Atomi HSC Chemistry Study Plan

EXAM DATE: 09 NOV 2020

Revision (5–6 weeks from exam)

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

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Practice (3–4 weeks from exam)

Session	Topic	Subtopic	Confidence	Done
1	**Equilibrium and Acid Reactions**	Static and Dynamic Equilibrium	○ ○ ○ ○ ●	○
		Factors That Affect Equilibrium	○ ○ ○ ○ ●	○
		Calculating the Equilibrium Constant	○ ○ ○ ○ ○	○
2		Solution Equilibria	○ ○ ○ ○ ○	○
	Acid/Base Reactions	Properties of Acids and Bases	○ ○ ○ ○ ○	○
		Using Brønsted–Lowry Theory	○ ○ ○ ○ ○	○
3		Calculations	○ ○ ○ ○ ○	○
		Quantitative Analysis	○ ○ ○ ○ ○	○
4		Buffers	○ ○ ○ ○ ○	○
	Organic Chemistry	Nomenclature	○ ○ ○ ○ ○	○
		Hydrocarbons	○ ○ ○ ○ ○	○
5		Products of Reactions Involving Hydrocarbons	○ ○ ○ ○ ○	○
		Alcohols	○ ○ ○ ○ ○	○
6		Reactions of Organic Acids and Bases	○ ○ ○ ○ ○	○
		Polymers	○ ○ ○ ○ ○	○
7	**Applying Chemical Ideas**	Analysis of Organic Substances	○ ○ ○ ○ ○	○
8		Analysis of Inorganic Substances	○ ○ ○ ○ ○	○
		Chemical Synthesis and Design	○ ○ ○ ○ ○	○