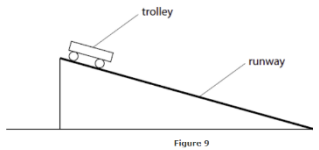
Year 10 Combined Science – Higher - Revision Plan June 2024

Week	Topic Area	Video Link	Activity-choose one or more!	Exam question: EXTENSION
Week 1 29th April	**Biology** Enzymes	**Biology** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1063~4k~jCaEVkFQ https://www.bbc.co.uk/bitesize/guides/z88hcj6/revision/1	**Biology** - Complete this week's Educake. - Answer exam questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards which show how enzymes work. Include labelled diagrams	**Biology** Describe how you would set up an investigation to determine the optimum pH for enzyme activity (6 marks)
	Chemistry Acids and Alkalis	**Chemistry** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1080~4j~J0Mfkbus https://www.bbc.co.uk/bitesize/guides/z8jt4qt/revision/1	**Chemistry** - Complete this week's Educake. - Answer exam questions and factual recall questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards which show the setup for preparing pure dry, copper sulfate. Include labelled diagrams of the equipment needed	**Chemistry** Describe how pure, dry copper sulfate crystals can be produced (6 marks)
	Physics Motion and Acceleration	**Physics** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1381~4n~NNVw9kmG https://www.bbc.co.uk/bitesize/guides/z2x9v9q/revision/3	**Physics** - Complete this week's Educake. - Answer exam questions and factual recall questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards to show what different lines on a distance time graph show	**Physics** Describe how the average speed of the trolley can be calculated (4 marks) Figure 9 shows the trolley and runway.  Figure 9

Week 2 **6th May**	**Biology** Genetics	**Biology** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1350~4j~J0Mik8us https://www.bbc.co.uk/bitesize/topics/zyh9fcw	**Biology** - Complete this week's Educake. - Complete the factual recall questions and the exam questions at the end of the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards with the key words and definitions (homozygous, heterozygous, dominant, recessive, haploid, diploid, sexual, asexual, variation)	**Biology** Explain one advantage and one disadvantage to sexual and asexual reproduction (4 marks)
	Chemistry Bonding – Ionic and Covalent	**Chemistry** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=965~3H~rBTXrr https://www.bbc.co.uk/bitesize/guides/zgmpgdm/revision/2	**Chemistry** - Complete this week's Educake. - Complete the factual recall questions and the exam questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards which explain the difference between ionic, covalent and metallic bonding	**Chemistry** Describe the difference between an ionic and covalent bond (4 marks)
	Physics Energy Transfers	**Physics** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=982~3G~R0EoHp https://www.bbc.co.uk/bitesize/guides/zpgtjty/revision/1 Kinetic energy: GCSE Physics - Kinetic Energy #2 - YouTube GPE: GCSE Physics - Gravity, Weight and GPE #3 (youtube.com)	**Physics** - Complete this week's Educake. - Answer exam questions and factual recall questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards to describe the different ways that energy can be stored and the different ways that energy can be transferred.	**Physics** Explain what the main energy transfer for an apple is falling from a tree (3 marks)

Week 3 **13th May**	**Biology** Health and Disease	**Biology** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1131~4g~eQSCeWNB GCSE Biology - How do Pregnancy Tests Work? #41 (youtube.com) https://www.bbc.co.uk/bitesize/guides/z83qfcw/revision/1	**Biology** - Complete this week's Educake. - Complete Exam questions in video (From 30 minutes onwards) Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create a revision card which shows how antibiotics work– Include pictures and key words	**Biology** Colistin is an antibiotic used to treat infections in the bloodstream. Some bacteria are resistant to Colistin. Explain how these bacteria have become resistant to Colistin. (4 marks) Explain how monoclonal antibodies have revolutionised the diagnosis of pregnancy.
	Chemistry Electrolysis	**Chemistry** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1241~4i~hewEA8j7 (0-9 minutes, 23minutes – 34 minutes) https://www.bbc.co.uk/bitesize/guides/zgn8b82/revision/2	**Chemistry** - Complete this week's Educake. - Complete the factual recall questions in video (23-34 minutes) Make sure you pause the video before the answers are displayed and then go back and mark your work - Create revision cards/flashcards which define the key words (Cation, Anion, Oxidation, Reduction, Electrolysis, Cathode, Anode, Electrolyte, Electrode)	**Chemistry** Impure copper can be purified using electrolysis. The impure copper is used as the anode. A pure copper cathode is used. The electrodes are placed in copper sulfate solution. A direct electric current is passed through the solution. Describe and explain what is seen when this apparatus is used to purify a piece of impure copper. (6 marks)
	Physics Electromagnetic spectrum	**Physics** https://bridgwatercollegetrust.planetestream.com/View.aspx?id=1349~4r~SzdzPBf3 https://www.bbc.co.uk/bitesize/guides/z32f4qt/revision/1 Ripple tank:	**Physics** - Complete this week's Educake. - Answer exam questions and factual recall questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards to describe the difference parts to the electromagnetic spectrum	**Physics** The picture shows a woman checking that a banknote is genuine. She is using a lamp which emits a radiation which is part of the electromagnetic spectrum. Explain how **two** different electromagnetic radiations enable the woman to check the banknote. (3 marks)

		Pearson Edexcel (9-1) Combined Science and GCSE Physics – Investigating waves in solids and liquids (youtube.com)		
Week 4 20th May	**Biology** Cells and control	**Biology** UKEN SALSAMACHA3 VIDEO 169AR 15s MULTI ARDRP NA EDU WM AMXD0217421H PRE (youtube.com) https://youtu.be/RHyZVmbiA78 https://youtu.be/9SGAicn9rXY https://youtu.be/9SGAicn9rXY	**Biology** - Complete this week's Educake. - Work through the flash card questions: - Flashcards - Topics 2.1 - 2.9 Cell Division and Growth - Edexcel Biology GCSE - PMT (physicsandmathstutor.com) - Flashcards - Topics 2.10B - 2.14 The Nervous System - Edexcel Biology GCSE - PMT (physicsandmathstutor.com) - Flashcards - Topics 2.15B - 2.17B The Eye - Edexcel Biology GCSE - PMT (physicsandmathstutor.com)	**Biology** Describe how the reflex arc responds when a person accidentally touches something extremely hot. (6 marks)
	Chemistry Chromatography	https://youtu.be/TdJ57SQ6GAQ	- Complete this week's Educake. - Complete the exam questions topic 2-Methods of separating and purifying mixtures found here: https://cognitoresources.org/resources/gcse/qsbytopic/chemistry/edexcel	Describe how to carry out chromatography, including the equipment needed, the method and how to analyze the results to obtain an Rf value (6 marks)
	Phys	**Radioactivity:** Radioactivity - GCSE Combined Science - BBC Bitesize GCSE Physics - Alpha, Beta and Gamma Radiation #33 (youtube.com)	- Complete this week's Educake. - Answer exam questions and factual recall questions in the video. Make sure you pause the video before the answers are displayed and then mark your work once you have had a go at the questions. - Create revision cards/flashcards to describe the different types of radiation, their ionizing ability and penetration.	When radioactive sources are stored in boxes in schools, the boxes are always lined with lead. Explain why this is necessary. (4 marks)
Week 5 27th May	**Biology** Natural selection and	**Biology** https://youtu.be/3B4LEssKSLs	**Biology** - Complete this week's Educake. - Work through the flash card questions:	**Biology** Describe the advantage and disadvantages to selective breeding and genetic engineering. (4 marks)

	genetic modification	https://youtu.be/CfTnVx31pr0	- Flashcards - Topics 4.1B - 4.6B Evolution - Edexcel Biology GCSE - PMT (physicsandmathstutor.com) - Flashcards - Topic 4.7 Classification - Edexcel Biology GCSE - PMT (physicsandmathstutor.com) - Flashcards - Topics 4.8 - 4.14 Changing Genes - Edexcel Biology GCSE - PMT (physicsandmathstutor.com)	
	Chemistry Conservation of mass	https://youtu.be/it_fMQu5ivg	- Complete this week's Educake. - Complete the exam questions Topic 1-Calculations involving masses https://cognitoresources.org/resources/gcse/qsbytopic/chemistry/edexcel	n/a
	Phys	**Half-lives** GCSE Physics - Radioactive Decay and Half Life #35 (youtube.com) Half-life - Nuclear radiation - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize	- Complete this week's Educake.	A frozen mammoth body has been found in ice in Norway. The Norwegian government has given you a 1 kg sample of the body. For 1 kg of living mammoth flesh, the activity would be 4000 becquerel (Bq) from carbon-14 decay. Your sample gives a reading of 250 Bq. The half-life of carbon-14 is 5700 years. A) How many half-lives must have passed for the activity to change from 4000 Bq to 250 Bq? b) How long ago did the mammoth die?
Week 6 3rd June	**Biology** Paper 1 overview	**Biology** Cognito - Learn GCSE Maths, Biology, Physics and Chemistry (cognitoedu.org)	- Revisit challenging areas from the last 5 weeks - Complete this week's Educake. - Check educake scores and redo any below 80%	
	Chemistry- Paper 1 overview	https://www.cognitoresources.org/	- Revisit challenging areas from last 5 weeks, - Check educake scores and redo any below 80%	
	Physics- Paper 1 overview	https://www.cognitoresources.org/	- Revisit challenging areas from last 5 weeks, - Check educake scores and redo any below 80%	

Triple Content Only: Look at the below links for support with additional Triple Only content

Biology

The eye and the brain -

https://www.bbc.co.uk/bitesize/guides/zpkhcj6/revision/7

https://www.bbc.co.uk/bitesize/guides/zpkhcj6/revision/4

Antibiotics Core practical -

https://www.bbc.co.uk/bitesize/guides/zyxg7p3/revision/11

Protein synthesis -

https://www.bbc.co.uk/bitesize/guides/z3mbqhv/revision/6

Chemistry

Titrations -

https://www.bbc.co.uk/bitesize/guides/zg9rxfr/revision/3

Physics

Fission - GCSE physics questions - Nuclear fission and fusion GCSE physics revision - BBC Bitesize