

Subject	Triple Science - Chemistry
Specification	AQA
Recommended Revision Guides	Available through School Gateway: Collins GCSE Grade 9-1 Revision - AQA GCSE 9-1 Chemistry All-in-One Complete Revision and Practice.
Recommended websites and other resources	https://cognitoedu.org/home Access Sparxscience using the Sparxmaths login - https://sparxmaths.com/ One stop revision checklists.

Link to the GCSE Specification :	*****Click here for the specification*****
Year 11 Science Revision Google Classroom Code:	5dz44fe
Link to the Year 11 Science Revision Google Classroom:	*****Click here for the Year 11 Revision Google Classroom*****

Paper 1 - Topic 1 - Atomic structure and the periodic table

Spec Ref	Spec Page	Topic 1 - Atomic structure and the periodic table	Kerboodle Knowledge organiser Link	Video Link	SPARX Science Independent Learning Code
4.1.1.1	18	Atoms, elements and compounds	C1	Video link - Atoms	R447 R771
4.1.1.2	19	Mixtures	C1	Video - compounds, molecules and Mixtures	R616 R550
4.1.1.3	20	The development of the model of the atom (common content with physics)	C1	Video link - History of Atom	R793
4.1.1.4	21	Relative electrical charges of subatomic particles	C1	See Video link - atoms	R945
4.1.1.5	21	Size and mass of atoms	C1	See Video link - atoms	R646
4.1.1.6	21	Relative atomic mass	C1	See Video link - atoms	R365 R330
4.1.1.7	22	Electronic structure	C1	Video - Electronic Structure	R293
4.1.2.1	22	The periodic table	C2	Video - modern periodic table	R684
4.1.2.2	23	Development of the periodic table	C2	Video - History of Periodic Table	R842
4.1.2.3	23	Metals and non-metals	C2	Video - Metals and Non-metals	R468
4.1.2.4	24	Group 0	C2	Video - Group 0 and Group 7	R572
4.1.2.5	24	Group 1	C2	Video - Group 1 Metals	R925 R406
4.1.2.6	25	Group 7	C2	See video Group 0 and Group 7	R580 R715
4.1.3.1	25	Transition metals: Comparison with Group 1 elements (Chemistry only)	C2	Video link - transition metals	R843
4.1.3.2	26	Typical properties(Chemistry only)	C2	See video link transition metals	
Links to paper questions on this topic: Past paper questions and mark schemes - do topics 1.1 & 1.2 only					

Paper 1 - Topic 2 -Bonding, structure, and the properties of matter

4.2.1.1	26	Chemical bonds	C3	See other bonding videos below	
4.2.1.2	27	Ionic bonding	C3	Video - Atoms into Ions Video - Ionic Bonding	R868 R581 R199
4.2.1.3	27/28	Ionic compounds	C3	Video - Ionic Compounds	R557
4.2.1.4	29/30	Covalent bonding	C3	Video - Covalent bonding	R467 R916 R283 R677
4.2.1.5	30	Metallic Bonding	C3	Video - Metallic bonding	R928
4.2.2.1	31	The three states of matter	C3	Video - states of matter	R211 R983
4.2.2.2	32	State symbols	C3	Video - state symbols	R272
4.2.2.3	32	Properties of ionic compounds	C3	See Video – Ionic compounds	R562
4.2.2.4	32	Properties of small molecules	C3	Video - properties of simple and giant covalent compounds	R876

4.2.2.5	33	Polymers	C3	Video - polymers	
4.2.2.6	33	Giant covalent structures	C3	See Video - properties of simple and giant covalent compounds	R338
4.2.2.7	33	Properties of metals and alloys	C3	See video – Metallic bonding	R444 R596
4.2.2.8	33	Metals as conductors	C3	See video – Metallic bonding	SEE ABOVE
4.2.3.1	34	Structure of Diamond	C3	Video - Structure of Diamond and Graphite	R901
4.2.3.2	34	Structure of Graphite	C3	See video – Structure of diamond and graphite	R901
4.2.3.3	35	Graphene and fullerenes	C3	Video - Graphene and Fullerenes	R237
4.2.4.1	35	Sizes of particles and their properties	C3	Video link - Nano particles and their properties	R530
4.2.4.2	36	Uses of nanoparticles	C3	See video link - Nanoparticles	R957
Links to paper questions on this topic: Links to past exam papers by topic. Do 2.1, 2.2 and 2.3 only for combined science					

Paper 1 - Topic 3 - Quantitative Chemistry

4.3.1.1	37	Conservation of mass and balanced chemical equations	C4	Video - conservation of mass	R533
4.3.1.2	37	Relative formula mass	C4	Video - Relative formula mass	R195
4.3.1.3	37	Mass changes when a reactant or product is a gas	C4	Video link - Conservation of mass	R497
4.3.1.4	38	Chemical measurements	C4		R155
4.3.2.1	38	Moles (HT only)	C4	Video - The mole	R223
4.3.2.2	39	Amounts of substances in equations (HT only)	C4	See the video – The mole	R624
4.3.2.3	39	Using moles to balance equations (HT only)	C4	See the video – The mole	R143
4.3.2.4	40	Limiting reactants (HT only)	C4	Video - limiting reactants	R380
4.3.2.5	40	Concentration of solutions	C4	Video - concentration	R807
4.3.3.1	41	Percentage yield (Chemistry only)	C4	Video link - percentage yield	R463
4.3.3.2	41	Atom economy (Chemistry only)	C4	Video link - atom economy	R474
4.3.4	42	Using concentrations of solutions in mol/dm ³ (chemistry only) (HT only) (Chemistry only)	C4	Video link - concentration of solutions Video link - Moles, concentration, volume calculations	R262
4.3.5	43	Use of amount of substance in relation to volumes of gases (chemistry only) (HT only)	C4	Video link - gas calculations	R985 R332
Links to paper questions on this topic: Past paper questions - Combined science topics 3.1, 3.2, 3.4					

Paper 1 - Topic 4 – Chemical changes

4.4.1.1	43	Metal oxides	C5	See reactivity series video	R681
4.4.1.2	44	The reactivity series	C5	Video - reactivity series	R981
4.4.1.3	45	Extraction of metals and reduction	C5	Video - extraction of metals	R483
4.4.1.4	45	Oxidation and reduction in terms of electrons (HT only)	C5	Video - oxidation and reduction	R245
4.4.2.1	46	Reactions of acids with metals	C5	Video - acids and bases	R828
4.4.2.2	46	Neutralisation of acids and salt production	C5	Video - Neutralisation	R142 R495
4.4.2.3	47	Soluble salts ***RP 1***	C5	See video neutralisation and Required Practical 1 video below	R886 R412
4.4.2.4	47	The pH scale and neutralisation	C5	See video – acids and bases	R529
4.4.2.5	48	Titration (chemistry only) ***RP 2***			R539 R892

4.4.2.6	48	Strong and weak acids (HT only)	C5	Video - strong and weak acids	R309 R629
4.4.3.1	49	The process of electrolysis	C6	Video - Electrolysis basics and molten compounds	R298
4.4.3.2	49	Electrolysis of molten ionic compound	C6	See Video - Electrolysis basics and molten compounds	R672
4.4.3.3	50	Using electrolysis to extract metals	C6	Video - Electrolysis to extract metals	R792
4.4.3.4	50	Electrolysis of aqueous solutions ***RP 3***	C6	Video - electrolysis of aqueous solutions See RP2 video below	R279 R866
4.4.3.5	51	Representation of reactions at electrodes as half equations (HT only)	C6	Video - half equations	R671
Links to paper questions on this topic: Past paper questions - Electrolysis					

Paper 1 - Topic 5 – Energy Changes

4.5.1.1	52	Energy transfer during exothermic and endothermic reactions ***RP 4***	C7	Video - Endo and Exothermic Reactions	R833 R466
4.5.1.2	53	Reaction profiles	C7	See video endo and exothermic reactions	R675
4.5.1.3	53	The energy change of reactions (HT only)	C7	Video - bond energies	R769
4.5.2.1	54	4.5.2.1 Cells and batteries (chemistry only)	C7	Video link - Cells and Batteries	R120
4.5.2.2	54	Fuel cells (chemistry only)	C7	Video link - fuel cells	R836
Links to paper questions on this topic			Past paper question - Energy changes		

RP	Required Practical Name	Video of Required Practical	SPARX Independent Learning Code
1	Making salts	RP1 Video - making salts	R412
2	Titration	RP2 Video - Titrations	R892
3	Electrolysis of solutions	RP2 Video - Electrolysis of solutions	R866
3	Energy changes	RP3 Video - Energy changes	R466