

# Atomi HSC Chemistry Study Plan

EXAM DATE: 29 NOV 2021

## Revision (5–6 weeks from exam)

Session	Topic	Subtopic	Important lessons	Done
1	Equilibrium and Acid Reactions	Static and Dynamic Equilibrium		<input type="radio"/>
		Factors That Affect Equilibrium	Collision Theory and Le Chatelier's Principle (Part 1 and Part 2)	<input type="radio"/>
		Calculating the Equilibrium Constant	<u>Making Predictions with the Equilibrium Constant,</u> <u>Temperature and the Equilibrium Constant,</u> <u>Using RICE Tables and Equilibrium Constants</u>	<input type="radio"/>
2		Solution Equilibria	<u>Investigating Solubility Rules,</u> <u>Predicting the Formation of Precipitates</u>	<input type="radio"/>
	Acid/Base Reactions	Properties of Acids and Bases		<input type="radio"/>
		Using Brønsted–Lowry Theory	<u>Strength of Acids and Bases</u>	<input type="radio"/>
3		Calculations	<u>Dilution pH Calculations,</u> <u>Neutralisation pH Calculations,</u> <u>Acid Dissociation Constant Calculations</u>	<input type="radio"/>
		Quantitative Analysis	<u>Titration Calculations, Titration and pH Curves,</u> <u>Conductivity Curves</u>	<input type="radio"/>
4		Buffers	<u>Buffers</u>	<input type="radio"/>
	Organic Chemistry	Nomenclature	<u>Drawing Compounds From Their Names,</u> <u>Structural Isomerism</u>	<input type="radio"/>
		Hydrocarbons		<input type="radio"/>
5		Products of Reactions Involving Hydrocarbons	<u>Markovnikov's Rule for Addition Reactions</u>	<input type="radio"/>
		Alcohols	<u>Enthalpy of Combustion Practical,</u> <u>Comparing Fossil Fuels and Biofuels</u>	<input type="radio"/>
6		Reactions of Organic Acids and Bases	<u>Boiling Point and Solubility of Organic Compounds,</u> <u>Formation of Esters, Identifying and Naming Esters,</u> <u>Cleaning Action of Soap and Detergents,</u>	<input type="radio"/>
		Polymers	<u>Addition Polymers Properties and Uses,</u> <u>Condensation Polymers Properties and Uses</u>	<input type="radio"/>
7	Applying Chemical Ideas	Analysis of Organic Substances	<u>Test for Alkenes, Applying Infrared Spectroscopy,</u> <u>Interpreting Proton NMR Spectroscopy,</u> <u>Interpreting Carbon-13 NMR Spectra,</u> <u>Mass Spectrometry: Structure of Organic Molecules</u>	<input type="radio"/>
8		Analysis of Inorganic Substances	<u>Interpreting Precipitation Tests: Exam Application,</u> <u>Atomic Absorption Spectroscopy</u>	<input type="radio"/>
		Chemical Synthesis and Design	<u>Optimising Yield and Rate</u>	<input type="radio"/>



**Practice** (3–4 weeks from exam)

Session	Topic	Subtopic	Confidence	Done
9	Equilibrium and Acid Reactions	Static and Dynamic Equilibrium	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Factors That Affect Equilibrium	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Calculating the Equilibrium Constant	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
10	Acid/Base Reactions	Solution Equilibria	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Properties of Acids and Bases	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Using Brønsted–Lowry Theory	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
11		Calculations	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Quantitative Analysis	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
12	Organic Chemistry	Buffers	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Nomenclature	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Hydrocarbons	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
13		Products of Reactions Involving Hydrocarbons	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Alcohols	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
14		Reactions of Organic Acids and Bases	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Polymers	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
15	Applying Chemical Ideas	Analysis of Organic Substances	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
16		Analysis of Inorganic Substances	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>
		Chemical Synthesis and Design	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>