduction in flowering plants
	HOW WE SEE AND MAKE IMAGES	SOUND, LIGHT AND WAVES	The 'passive eye' model of vision , seeing in colour , the ray model of light to explain images, Refraction and lenses
	ENERGY AND REACTIONS	CHEMICAL REACTIONS	Exothermic and endothermic reactions
	ACIDS AND ALKALIS	SUBSTANCES & PROPERTIES PARTICLES	pH scale, Neutralisation , Acid rain
SPR	FLOATING AND SINKING	MATTER	Floating, sinking and density , pressure in fluids , convection
	BIOCHEMISTRY	THE CELLULAR BASIS OF LIFE	Plant nutrition, photosynthesis, cellular respiration
	WATER CYCLE	EARTH CHEMISTRY	Water cycle processes
	WEATHERING	EARTH CHEMISTRY DYNAMIC EARTH	Chemical weathering , physical weathering and erosion
	INTERDEPENDENCE	ORGANISMS AND THEIR ENVIRONMENTS	Food chains and food webs, Interdependence within ecosystems , ecosystem biodiversity, conservation and sustainability, components and dynamics
SUM	WAVES	SOUND AND LIGHT WAVES	Waves on water and ropes, A wave model of sound
	PERIODIC TABLE	SUBSTANCES & PROPERTIES PARTICLES/ STRUCTURE CHEMICAL REACTIONS	Trends in physical properties , atomic model , periodic patterns
	ROCK CHANGES	DYNAMIC EARTH	Making rocks by pressure and cementing , making fossil fuels
	EVOLUTION	VARIATION, ADAPTATION AND EVOLUTION	Explaining evolution