Year 12 Work Plan for the Period Sep 2014 - Dec 2014

Course: AS Chemistry
Teacher: B.P. Howe
Prescribed Text: Cambridge AS and A Level Chemistry (Ratcliff etc)
Support materials: Edexcel AS book
Number of periods per week: 8 (6 theory + 2 laboratory)

Week	Date	Theory					Practical No.	Hazards
		Topic	Text book page number	Syllabus section	Manual references	CIE SoW Section		
35	27-Aug	First week, introduction etc.						
36	1-Sep	***Chapter 1 Atomic structure*** Discovering the electron	p 2	1		1	9701_w01_qp3	**C, F, H, N, O, T, Δ**
37	8-Sep	Atomic and mass numbers Isotopes, electrons in atoms, ionisation energy	p 6-9	1		1	9701_s02_qp3	**C, F, H, N, O, T, Δ**
38	15-Sep	Electronic configurations, page 12 ***Chapter 2 Atoms, molecules and stoichiometry***	p 12-15	2		1	9701_w02_qp3	**C, F, H, N, O, T, Δ**
39	21-Sep	Counting atoms and molecules Determining A_r, Avogadro's constant	p 16-19	1		1	9701_s03_qp3	**C, F, H, N, O, T, Δ**
40	29-Sep	65th Year of the Revolution Holiday						
41	6-Oct	Empirical, molecular formulae, balancing equations	p 21-24	1		1	9701_w03_qp3	**C, F, H, N, O, T, Δ**
42	13-Oct	Calculations involving concentrations and gas volumes ***Chapter 3 Chemical bonding and structure***	p 24-29	1 3		1 1	9701_s04_qp3	**C, F, H, N, O, T, Δ**
43	20-Oct	Ionic bonding, dot-+-cross diagrams, covalent bonding, lone pairs, polarisation, shapes of molecules	p 30-38	3			9701_w04_qp3	**C, F, H, N, O, T, Δ**
44	27-Oct	Bond angles, metallicbonding, ID-ID forces, hydrogen bonds, Nylon	p 39-39	3		1	9701_s05_qp3	**C, F, H, N, O, T, Δ**
45	3-Nov	***Chapter 4 States of matter***, solids, liquids and gases, comparing m.p. and b.p., intermolecular forces	p 50-56	4		1	9701_w05_qp3	**C, F, H, N, O, T, Δ**
46	10-Nov	Remarkable substances, real and ideal gases, PV = *n*RT, measuring M.Wt., lattice structures	p 58-65	4		1	9701_s06_qp3	**C, F, H, N, O, T, Δ**
47	17-Nov	Modern uses of materials ***Chapter 5 Chemical energetics***, endo-, exo-thermic, ΔH	p 67-72	5		2	9701_w06_qp3	**C, F, H, N, O, T, Δ**
48	24-Nov	$\Delta H_f^{\ominus}$ and other standard enthalpy chagnes, measuring ΔH, Hess's law and enthalpy cycles	p 74-85	5		2	9701_s07_qp3.1	**C, F, H, N, O, T, Δ**
49	1-Dec	***Chapter 6a Electrochemistry***, oxidation states, redox, uses of electrolysis, extraction of Al and Cu	p 94 - 98	6		2	9701_w07_qp3.1	**C, F, H, N, O, T, Δ**
50	8-Dec	***Chapter 7a Equilibria***, reversible reactions, Le Chateliêr's principle, effect of T, P, [ ] and catalysts	p 119-124	6		2	9701_s07_qp3.2	**C, F, H, N, O, T, Δ**

Notes:

Homework (+answers) and chapter notes are also issued at our website.
Chapter lengths vary and are given adequate time. Alterations may exist to the order too.
Each chapter has a set of objectives.
Details of each chapter are printed at the front of the chemistry textbook.
Titles in italics indicate chapter headings from *AS Level and A2 Chemistry* .
The manual issued to Year 12 students is chapter notes and are also at: http://regochem.webnode.com/students-work-pages/year-12/

2014

	January					February					March				
	1	2	3	4	5	5	6	7	8	9	9	10	11	12	13	14
Mo		6	13	20	27		3	10	17	24		3	10	17	24	31
Tu		7	14	21	28		4	11	18	25		4	11	18	25	
We	1	8	15	22	29		5	12	19	26		5	12	19	26	
Th	2	9	16	23	30		6	13	20	27		6	13	20	27	
Fr	3	10	17	24	31		7	14	21	28		7	14	21	28	
Sa	4	11	18	25		1	8	15	22		1	8	15	22	29	
Su	5	12	19	26		2	9	16	23		2	9	16	23	30	

	April					May					June					
	14	15	16	17	18	18	19	20	21	22	22	23	24	25	26	27
Mo		7	14	21	28		5	12	19	26		2	9	16	23	30
Tu	1	8	15	22	29		6	13	20	27		3	10	17	24	
We	2	9	16	23	30		7	14	21	28		4	11	18	25	
Th	3	10	17	24		1	8	15	22	29		5	12	19	26	
Fr	4	11	18	25		2	9	16	23	30		6	13	20	27	
Sa	5	12	19	26		3	10	17	24	31		7	14	21	28	
Su	6	13	20	27		4	11	18	25		1	8	15	22	29	

	July					August					September					
	27	28	29	30	31	31	32	33	34	35	36	37	38	39	40	
Mo		7	14	21	28		4	11	18	25	1	8	15	22	29	
Tu	1	8	15	22	29		5	12	19	26	2	9	16	23	30	
We	2	9	16	23	30		6	13	20	27	3	10	17	24		
Th	3	10	17	24	31		7	14	21	28	4	11	18	25		
Fr	4	11	18	25		1	8	15	22	29	5	12	19	26		
Sa	5	12	19	26		2	9	16	23	30	6	13	20	27		
Su	6	13	20	27		3	10	17	24	31	7	14	21	28		

	October					November					December					
	40	41	42	43	44	44	45	46	47	48	49	50	51	52	1	
Mo		6	13	20	27		3	10	17	24	1	8	15	22	29	
Tu		7	14	21	28		4	11	18	25	2	9	16	23	30	
We	1	8	15	22	29		5	12	19	26	3	10	17	24	31	
Th	2	9	16	23	30		6	13	20	27	4	11	18	25		
Fr	3	10	17	24	31		7	14	21	28	5	12	19	26		
Sa	4	11	18	25		1	8	15	22	29	6	13	20	27		
Su	5	12	19	26		2	9	16	23	30	7	14	21	28		

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2015

	January					February					March					
	1	2	3	4	5	5	6	7	8	9	9	10	11	12	13	14
Mo		5	12	19	26		2	9	16	23		2	9	16	23	30
Tu		6	13	20	27		3	10	17	24		3	10	17	24	31
We		7	14	21	28		4	11	18	25		4	11	18	25	
Th	1	8	15	22	29		5	12	19	26		5	12	19	26	
Fr	2	9	16	23	30		6	13	20	27		6	13	20	27	
Sa	3	10	17	24	31		7	14	21	28		7	14	21	28	
Su	4	11	18	25		1	8	15	22		1	8	15	22	29	

	April					May					June					
	14	15	16	17	18	18	19	20	21	22	23	24	25	26	27	
Mo		6	13	20	27		4	11	18	25	1	8	15	22	29	
Tu		7	14	21	28		5	12	19	26	2	9	16	23	30	
We	1	8	15	22	29		6	13	20	27	3	10	17	24		
Th	2	9	16	23	30		7	14	21	28	4	11	18	25		
Fr	3	10	17	24		1	8	15	22	29	5	12	19	26		
Sa	4	11	18	25		2	9	16	23	30	6	13	20	27		
Su	5	12	19	26		3	10	17	24	31	7	14	21	28		

	July					August						September					
	27	28	29	30	31	31	32	33	34	35	36	36	37	38	39	40	
Mo		6	13	20	27		3	10	17	24	31		7	14	21	28	
Tu		7	14	21	28		4	11	18	25		1	8	15	22	29	
We	1	8	15	22	29		5	12	19	26		2	9	16	23	30	
Th	2	9	16	23	30		6	13	20	27		3	10	17	24		
Fr	3	10	17	24	31		7	14	21	28		4	11	18	25		
Sa	4	11	18	25		1	8	15	22	29		5	12	19	26		
Su	5	12	19	26		2	9	16	23	30		6	13	20	27		

	October					November						December					
	40	41	42	43	44	44	45	46	47	48	49	49	50	51	52	53	
Mo		5	12	19	26		2	9	16	23	30		7	14	21	28	
Tu		6	13	20	27		3	10	17	24		1	8	15	22	29	
We		7	14	21	28		4	11	18	25		2	9	16	23	30	
Th	1	8	15	22	29		5	12	19	26		3	10	17	24	31	
Fr	2	9	16	23	30		6	13	20	27		4	11	18	25		
Sa	3	10	17	24	31		7	14	21	28		5	12	19	26		
Su	4	11	18	25		1	8	15	22	29		6	13	20	27		

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Schemes of Work (2009)

AS Scheme of Work overview

AS Unit 01 Atoms, molecules and chemical bonding
AS Unit 02 Enthalpy changes, equilibria and kinetics
AS Unit 03 Inorganic Chemistry
AS Unit 04 Organic Chemistry: introduction, alkanes, alkenes, addition polymers, halogenoalkanes
AS Unit 05 Organic Chemistry: alcohols, aldehydes, ketones, carboxylic acids, esters

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting	
				AS Level	A Level
1	Multiple-choice	1 h	40	31%	15%
2	AS structured questions	1 h 15 min	60	46%	23%
3	Advanced Practical Skills	2 h	40	23%	12%
4	A2 structured questions	1 h 45 min	100		38%
5	Planning, Analysis and Evaluation	1 h 15 min	30		12%

Schemes of Work

- A2 Scheme of Work overview (34Kb)
- A2 Unit 06 Ionic compounds, electrochemistry (55Kb)
- A2 Unit 07 Ionic equilibria, pH, buffers, solubility product, reaction kinetics (74Kb)
- A2 Unit 08 Group IV, transition elements (64Kb)
- A2 Unit 09 Organic Chemistry: arenes, phenols, carboxylic acid derivatives (52Kb)
- A2 Unit 10 Organic Chemistry: nitrogen compounds, condensation polymers (47Kb)
- A2 Unit 11 Applications of Chemistry: Chemistry of Life; Analytical Chemistry; Design and Materials (150Kb)
- AS Scheme of Work overview (35Kb)
- AS Unit 01 Atoms, molecules and chemical bonding (174Kb)
- AS Unit 02 Enthalpy changes, equilibria and kinetics (53Kb)
- AS Unit 03 Inorganic Chemistry (59Kb)
- AS Unit 04 Organic Chemistry: introduction, alkanes, alkenes, addition polymers, halogenoalkanes (52Kb)
- AS Unit 05 Organic Chemistry: alcohols, aldehydes, ketones, carboxylic acids, esters (46Kb)