Chemistry – Combined Science (H&F) -Paper 1

Topic	Red Amber Green
Atomic Structure & The Periodic Table	
Elements, compounds & mixtures	
Atomic structure	
Development of the Atom	
Electronic configuration	
Ions	
Isotopes	
Periodic Table	
Group 1: Alkali Metals	
Group 7: Halogens	
Group 0: Noble gases	
Structures & Bonding	
Ionic bonding – structure & properties	
Simple covalent bonding – structure & properties	
Giant covalent bonding – structure & properties (Graphite & Diamond)	
Metallic bonding – structure & properties	
Fullerenes & graphene	
States of Matter	
Quantitative Chemistry	
Conservation of Mass	
Relative formula mass	
Moles (***higher only***)	
Concentration of solutions	
Reacting masses (***higher only***)	
Using moles to balance equations (***higher only***)	
Chemical Changes	
Metals & Oxygen	
Reactivity series	
Extracting metals	
Oxidation & Reduction	
Metals & Acid	
Neutralisation & pH	
Soluble salts	
Strong & weak acids (***higher only***)	
Electrolysis of molten substances	
Electrolysis – extracting Aluminium	
Electrolysis of solutions	
Energy Changes	
Endothermic & Exothermic reactions	
Reaction profiles	
Calculating bond energies (***higher only***)	

Chemistry – Combined Science (H&F) -Paper 2

Topic	Red	Amber	Green
Rate & extent of Chemical change:			
Measuring rate of reaction			
Calculating rate of reaction			
Factors effecting rate of reaction			
Collision theory			
Catalysts			
Reversible reactions			
Equilibrium			
Concentration & equilibrium (***higher only***)			
Temperature & equilibrium (***higher only***)			
Pressure & equilibrium (***higher only***)			
Hydrocarbons:			
Crude Oil & Alkanes			
Fractional distillation			
Combustion			
Cracking & Alkenes			
Chemical Analysis			
Pure substances			
Formulation			
Chromatography			
Testing for gases ***(Foundation only)***			
The Atmosphere			
Today's Atmosphere			
Early Atmosphere			
Greenhouse effect ***(Higher Only)***			
Global warming & Climate change ***(Higher Only)***			
Carbon footprint & limitations			
Atmospheric pollutants			
Sustainable Development			
Sustainable development			
Potable water			
Waste water			
Phytomining & Bioleaching (***higher only***)			
Life Cycle Assessment			

All **Revision** Materials are available for students on Teams: Click **here**