

Chapelton Academy Curriculum Intent Plan 2023-2024

Chemistry - 2 Teacher Plan

Procedural Knowledge (Exam technique, skills etc)

a: modelling	b: calculations and using equations	c: Drawing line graphs from data	d: interpreting data from graphs and tables	e: decoding exam vocabulary	f: revision techniques	g: Managing time limited tasks	h: drawing apparatus		j: setting up apparatus	k: task collaboration	l: exam error/problem solving	m: drawing structures	n: extended response
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3.1.1 - Atomic Structure
3.1.2 - Amount of Substance
3.1.3 - Bonding
3.1.4 - Energetics
3.1.5 - Kinetics
3.1.6 - Equilibria
3.1.7 - REDOX
3.1.8 - Thermodynamics (Y13)
3.1.9 - Rate Equations (Y13)

3.1.10 - Equilibrium Constant, Kp (Y13)
3.1.11 - Electrode potentials (Y13)
3.1.12 - Acids & Bases (Y13)
3.2.1 - Periodicity
3.2.2 - Group 2 Metals
3.2.3 - Group 7
3.2.4 - Period 3 elements & oxides (Y13)
3.2.5 - Transition Metals (Y13)
3.2.6 - Reaction of ions in aqueous solution (Y13)

3.3.1 - Intro to Organic
3.3.2 - Alkanes
3.3.3 - Halogenoalkanes
3.3.4 - Alkenes
3.3.5 - Alcohols
3.3.6 - Organic Analysis
3.3.7 - Optical Isomerism (Y13)
3.3.8 - Aldehydes & Ketones (Y13)
3.3.9 - Carboxylic Acids & Derivatives (Y13)

3.3.10 - Aromatic Chemistry (Y13)
3.3.11 - Amines (Y13)
3.3.12 - Polymers (Y13)
3.3.13 - Amino Acids & DNA (Y13)
3.3.14 - Organic Synthesis (Y13)
3.3.15 - Nuclear Magnetic Resonance (Y13)
3.3.16 - Chromatography (Y13)

Both Teachers		Teacher 1					Teacher 2					Both Teachers							
Week	Date	# lessons	Disciplinary Knowledge sequence	Activities	DK this interweaves with	Procedural Knowledge progression	#lessons	Disciplinary Knowledge sequence	Activities	DK this interweaves with	Procedural Knowledge progression	RS Revision	HW Focus	Assessment	DATA/ Other				
1	04/09/2023	#					#												
2	11/09/2023	3	3.1.1 - Atomic Structure 1. Particles, mass number, isotopes 2. Electron configuration	Chemsheets Exampro	Underpins all aspects of Chemistry		2	3.1.3 - Bonding 1. Recap GCSE C/I/M bonding 2. Shapes of molecules & ions 3. Electronegativity & polarity 4. IMF	Modelling shapes Chemsheets Exampro Extended response	All aspects of the course	a,e,f,g,k,l,m,n	GCSE TOPICS Recap Activities							
3	18/09/2023	3	3.1.1 - Atomic Structure 3. TOF MS	TOF Exampro q's			a,b,e,k	2											
4	25/09/2023	3	3.1.2 - Amount of Substance 1. RAM/RMM 2. Balancing Equations 3. Moles & Avogadro (solid & solution) 4. PV=nRT 5. Molecular/Empirical	Chemsheets Booklet, Exampro questions Calculation modelling	Knowledge and skills used throughout the course	a,b,e,f,g,k,l,n	2												
5	02/10/2023	3								2									
6	09/10/2023	3								2	3.3.1 - Intro to Organic	Chemsheets Booklet Exampro	All future organic	a,e,f,l,m					
7	16/10/2023	3								2	1. Naming & different formulae								
8	23/10/2023	OCTOBER HALF TERM HOLIDAY																	
9	30/10/2023	3	Contingency for 3.1.2				2						Practical Exam Questions						
10	06/11/2023	3	3.1.2 - REQUIRED PRACTICAL	Prac Book		b,f,g,h,j,n	2	3.3.1 - Intro to Organic	Chemsheets Booklet Exampro	All future organic and physical organic topics	a,e,f,l,m								
11	13/11/2023	3	3.1.7 - REDOX 1. Oxidation & reduction 2. Oxidation states 3. Writing & Combining Half equations	Chemsheets Exampro		a,b,e,f,k,n	2	2. Mechanisms - brief (curly arrow & single dot examples) 3. Isomerism											
12	20/11/2023	3								2						Exampro q's			
13	27/11/2023	3					2	3.3.2 - Alkanes 1. Fractional Distillation 2. Cracking (Thermal v Cat) 3. Combustion	Exampro q's	All future organic and physical organic topics	a,e,f,l,m								
14	04/12/2023	3	3.3.4 - Alkenes 1. Structure, bonding, reactivity 2. Addition reactions (Br ₂ , HBr, H-OSO ₃ H) 3. Addition Polymerisation	Molecular Models Exampro q's Chemsheets		a,b,e,f,g,l,m,n	2	3.3.2 - Alkanes 4. Chlorination (FRM)	Exampro q's	3.3.1 3.1.5 3.3.3	a,e,f,l,m								
15	11/12/2023	3					2								AP - 3.1.1, 3.1.2, 3.1.3				
16	18/12/2023	3	Contingency Week					2	Contingency week										
17	25/12/2023	CHRSTMAS HOLIDAY																	
18	01/01/2024																		
19	08/01/2024	3	3.2.1 - Periodicity 1. s,p,d,f blocks 2. Trends in physical properties	Exampro q's Extended response		3.1.1 3.1.5 3.2.2 3.2.3 3.2.4	a,c,d,e,f,g,l,n	2			3.3.1 3.3.2 3.3.5				DATA - 11/1				
20	15/01/2024	3						2	3.3.3 - Halogenoalkanes		3.3.6								

21	22/01/2024	3	3.2.2 - Group 2 1. Trends 2. Reactivity 3. Solubility 4. Further uses (medicine/agriculture)	Exampro Extended responses Independent study tasks Chemsheets	3.2.1 3.2.3 3.1.1 3.1.3	a,b,c,d,e,k,l,n	2	1. Nucleophilic subst 2. Elimination 3. Ozone depletion	Chemsheets Exampro	3.3.6 3.3.7 3.3.14 3.1.1 3.1.4 3.1.6	a,b,e,f,g,l,m,n						
22	29/01/2024	3					2										
23	05/02/2024	3	3.2.3 - Group 7 1. Trends 2. ID of halides	Exampro Chemsheets	3.1.3 3.1.1 3.1.5 3.2.2 3.2.6	a,d,e,f,n	2	3.1.6 - Equilibria 1. Equilibria & Le Chateliers	Exampro Chemsheets	3.3 (All) 3.1.2 3.1.3	a,b,e,f,g,m,n,l						
24	12/02/2024	FEBRUARY HALF TERM															
25	19/02/2024	3	3.2.3 - Group 7 3. Uses of Chlorine & Chlorate	Exampro Chemsheets	3.1.3 3.1.1 3.1.5 3.2.2 3.2.6	a,d,e,f,n	2	3.1.6 - Equilibria 1. Kc expressions & calculations	Exampro Chemsheets	3.3 (All) 3.1.2 3.1.3	a,b,e,f,g,m,n,l						
26	26/02/2024	3	3.2 - REQUIRED PRACTICAL	Prac Books	3.2.1 3.2.2 3.2.3	h,j,k,l,n	2										
27	04/03/2024	Contingency Week															
28	11/03/2024	AP to be taken from 3.1.1, 3.1.2, 3.1.3, 3.1.7, 3.2.1, 3.2.2, 3.2.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4															
29	18/03/2024	3	3.1.4 - Thermodynamics 1. Enthalpy Changes 2. Calorimetry	Exampro Chemsheets	3.3 (most) 3.1.1 3.1.2 3.1.3	a,b,c,d,e,f,l,m		3.3.5 - Alcohols 1. Production & Carbon neutrality	Extended response Pro's/Cons	3.3.1 3.3.2 3.3.3 3.3.4 3.1.2 3.1.4 3.1.6	a,b,d,e,f,g,k,l,m,n						
30	25/03/2024	3	3.1.4 - Thermodynamics 3. Hess's Law	Exampro Chemsheets	3.3 (most) 3.1.1 3.1.2 3.1.3	a,b,c,d,e,f,l,m		3.3.5 - Alcohols 2. Oxidation of alcohols	Chemsheets Exampro	3.1.7 3.1.1 3.3.1 3.3.2 3.3.3 3.3.7 3.3.8 3.3.9	a,b,d,e,f,g,k,l,m,n					DATA - 28/3 29/3 Holiday	
31	01/04/2024	EASTER HOLIDAY															
32	08/04/2024	EASTER HOLIDAY															
33	15/04/2024	3	3.1.4 - Thermodynamics 4. Bond Enthalpies	Exampro Chemsheets	3.3 (most) 3.1.1 3.1.2 3.1.3	a,b,c,d,e,f,l,m		3.3.5 - Alcohols 3. Elimination of alcohols	Chemsheets Exampro	3.1.7 3.1.1 3.3.1 3.3.2 3.3.3 3.3.7 3.3.8 3.3.9	a,b,d,e,f,g,k,l,m,n						
34	22/04/2024	3	3.1.4 - REQUIRED PRACTICAL	Prac Books	3.1.4 3.1.2 3.1.3	h,j,n,b,c,d		3.3.5 - REQUIRED PRACTICAL	Prac Books	3.3.1 3.3.4 3.3.5 3.3.6	e,g,h,j,k,l,m						
35	29/04/2024	3	3.1.5 - Kinetics 1. GCSE Recap - RofR 2. Maxwell-Boltzmann	GCSE Notes Chemsheets Exampro	3.1.3 3.1.9	a,d,e,g,l		3.3.6 - Organic Analysis 1. ID of functional groups by rxn	Chemsheets Exampro	3.3 (All)	a,b,d,e,f,g,k,l,m,n						
36	06/05/2024	3	3.1.5 - Kinetics 3. Effect of factors on MB distribution	GCSE Notes Chemsheets Exampro	3.1.3 3.1.9	a,d,e,g,l		3.3.6 - Organic Analysis 2. High Res MS	Chemsheets Exampro	3.3 (All)	a,b,d,e,f,g,k,l,m,n					Holiday 6/5	
37	13/05/2024	3	3.1.5 - REQUIRED PRACTICAL	Prac Books	3.1.5	c,d,e,h,j,k		3.3.6 - Organic Analysis 3. IR Spectroscopy	Chemsheets Exampro	3.3 (All)	a,b,d,e,f,g,k,l,m,n						
38	20/05/2024	3	CONTINGENCY WEEK						3.3.6 - REQUIRED PRACTICAL								
39	27/05/2024	SPRING BANK HOLIDAY															
40	03/06/2024	3	Revision/Retrieval quizzes/catch up practical/						Revision/Retrieval quizzes/catch up practical/								
41	10/06/2024	3	Revision/Retrieval quizzes/catch up practical/														
42	17/06/2024	Y12 STUDY LEAVE STARTS															
43	24/06/2024	25th June - 2nd July - Y12 Mocks															
44	01/07/2024	3rd - 5th July - Post - 18 days															
45	08/07/2024																
46	15/07/2024	WORK EXPERIENCE WEEK															
47	22/07/2024																
48	29/07/2024																