






Area	Big Idea	Year 7	Year 8	Year 9	Year 10	Year 11
 Forces	BI-Forces predict motion	7U-Contact forces 7K-Balanced & unbalanced 7K-Friction 7K-Density	8U-Movement 8K-Speed 8K-Motion graphs	9U-Acceleration 9K-Vectors 9K-Newton's 1 st law 9K-Acceleration	10U-Newton's laws 10K-Newton's 2nd law 10K-Momentum	
	BI-Fields produce forces		8U-Gravity 8K-Weight 8K-Gravitational force 8K-Solar system		10U-Magnetism 10K-Magnetic field 10K-Motor effect	
 Energy	BI-Energy is conserved	7U-Energy transfers 7K-Heat & temperature 7K-Energy 7K-Wasted energy		9U-Heating 9K-Thermal transfer 9K-Specific & latent 9K-Pressure		11U-Energy conservation 11K-Kinetic & potential 11K-Work
	BI-Electricity transfers energy	7U-Electric circuits 7K-Electric current 7K-Resistance	8U-Electrical energy 8K-Electric charge 8K-Potential difference		10U-Home electricity 10K-Energy resources 10K-Ohm's law 10K-Power	
	BI-Radiation transfers energy		8U-Light 8K-Reflection 8K-Refraction	9U-Sound & waves 9K-Wave model 9K-Longitudinal & transverse	10U-E.m. radiation 10K-Electromagnetic spectrum 10K-Wave behaviour	11U-Radioactivity 11K-Radioactive decay 11K-Half life

Area	Big Idea	Year 7	Year 8	Year 9	Year 10	Year 11
 Matter	BI-Structure determines properties	7U-Substances & particles 7K-Particle model 7K-Mixtures 7K-Solutions	8U-Pure substances 8K-Elements & compounds 8K-Simple & giant	9U-Periodic table 9K-Periodic patterns 9K-Subatomic particles	10U-Structure & bonding 10K-Ionic, covalent, metallic 10K-Electrolysis	11U-Carbon chemistry 11K-Hydrocarbons 11K-Refining
	BI-Reactions rearrange matter	7U-Changing substances 7K-Chemical & physical 7K-pH scale 7K-Neutralisation	8U-Reactants & products 8K-Acid reactions 8K-Oxidation & reduction	9U-Matter & energy 9K-Atom conservation 9K-Reaction energy	10U-Controlling reactions 10K-Reaction rate 10K-Equilibrium	11U-Making substances 11K-Making salts 11K-Amount of substance
	BI-Earth systems interact		8U-Earth systems 8K-Earth processes 8K-Potable water	9U-Using resources 9K-Metal reactivity 9K-Product lifecycle	10U-Atmosphere 10K-Earth's atmosphere 10K-Global warming	

Dependencies

Teach 'Photosynthesis' (biology) before 'Atmosphere'

Area	Big Idea	Year 7	Year 8	Year 9	Year 10	Year 11
 Organisms	BI-Cells are alive	7U-Cells 7K-Cell structure 7K-Specialised cells	8U-Respiration 8K-Cellular energy 8K-Aerobic & Anaerobic	9U-Growth & differentiation 9K-Cell transport 9K-Cell division	10U-Plants 10K-Photosynthesis 10K-Plant transport	
	BI-Bodies are systems		8U-Tissues & organs 8K-Cell organisation 8K-Digestive system 8K-Gas exchange	9U-Organ systems 9K-Circulatory system 9K-System damage 9K-Immune system	10U-Feedback & control 10K-Nervous system 10K-Endocrine system 10K-Enzymes	
	BI-Organisms are interdependent	7U-Interdependence 7K-Feeding relationships 7K-Competition 7K-Abiotic & biotic			10U-Human interaction 10K-Biodiversity 10K-Communicable disease	
 Genes	BI-Characteristics are Inherited	7U-Reproduction 7K-Sexual & asexual 7K-Menstrual cycle 7K-Embryo development		9U-Genetics 9K-Genes 9K-Monohybrid inheritance		11U-Controlling reproduction 11K-Reproductive hormones 11K-Genetic engineering
	BI-Species show variation		8U-Life diversity 8K-Variation 8K-Selective breeding 8K-Natural selection			11U-Evolution 11K-Evolutionary theory 11K-Classification

Dependencies

Teach 'Simple or giant' (chemistry) before 'Tissues & organs'

Teach 'Oxidation & reduction' (chemistry) before Respiration

Dependencies

Teach 'Enzymes' before 'Plants'