

**Science - KS4 YEAR 10 GCSE CHEM & PHYS - LEARNING JOURNEY 2018-2019**

**AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. (40%)**

**AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures (in an unfamiliar context). (40%)**

**AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures. (20%)**

Week	Date	Key Constructs and Assessment Objectives	Assess Schedule	Topic
1	03.09.18	Atomic structure Interleaving	C1	Chemistry Paper 1 4.1-4.5
2	10.09.18	Bonding Interleaving	C1	
3	17.09.18	Conservation of mass, formula mass	C1	
4	24.09.18	Mass changes, uncertainty	C1	
5	01.10.18	Concentration of solns, <b>HT: moles, balancing, limiting reactants</b>	C1	
6	08.10.18	Yield, atom economy, mol/dm <sup>3</sup>	C1	
7	15.10.18	Gas volumes	C1	
8	29.10.18	Acids & metals, pH scale, neutralisation, sol. salts, titrations	P1	Chemistry Paper 1 4.1-4.5
9	05.11.18	HT: s/w acids, Electrolysis, HT: half equations	P1	
10	12.11.18	Exothermic and endothermic reactions, HT: bond energies	P1	
11	19.11.18	HT: bond energies, chemical cells and fuel cells	P1	Physics Paper 1 4.1-4.4
12	26.11.18	Energy Interleaving	P1	
13	03.12.18	Electricity Interleaving	P1	
14	10.12.18	Density, change of state, internal energy	P1	
15	17.12.18	Specific heat capacity, latent heat	P1	
16	07.01.19	Particle motion in gases and gas pressure	B1	Physics Paper 1 4.1-4.4
17	14.01.19	Atomic structure, isotopes, development of model of atom	B1	
18	21.01.19	Radioactive decay, nuclear equations, half life	B1	
19	28.01.19	Contamination, hazards and uses	B1	
20	04.02.19	Nuclear fission and fusion	B1	
21	11.02.19	Rates of reaction	B2	
22	25.02.19	RPA's	B2	Chemistry Paper 2 4.6-4.10
23	04.03.19	Reversible reactions, <b>HT: Change in equilibrium</b>	B2	
24	11.03.19	Alkanes, fractional distillation, cracking	B2	
25	18.03.19	Alkenes, alcohols, carboxylic acids	B2	
26	25.03.19	Polymerisation (addition, condensation, amino acids, DNA)	B2	
27	01.04.19	Purity, formulations, chromatography RPA	B2	
28	22.04.19	Gas testing, identifying ions, instrumental methods	Rev	Chemistry Paper 2 4.6-4.10
29	29.04.19	Changing atmospheric gases, greenhouse gases, carbon footprint	Rev	
30	06.05.19	<b>Year 10 exams</b>	C2	
31	13.05.19	Atmospheric pollutants, using resources, potable water RPA	C2	
32	20.05.19	Waste water, <b>HT: extrac. Metals.</b> LCA's and reduce resources	C2	
33	03.06.19	Corrosion, alloys, ceramics, polymers & composites	C2	Main
34	10.06.19	The Haber process, NPK fertilisers	C2	
35	17.06.19	SLOP	C2	
36	24.06.19	SLOP	C2	
37	01.07.19	College taster days	C2	
38	08.07.19	SLOP	Rev	
39	15.07.19	Activities/ develop day		
40		Activities/ develop day		