

Thursday HIGHER Chemistry
(single and combined science)

Date	Time	Course	Title	Learning points
16/11/2017	3pm-3.45pm	Chemistry	3. Quantities Part 2	Moles of solutions and gases
23/11/2017	3-4pm	All	4. Extracting metals	Reactivity Series Metal Oxides Extracting metals by reduction
30/11/2017	3pm-3.45pm	All	4. Reactions of Acids 1	Metals and Acids Strong and Weak acids pH and neutralisation Salts
	3.45-4.00pm	Chemistry		Titration
07/12/2017	3pm-3.45pm	All	4. Electrolysis	Electrolysis of a molten ionic compound Electrolysis of an aqueous solution Using electrolysis to extract metals
14/12/2017	3pm-3.45pm	All	5. Energy changes	Exothermic reactions Endothermic reactions Reaction profiles Energy change of reactions
04/01/2018	3pm-3.45pm	Chemistry	5. Chemical cells and Fuel Cells	Cells and batteries Fuel Cells
11/01/2018	3.00-4.00pm	All	6. Rate and extent of chemical change	Calculating Rates of reactions Factors which affect the rate of reactions Collision theory and activation energy Catalysts

18/01/2018	3.00-4.00pm	All	6. Reversible reactions and dynamic equilibrium	Reversible reactions Energy changes and reversible reactions Equilibrium Effects of changing conditions on equilibrium
25/01/2018	3.00-4.00pm	All	7. Carbon compounds as fuels and feedstock	Crude oil, hydrocarbons and alkanes Fractional distillation and petrochemicals Properties of hydrocarbons Cracking and Alkenes
01/02/2018	3.00-4.00pm	Chemistry	7. Reactions of Alkenes, Alcohols and Carboxylic acids	Structure and formulae of alkenes Reactions of alkenes Reactions of alcohols Reactions of carboxylic acids DNA and other naturally occurring polymers
08/02/2018	3.00-3.45pm	Chemistry	7. Synthetic and naturally occurring polymers	Addition polymerisation Condensation Polymerisation Amino Acids
15/02/2018	3.00-4.00pm	All	8. Purity, formulations and chromatography, Identification of common gases	Pure substances Formulations Chromatography Test for hydrogen Test for oxygen Test for carbon dioxide Test for chlorine

01/03/2018	3.00-4.00pm	Chemistry	8. Identification of ions by chemical means and instrumental methods	Flame tests Metal hydroxides Carbonates Halides Sulphates Instrumental methods Flame emission spectroscopy
08/03/2018	3.00-4.00pm	All	9. Composition and evolution of the Earth's atmosphere	Proportion of different gases in the atmosphere Earth's early atmosphere How oxygen increased How carbon dioxide decreased
15/03/2018	3.00-4.00pm	All	9. Carbon dioxide and methane as greenhouse gases	Greenhouse gases Human activities which contribute to an increase in greenhouse gases in the atmosphere Global climate change Carbon footprint and its reduction
22/03/2018	3.00-4.00pm	All	9. Common atmospheric pollutants and their sources	Atmospheric pollutants from fuels Properties and effects of atmospheric pollution

29/03/2018	3.00-4.30pm	All	1. Atomic structure	Atoms, elements and compounds Word and symbol equations Separating techniques History of the atomic model Size and mass of atoms Atomic structure
19/04/2018	3.00-4.00pm	All	1. Periodic table	History of the periodic table Groups 0, 1 and 7 Transition Metals
26/04/2018	3.00-4.00pm	All	2. Changes of state, ionic bonding	States of matter Joining of atoms Ionic compounds Properties of ionic compounds
03/05/2018	3.00-3.45pm	All	2. Covalent bonding	Joining of atoms Small molecules Giant structures
	3.45-4.00pm	Chemistry		Nanoparticles
10/05/2018	3.00-3.45pm	All	2. Metallic Bonding	Joining of atoms Properties of metals Alloys

17/05/2018	3.00-4.30pm	All	3. Chemical measurements	Balanced chemical equations Conservation of mass Relative formula mass Amounts of substances in equations Quantities in equations Using moles to balance equations Limiting factors Concentration of solutions
24/05/2018	3.00-4.30pm	Chemistry	3. Quantities	Percentage yield Atom Economy Moles of solutions and gases