

Combined Science Trilogy

Biology	Advent 1	Advent 2	Lent 1	Lent 2	Pentecoste 1
<b>Topics</b>	Separate Scientists - Hormonal Coordination and Homeostasis in Action Combined Scientists - Hormonal Coordination and Reproduction	Separate Scientists - Homeostasis in Action Reproduction. Combined Scientists - Variation and Evolution and Genetics	Separate Scientists - Variation and Evolution. Combined Scientists - Genetics and Evolution	Separate Scientists - genetics and Evolution. Combined Scientists Revision for exams.	Revision for exams
<b>Skills</b>	Use scientific knowledge to understand how the hormones in a human interact and the outcomes that result. Describe the role of negative feedback. Triples: Understand plant hormones and their responses. Use practical skills to show this. Explain how the kidney works, dialysis and transplants.	Triples: Use scientific knowledge to understand how the hormones in a human interact and the outcomes that result. Define asexual and sexual reproduction. Use probability, ratios and percentages for using punnet squares. Understand genetic inherited disorders and link it to punnet squares. Combined: Use data to explain nature / nurture. Understand genetic engineering and selective breeding, along with the ethics.	Triples: Use data to explain nature / nurture. Understand genetic engineering and selective breeding, along with the ethics. Combined: Understand how scientists use fossils. Describe different possible methods of extinction.	Triples: Understand how scientists use fossils. Describe different possible methods of extinction.	Use different revision techniques to help remember and use the key scientific knowledge.
<b>Key Questions</b>	Explain the main events of the menstrual cycle and describe the role of the hormones. Triple: Explain the advantages and disadvantages of treating kidney failure with dialysis or with a kidney transplant.	Compare cell division meiosis to mitosis. Evaluate the advantages and disadvantages of offering embryo screening for genetic disorders. Evaluate the ethical concerns surrounding genetic engineering.	Combined: Describe how different fossils are formed. Triple: Evaluate the ethical concerns surrounding genetic engineering.	Describe how different fossils are formed.	How do I revise the science knowledge? How can I check that I can use my knowledge in an exam situation?
<b>Assessment</b>	End of topic key sticky knowledge assessment (QQQs) Cumulative written assessment.	Y11 Mock Exam - Paper 1 Physics	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	Actual GCSE Exams Begin

Chemistry	Advent 1	Advent 2	Lent 1	Lent 2	Pentecoste 1
<b>Topics</b>	Separate science - Quantitative Chemistry; Organic Chemistry and polymers and Chemical Analysis. Combined Science - Chemical analysis and Earth's Atmosphere.	Separate Science - Chemical Analysis and Chemistry of our atmosphere. Combined science - Earth's Resources	Separate Science - Earth's Resources Combined Science - Earth's Resources	Reteach of the core scientific principles	Exam Revision
<b>Skills</b>	How to use chemical data in calculations. To use a range of qualitative tests to detect specific chemicals. Analyse of the natural and man-made causes of climate change.	To use a range of qualitative tests to detect specific chemicals. Analyse of the natural and man-made causes of climate change.	Analyse of the natural and man-made causes of climate change. To use scientific knowledge to understand how the Earth's limited resources.	Revision skills. Exam technique and practice	Use different revision techniques to help remember and use the key scientific knowledge.
<b>Key Questions</b>	How do forensic scientists use chemical tests to identify unknown materials? How has human activity affected the global climate?	How has human activity affected the global climate?	How do we use the Earth's limited resources? How can chemists limit the use of these limited resources?	What is the best approach to revision? How can I manage my time to revise efficiently and successfully for my GCSE's?	How do I revise the science knowledge? How can I check that I can use my knowledge in an exam situation?
<b>Assessment</b>	End of topic key sticky knowledge assessment (QQQs) Cumulative written assessment.	Y11 Mock Exam - Paper 1 Physics	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	Actual GCSE Exams Begin

Physics	Advent 1	Advent 2	Lent 1	Lent 2	Pentecoste 1
<b>Topics</b>	Motion, Force and Motion and Force and Pressure	Wave Properties and Electromagnetic Waves	Electromagnetic Waves and Light	Separate Science - Electromagnets Combined science - revision	Space for Separate Scientists only. Revision for Combined Scientists
<b>Skills</b>	Be able to carry out and explain key experiments of wave properties and Boyles law using the relative equipment to provide reproducible results	Be able to explain all the parts of the electromagnetic spectrum and there uses in a modern society	Students must be able to draw all the pathways of light associated with refraction, reflection and convex and concave lens	Students should be able to apply the principles of electric motors and transformers to everyday situations.	Students should be able to explain how our universe, galaxy and solar system were formed and anylase this process using red and ble shift
<b>Key Questions</b>	What causes any object to change direction in any situation, in any place in the universe	How do scientists use electromagnetic waves to treat cancer and communicate across vast distances	How do opticians use the physical theories of light to design glasses and other optical equipment	How does a speaker work. What type of motor is in and electric car, and how does electricity get safley transported to my home.	How do I revise the science knowledge? How can I check that I can use my knowledge in and exam situation?
<b>Assessment</b>	End of topic key sticky knowledge assessment (QQQs) Cummulative written assessment.	Y11 Mock Exam - Paper 1 Physics	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	End of topic key sticky knowledge assessment (QQQs) Mock Exam Paper 2	Actual GCSE Exams Begin