

## YEAR 11 Combined Science Trilogy REVISION PLAN 2020

PART	PERCENTAGE	WHAT IS IT?	DATE
<b>Biology Paper 1</b>  1. Cell Biology 2. Organisation 3. Infection and response 4. Bioenergetics	16.7%	EXAM /70  1 hr 15 mins  Multiple choice, structured, closed short answer and open response.	12 <sup>th</sup> May  PM
<b>Biology Paper 2</b>  5. Homeostasis and response 6. Inheritance, variation and evolution 7. Ecology	16.7%	EXAM /70  1 hr 15 mins  Multiple choice, structured, closed short answer and open response.	1 <sup>st</sup> June  PM
<b>Chemistry Paper 1</b>  8. Atomic theory and the periodic table 9. Chemical bonding 10. Quantitative chemistry 11. Chemical changes 12. Energy changes	16.7%	EXAM /70  1 hr 15 mins  Multiple choice, structured, closed short answer and open response.	14 <sup>th</sup> May  AM
<b>Chemistry Paper 2</b>  13. Rate and extent of chemical change 14. Organic chemistry	16.7%	EXAM /70  1 hr 15 mins  Multiple choice, structured, closed short answer and	10 <sup>th</sup> June

15. Chemical analysis 16. Chemistry of the atmosphere 17. Using resources		open response.	PM
<b>Physics Paper 1</b> 18. Energy 19. Electricity 20. Particle model of Matter 21. Atomic Structure	16.7%	EXAM /70 1 hr 15 mins Multiple choice, structured, closed short answer and open response.	20 <sup>th</sup> May PM
<b>Physics Paper 2</b> 22. Forces 23. Waves 24. Magnetism & Electromagnetism	16.7%	EXAM /70 1 hr 15 mins Multiple choice, structured, closed short answer and open response.	12 <sup>th</sup> June AM

#### WAYS TO REVISE:

- Its all about retrieval practice....!
- Spend 30 minutes on each day revising the topics specified
- Question and answer flash cards
- Knowledge organisers and quizzing (look, cover check method)
- Practical lab book
- CGP revision flash cards
- Assessment questions and specification-  
<http://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464/assessment-resources>
- GCSE Bitesize (AQA Trilogy)
- Your class notes, reading them, testing yourself
- Use the timetable for topics to revise
- Use your mock to analyse what you need to revise
- Seek help from science staff if you are struggling with a particular topic
- Identify your areas of weakness and focus on them
- Dedicate each week to specific topics
- Get a lined paper notepad to make notes in for each topic using Cornell technique.



Week beginning ↓	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
20/01/20	B1.1** C 8.1 P18: 1	B1.2 and 3 C 8.2** P18: 2	B1.4 C 8.3 P18: 3	B2.1 C 8.4 P18: 4	B2.2 C9.1 P19:1	B2.3 C9.2 P19:2	B1.5 and 6** C9.3 P19:3**
27/01/20	B2.4** C14.1 P18: 5**	B2.5 C14.2 P18: 6**	B2.6 C14.3 P19: 4**	B1.7 C9.4 P19: 4**	B1.8 and 9 C9.8 P18:7	B1.10 C9.9 P18:8	Bio: Topic 1 test & review C13.1** P19:5
03/02/20	B4.3** C13.2 P19:6	B4.4 C13.3 P18:9	B2.7 C13.4 P18:10	B2.8 C15.1 P19:7	B2.9 C15.2 P19:8	B4.5 C15.3** P18 test	B4.6 C15.4** P18 test
10/02/20	B4.1** C11.1 Review P18 test	B4.2 C11.2 P19 test	Bio: Topic 4 test & review C11.3 P19 test	B2.10 C11.4-6** Review P19 test	B2.11 C16.1 Review P18 practical	B2.12 C16.2 Review P19 practical	Complete Topic 2 end of unit test and review C16.3 Quiz on P18&19 practical
17/02/20 <u>HALF</u> <u>TERM</u>	<p style="text-align: center;">Bio: Go back to Unit 1 topics C10.1-4/C14.5-6</p> <p style="text-align: center;">Physics: complete specimen paper 1 and review (leave out parts on topics not revised yet; P21 &amp; P20)</p>						
24/02/20	B3.1 C15.5 Review topic P18	B3.2 C15.6 Review topic P18	B3.3 C15.7 Review topic P18	B5.1 C15.8 Review topic P18	B5.2** C16.4 Review topic P18	B5.3 C16.5 Review topic P18	B5.4 C16.6 Review topic P18
02/03/20	B3.4 C8.5 Review topic	B3.5 C8.6	B3.6 C8.7 Review	B3.7 C11.8 Review	B3.8 C11.9 Review	B5.5 C10.5 Review	B5.6 C10.6 Review

	P19	Review topic P19	topic P19	topic P19	topic P19	topic P19	topic P19
09/03/20	Go back to Unit 5 topics C11.5-9 P24: 1			Complete Topic 3 end of unit test and review P23: 1	Go back to Unit 2 topics C10.5-6 P23:2**		
16/03/20	Complete specimen paper 1 and review C10.7-9 P23: 3 (HT)				Go back to Unit 1 topics C8.9-10 P23: 4 (HT)		
23/03/20	Go back to Unit 4 topics C9.4-13** P24: 2		Go back to Unit 3 topics C15.6-7 P24: 3&4 (HT)				
30/03/20	B7.1 C15.8 P23: 5	B7.2** C17.1 P23: 6	B7.3 and 4 C17.2** Review topic P18	B6.1 C17.3 Review topic P19	B6.2 C17.4 Review topic P24	Go back to Unit 1 topics C17.5 Review topic P23	
06/04/20 <u>EASTER</u>	B6.3 C12.1	B6.4 C12.2	B6.5 C12.3	B7.5 C12.3	B7.6 C11.8	B7.7 C11.9	B6.6 C11.10
13/04/20 <u>EASTER</u>	Go back to Unit 5 topics C8 test and review Physics: repeat specimen paper 1 and review (leave out parts on topics not revised yet; P21 & P20)		B6.7 Re-revise areas of weakness from specimen paper (P18/P19)	B6.8 Re-revise areas of weakness from specimen paper (P18/P19)	Complete Topic 5 end of test and review C9 test and review Re-revise areas of weakness from specimen paper (P18/P19)	B6.9 Re-revise areas of weakness from specimen paper (P18/P19)	

20/04/20	B6.10 C10.7 P20: 1**	Review topic B C10.8 P20:2	B7.8 C11.11 P20:3	B7.9 C11.12 P21:1	B7.10 C11.13** P21:2	Complete Topic 6 end of unit test and review C10 test and review P21:3
27/04/20	Go back to Unit 4 topics C12 test and review P20:4&5		Go back to Unit 3 topics Complete chemistry specimen 1 and review P20:6			
04/05/20	Go back to Unit 2 topics C8.11 P21: 4		Go back to Unit 1 topics C8.12 P21:5		Complete Topic 7 end of test and review C10.6-8 P22:1-4	
11/05/20	Go back to Biology paper 1 topics	Biology PAPER 1 EXAM	Go back to Chemistry paper 1 topics		Chemistry PAPER 1 EXAM	P21:6
18/05/20	Complete physics specimen paper	Review physics specimen paper	Physics PAPER 1 EXAM	B5.1-7	B6.1-10	
25/05/20 HALF TERM	B7.1-10			Go back to Biology paper 2 topics		
01/06/20	Biology PAPER 2 EXAM	P22:5(HT) P22:6&7	C12. 1-3 P22:8 P22:9**	C11. 4-9 P22:10-13 (P22:11=HT)		
08/06/20	Go back to Chemistry paper 2 topics		Chemistry PAPER 2 EXAM	Go back to Physics paper 2 topics	Physics PAPER 2 EXAM	

\*\*=required practicals to revise

<b>Topic B1</b> <b>Cell Biology</b> <b>Paper 1</b>	✓	<b>Topic B2</b> <b>Organisation</b> <b>Paper 1</b>	✓	<b>Topic B3</b> <b>Infection and response</b> <b>Paper 1</b>	✓
Microscopy**	1	Tissues and organs	1	Health, pathogens and disease	1
Animal and plant cells	2	Digestive system	2	Viral and bacterial diseases	2
Eukaryotic and prokaryotic	3	Chemistry of food**	3	Fungi and protist diseases	3
Cell specialisation	4	Enzymes**	4	Human defence responses	4
Diffusion	5	How digestive system works	5	Vaccination and antibiotics	5
Osmosis**	6	Efficiency of digestion	6	Discovering drugs	6
Active transport	7	Blood	7	Cancer, smoking, alcohol (non communicable diseases)	7
Cell division	8	Blood vessels and heart	8	Monoclonal antibodies (HT only)	8
Differentiation	9	Breathing and gas exchange	9		
Stem cells	10	Tissues and organs in plants	10		
		Transport systems in plants	11		
		Transpiration	12		
<b>Topic B4</b> <b>Bioenergetics</b> <b>Paper 1</b>	✓	<b>Topic B5</b> <b>Homeostasis and response</b> <b>Paper 2</b>	✓	<b>Topic B6</b> <b>Inheritance, Variation and Evolution</b> <b>Paper 2</b>	✓
Photosynthesis**	1	Structure of nervous system	1	Sexual and asexual reproduction	1
Rates of photosynthesis	2	Reflex actions**	2	Inheritance- punnet squares	2
Glucose	3	Blood glucose control	3	Inherited disorders and screening	3
Aerobic respiration	4	Diabetes	4	Variation and natural selection	4
Anaerobic respiration	5	Hormones and menstrual cycle (HT only)	5	Evolution	5
Metabolism and liver	6	Controlling fertility	6	Selective breeding and genetic engineering	6
		Infertility treatments (HT only)	7	Ethics of genetic technologies	7
				Fossils and extinction	8
				Antibiotic resistance	9

			Classification	10
<b>Topic 7 Ecology Paper 2</b>	✓			
Communities and their environment	1			
Distribution and abundance**	2			
Competition in plants and animals	3			
Adaptations in plants and animals	4			
Feeding relationships	5			
Carbon and water cycle	6			
Human population	7			
Pollution	8			
Deforestation and global warming	9			
Biodiversity	10			

<b>C 8</b>	✓	<b>C 9</b>	✓	<b>C 10</b>	✓
<b>Atomic theory and the periodic table</b>		<b>Bonding</b>		<b>Quantitative chemistry</b>	
Atoms, elements and compounds	1	Chemical bonds	1	Conservation of mass and balancing equations	1
Mixtures**	2	Ionic bonding	2	Relative formula mass	2
Developing model of the atom	3	Ionic compounds	3	Mass changes when a product is a gas	3
Relative electrical charges of subatomic particles	4	Covalent bonding	4	Chemical measurements	4
Size and mass of atoms	5	Metallic bonding	5	<b>Moles</b>	<b>5</b>
Relative atomic mass	6	States of matter and state symbols**	6	Amount of substance in equations	6
Electronic structure	7	Properties of ionic compounds	7	<b>Using moles to balance equations</b>	<b>7</b>
The periodic table	8	Properties of small molecules	8	<b>Limiting reactants</b>	<b>8</b>
Development of the periodic table	9	Polymers	9	<b>Concentration of solutions</b>	<b>9</b>
Metals and non-metals	10	Giant covalent structures	10		
Group 0	11	Metals and alloys	11		
Group 1	12	Structure and bonding in carbon	12		
Group 7	13	Graphene and fullerenes	13		
<b>C 11</b>	✓	<b>C 12</b>	✓	<b>C 13</b>	✓
<b>Chemical changes</b>		<b>Energy changes</b>		<b>Rate and extent of change</b>	
Metal oxides	1	Exothermic and endothermic reactions	1	Calculating rates of reaction**	1
The reactivity series	2	Reaction profiles	2	Factors which affect rate of reaction	2
Extraction of metals and reduction	3	<b>The energy change of reactions – bond energies</b>	<b>3</b>	Collision theory and rates of reaction – activation energy	3
Oxidation and reduction in terms of electrons	4			Catalysts	4
Reactions of metals with acids	5			Reversible reactions	5
Neutralisation of acids and salt production**	6			Energy changes and reversible reactions	6
Soluble salts	7			Equilibrium	7
pH scale and neutralisation	8			<b>Le Chatellier's principle – concentration</b>	<b>8</b>



Titration	9			Le Chatellier's principle – temperature and pressure	9
Strong and weak acids	10				
The process of electrolysis	11				
Using electrolysis to extract metals	12				
Electrolysis of solutions**	13				
Reactions as half equations	14				
<b>C 14 Organic chemistry</b>	✓	<b>C 15 Chemical analysis</b>	✓	<b>C 16 Chemistry of the atmosphere</b>	✓
Crude oil and hydrocarbons	1	Pure substances	1	Gases in the atmosphere	1
Fractional distillation and petrochemicals	2	Formulations	2	The Earth's early atmosphere	2
Properties of hydrocarbons	3	Chromatography**	3	How CO <sub>2</sub> and O <sub>2</sub> changed in the atmosphere	3
Cracking and alkenes	4	Testing for gases**	4	Greenhouse gases and human activity	4
Structure and formulae of alkenes	5			Global climate change and carbon footprint	5
				Atmospheric pollution	6
<b>C 17 Using resources</b>	✓				
Using resources and sustainable development	1				
Potable water**	2				
Waste water treatment	3				
Alternate methods of extracting metals	4				
Life cycle assessment and recycling	5				

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**PAPER 1 TOPICS**

<b>Topic 18</b>	✓	<b>Topic 19</b>	✓	<b>Topic 20</b>	✓	<b>Topic 21</b>	✓
<b>Energy</b>		<b>Electricity</b>		<b>Particle Model of Matter</b>		<b>Atomic Structure</b>	
Energy transfers/ conservation of energy	1	Circuits and symbols	1	Density**	1	Inside the atom	1
Efficiency	2	Current and charge	2	States of matter	2	Discovery of the nucleus	2
Kinetic energy & gravitational potential energy (GPE)	3	PD & resistance **	3	Change of state	3	Radioactive decay by alpha, beta and gamma	3
Elastic potential energy	4	I-V characteristics **	4	Internal energy	4	Radioactivity dangers	4
Energy transfer by heating **	5	Alternating current	5	Specific Latent Heat	5	Radioactivity uses	5
Specific heat capacity **	6	Cables and plugs	6	Gases and pressure	6	Half-life	6
Work done	7	Electrical current and energy transfer	7				
Power	8	Efficiency and appliances	8				
Non-renewable resources	9						
Renewable resources	10						

**PAPER 2 TOPICS**

<b>Topic 22 Forces</b>	✓	<b>Topic 23 Waves</b>	✓	<b>Topic 24 Magnetism &amp; Electromagnetism</b>	✓	✓	✓
Forces on force diagrams	1	Transverse and longitudinal waves	1	Magnetic fields	1		
Contact & non-contact forces	2	Properties of waves **	2	Magnetic effect of a solenoid	2		
Centre of mass	3	<b>Reflection of waves (HT)</b>	<b>3</b>	<b>Fleming's Left hand rule (HT)</b>	<b>3</b>		
Scalar & vector quantities	4	<b>Refraction (HT)</b>	<b>4</b>	<b>Motor effect (HT)</b>	<b>4</b>		
<b>Resolving forces &amp; parallelogram of forces (HT)</b>	<b>5</b>	Electromagnetic waves	5				
Distance-time graphs	6	Uses of electromagnetic waves	6				
Velocity-time graphs	7						
SUVAT	8						
Newton's laws of motion **	9						
Terminal velocity	10						
<b>Momentum (HT)</b>	<b>11</b>						
Forces & safety	12						
Forces & elasticity **	13						

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