Stalham High School - Subject Curriculum Overview

Subject: Chemistry						
Year:10						
Half -Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Themes/ Content/ Units covered 	**Atomic Structure and the Periodic Table** Atoms, Elements and Compounds Mixtures and separation Techniques History of the atom Atomic Structure, Isotopes and Electronic Configuration, groups Development of the periodic table Chemical equations **SS ONLY:** Transition Metals	**Bonding, Structure and Properties of Matter** Ionic bonding, Compounds and Properties Covalent bonding and properties of simple and giant covalent structures Metallic bonding and alloys Changes of State Polymers **SS ONLY:** Nanoparticles and applications	**Quantitative Chemistry** Relative mass, conservation of mass, balancing and using moles in equations Limiting reactants Concentration of solutions **SS ONLY:** Yield and atom economy **SS ONLY:** Titrations and calculations Uncertainty in measurements	**Chemical Changes** Displacement reactions and extracting metals Making salts pH scale and neutralisation **SS ONLY**: Strong and weak acids	**Chemical Changes (cont.)** Electrolysis – introduction; products; electrolysis of brine and aqueous solutions and the extraction of aluminium	**Energy Changes** Endothermic and exothermic energy changes Using energy transfers Reaction profiles Bond energy calculations **SS ONLY:** Chemical cells and batteries and fuel cells