

**6TH YEAR CHEMISTRY WITH NICHOLA WALSH
ONLINE GRINDS PROGRAMME**

Session	Topic
1	Unit 1 - Bohr's Theory and Orbitals
2	Unit 1 - Periodic Table 1: Modern vs. Mendeleev, Isotopes, RAM, Mass Spectrometer
3	Unit 1 - Bonding 1: Ionic, Covalent, Writing Chemical Formulae, VSEPR
4	Unit 1 - Bonding 2: Electronegativity, Predicting Which Type of Bonding, and Intermolecular Forces
5	Unit 1 - Periodic Table 2: Trends
6	Unit 1 - Radioactivity
7	Unit 1 - History of the Atom and Testing for Anions
8	Unit 2 - Moles 1: Moles, Molecules, Empirical Formula
9	Unit 2 - Moles 2: Calculating Mass of Reactants/Products, and the Limiting Reagent
10	Unit 2 - Gas Laws 1: Theory
11	Unit 2 - Gas Laws 2: Calculations
12	Unit 2 - Acids and Bases
13	Unit 2 - Volumetric Analysis 1: Concentration and Titration Calculations for Acid-Base Reactions
14	Unit 2 - Oxidation and Reduction
15	Unit 2 - Volumetric Analysis 2: Redox Reactions
16	Unit 3 - Organic Chemistry 1: Hydrocarbons
17	Unit 3 - Organic Chemistry 2: Fuels, Fractional Distillation and Octane Number
18	Unit 3 - Organic Chemistry 3: Thermochemistry
19	Unit 3 - Organic Chemistry 4: Functional Groups
20	Unit 3 - Organic Chemistry 5: Organic Synthesis 1 (Addition and Substitution reactions)
21	Unit 3 - Organic Chemistry 6: Organic synthesis 2 (Elimination, Redox, Polymers, Chromatography)
22	Unit 4 - Rates of Reaction
23	Unit 4 - Equilibrium
24	Unit 4 - pH
25	Unit 4 - Water
26	Unit 4 - Electrochemistry
27	Unit 4 - Option 1: Industrial Chemistry
28	Unit 4 - Option 1: Atmospheric Chemistry
29	Key Calculations Revision