SCIENCE Programme of Study KS4 Year 11 (2024-25)

Northumberland's P.R.U.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
	Autumn 1 – 'Equality & Diversity'								**Autumn 2 – 'Living in the Wider World'**						
	Subject Area Topic: Cells, Human Digestive System, Plants, Atoms, Periodic Table, Compounds								**Subject Area Topic: Metals & Alloys, Power, Forces, Speed & Velocity, Respiration, Reproduction**						
	Cell specialisation Human digestive system	Enzymes Enzymes Prac. Heart + blood vessels	Blood Coronary Heart Disease	Plant tissue and organisms Photosynthesis Photosynthesis Prac.	The atom and electronic structure Group 1 Periodic table	Group 7 Periodic table Group 0 Periodic table Ionic bonding	Ionic compound properties. ASSESSMENT	Covalent bonding Polymers Giant covalent structures	Metals and alloys Changes in energy	Power and energy resources Forces and elasticity Spring constant prac	Speed and velocity Acceleration Newton's first law	Newton's second law Newton's third law	Respiration Homeostasis Human nervous system	Reproduction ASSESSMENT	Meiosis Genetic inheritance
	Notes/Links/Interleaving			**Additional Higher Content**					**Notes/Links/Interleaving**		**Additional Higher Content**				
	Spring 1 – 'The Circle of Life'						**Spring 2 – 'Conflict'**								
	Subject Area Topic: Sex Determination/Variation, Structures, Extraction, Reactions						**Subject Area Topic: Catalysts & Reactions, Distillation, Properties, Forces, Magnetism**								
	Sex determination Variation	Structures and bonding in carbon, diamond, graphite, graphene and fullerenes. Metal oxides and reactivity series.	Extraction of metals and reduction. Exothermic and endothermic reactions	Reaction profiles Rates of reaction- calculating rates of reaction	Factors that affect the rate of a reaction. ASSESSMENT	Required practical rates of reaction. Collision theory and activation energy	Catalysts and reversible reactions Equilibrium	Hydrocarbons Fractional distillation	Property of hydrocarbons and cracking	Forces and braking Stopping distance and reaction time		Magnetic fields Electromagnetism			

	Notes/Links/Interleaving		**Additional Higher Content**				**Notes/Links/Interleaving**		**Additional Higher Content**	
	Summer 1 – 'Health & Leisure'						**Summer 2 – 'Crime & Punishment' (CSI THEME)**			
	Subject Area Topic: Cath-up & Revision						**Subject Area Topic: Examinations**			
	Catch up period	Catch up period	REVISION	REVISION	REVISION	REVISION	GCSE EXAMS			
	Notes/Links/Interleaving		**Additional Higher Content**				**Notes/Links/Interleaving**		**Additional Higher Content**	