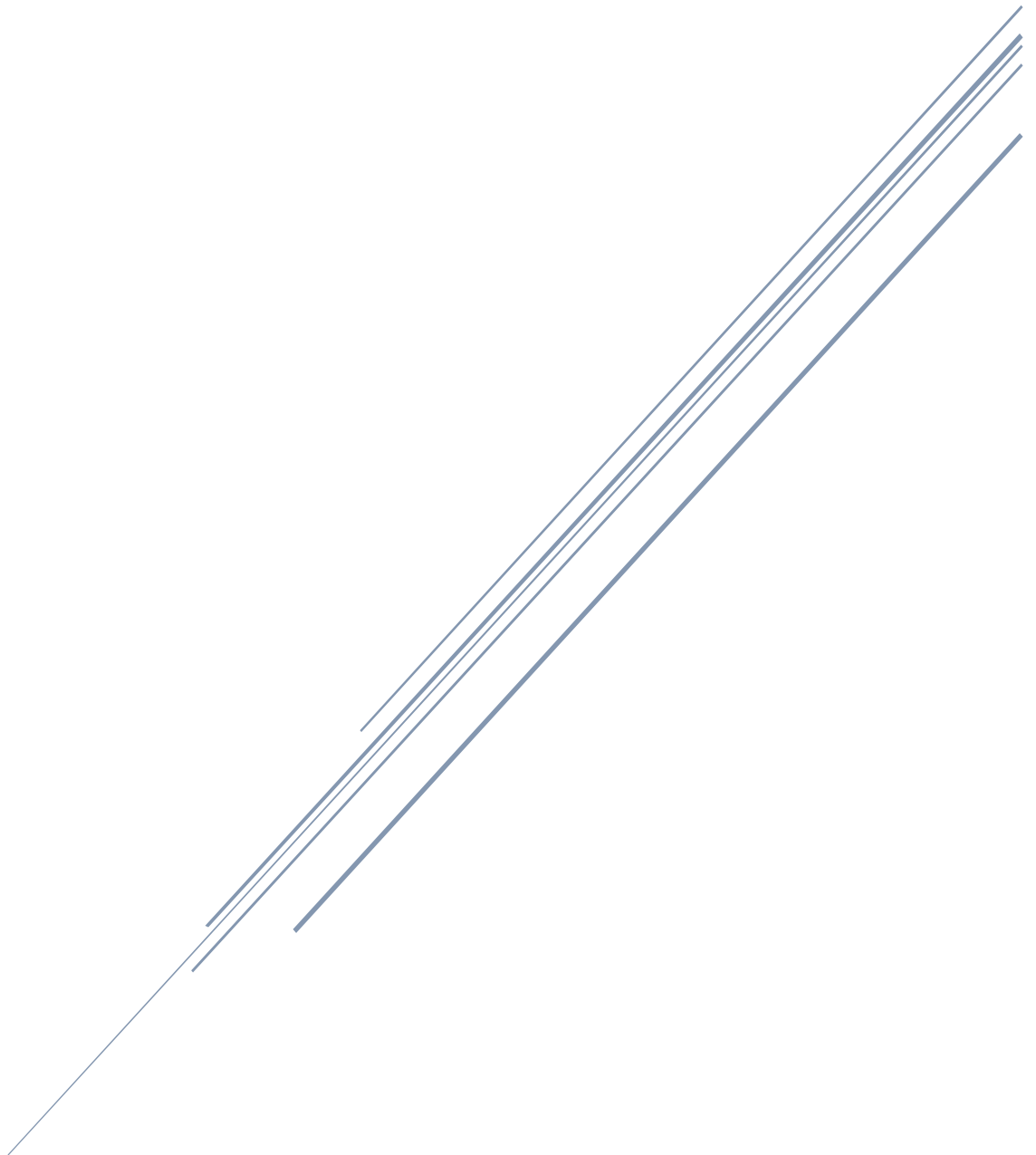


# SUMMER A LEVEL PREP WORK

Westcliff High School for Boys



WHSB Sixth Form  
July 2022

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## Art

Please use the PowerPoint shared to use as inspiration to complete your journal.

Key Skills to develop and refine	To develop and refine your observation drawing skills by looking more closely at things around you that you see every day and to explore skills in creating drawings from imagination.
1.	Create a visual art journal that reflects aspects of your life and personality in a small A5 sketchbook or altered book. Use a combination of drawings, paintings, and text/words to illustrate the suggested themes using various materials, techniques, and processes.
2.	To begin with, you will need a sketchbook. You would have made one in the taster session, but if you are using a ready-made sketchbook, try to use one that is no bigger than A5 to create your journal as this, is a good size. It is also just as easy to make your own - look at some of the examples for ideas. Use whatever you have available at home. Check out the links and look on YouTube for ideas linked to handmade artist sketchbooks.
3.	Each double page will have a theme (we have given you 30 to start with) which should take you up to at least the Summer term. You can draw from direct observation, use your photos, or find images on the internet as inspiration. Look at the slides below with artists who use sketchbooks and journals. You can add more pages and continue it over the summer, ready to bring back in September.

## Biology

Key Skills to develop and refine	<p>To gain an understanding of biological theory in several key fields</p> <p>To appreciate how our understanding of biology has changed over time with the contribution of new research</p> <p>How a greater understanding of biology provides benefits to humanity and the environment</p>
1. Visit the Natural History Museum online	<p>The Natural History Museum website contains many articles and videos detailing the story of human evolution. The information provided ranges from material on Neanderthals to the recent discovery of fossil evidence.</p> <p><a href="https://www.nhm.ac.uk/discover/human-evolution.html">https://www.nhm.ac.uk/discover/human-evolution.html</a></p>
2. Read a book	<p>Genome by Matt Ridley.</p> <p>This is an excellent book, with each chapter describing a newly discovered gene from the 23 pairs of human chromosomes.</p>
3. Watch a lecture	<p>Prof. Steve Jones: 'Nature or Nurture?' on YouTube.</p> <p>Prof. Steve Jones is a scientist, Royal Society Fellow, and a world-leading expert in genetics. He won the Royal Society Michael Faraday Prize for his numerous wide-ranging contributions to the public understanding of science in areas such as human evolution and variation and genetic manipulation. In this lecture on YouTube, he uses exciting examples to answer one of the biggest questions in science: nature or nurture?</p> <p><a href="https://www.youtube.com/watch?v=1ksP34GYwbY">https://www.youtube.com/watch?v=1ksP34GYwbY</a></p>
4. Watch a documentary	<p>Royal Institution Christmas Lectures 2021 - The Invisible Enemy on BBC iPlayer</p> <p>Professor Jonathan Van-Tam dives into the microworld of viruses, revealing how these invisible invaders can infect our bodies and how a revolution in testing may transform medicine forever.</p> <p><a href="https://www.bbc.co.uk/iplayer/episode/m0012tzd/royal-institution-christmas-lectures-2021-1-the-invisible-enemy">https://www.bbc.co.uk/iplayer/episode/m0012tzd/royal-institution-christmas-lectures-2021-1-the-invisible-enemy</a></p>
5. Watch a video podcast.	<p>Dr Craig Venter, known throughout the scientific world for his involvement in the sequence the human genome, presents a TEDTalks video podcast on his recent involvement in creating synthetic life which can produce fuels, make medicines, and combat global warming.</p> <p><a href="https://www.youtube.com/watch?v=QHlocNOHd7A">https://www.youtube.com/watch?v=QHlocNOHd7A</a></p>

<p>6. Complete a biology related FutureLearn course</p>	<p>FutureLearn is a government-funded Open University project that connects learners to short online university courses, some of which can be sampled for free. The course we have provided a link to is about the power of genomics to understand the COVID-19 pandemic. Students will learn key concepts in viral genomics, how they can be applied to the COVID-19 pandemic, and how they can help us prepare for future pandemics.</p> <p><a href="https://www.futurelearn.com/courses/genomics-covid-19">https://www.futurelearn.com/courses/genomics-covid-19</a></p>
<p><i>Compulsory task</i></p>	<p>You must complete 4 of the 6 options listed above and write a 400-word commentary on each. In September, you will be requested to submit your work by your teacher.</p>

## Computer Science

<p>Key Skills to develop and refine</p>	<p>An ability to spot and correct a range of Syntax and Logic Errors in Python code</p> <p>To create algorithms in Python that can solve simple problems, including common mathematical solutions.</p> <p>Know your core GCSE Algorithms and be able to write them in Python, in particular Linear Search, Bubble Sort, Insertion Sort and Binary Search.</p> <p>Be confident with decimal to binary conversions and aware of more complex representations of negative numbers and decimal numbers.</p> <p>Have a broader knowledge of the social implications of Computer Science on wider society.</p> <p>Have an awareness of how Computers have developed over the last 100 years.</p>
<p>1. Visit a Museum with Computers exhibits</p>	<p>There are many options here, the most obvious being the National Science Museum in London. They have exhibits of some of Babbage's original designs for mechanical computers, a large section dedicated to the development of electronic communication and a good range of early computers.</p> <p><a href="https://www.sciencemuseum.org.uk/">https://www.sciencemuseum.org.uk/</a></p> <p>The next big option is Bletchley park, famous for the code breaking work during the second world war and development of the first general purpose electronic computer. The park is a wonderful history and mathematics trip but if you go towards the back of the site there is a second museum 'The National Museum of Computing' with many of the earliest computers and a fun exhibit of old, working games consoles.</p> <p><a href="https://bletchleypark.org.uk/">https://bletchleypark.org.uk/</a></p> <p>If you are in the Cambridge area, hidden away at the back of an industrial site is another hidden gem of a museum, 'Centre for Computing History'. This is a relatively large single floor museum with lots of different computers ranging from some early examples of super computers to modern day machines with a lot of machines from in-between. I particularly like the numerous examples of machines that ran programs stored on rolls of paper punched with holes representing ASCII.</p>

	<a href="http://www.computinghistory.org.uk/">http://www.computinghistory.org.uk/</a>
2. Play a game	<p>Arguably the best way to work on your basic binary conversion is to practice lots of calculations. Luckily there is a surprisingly addictive game for this, the Cisco Binary Game. Sometimes called the Tetris of Network Engineers the game was originally developed to help trainee network engineers practice their 8-bit binary conversions as used when representing IPv4 addresses. The game is great fun.</p> <p><a href="https://learningnetwork.cisco.com/s/binary-game">https://learningnetwork.cisco.com/s/binary-game</a></p> <p>(it is easy to google the link)</p> <p>Another game I enjoy is Terminus by MIT, this game lets you practice navigating a file space using only a command line interface.</p> <p><a href="http://web.mit.edu/mprat/Public/web/Terminus/Web/main.html">http://web.mit.edu/mprat/Public/web/Terminus/Web/main.html</a></p> <p>(for a shorter link try <a href="https://fuzy.uk/AMnYKt">https://fuzy.uk/AMnYKt</a>)</p>
3. YouTube can be productive	<p>There are many excellent resources for revising Computer Science on YouTube but probably the most consistent and best suited to the British education system are those produced by Craig and Dave. If there was any topics, you were unsure of from GCSE you should review the relevant video for the GCSE J277 spec. If you are looking forward, then the A-Level H446 Videos are excellent. I would recommend them for the key algorithms and as a first introduction to Floating Point numbers and 2's Complement, but all the videos are useful.</p> <p><a href="https://www.youtube.com/channel/UC0HzEBLIJxlrwBAHJ5S9JQg">https://www.youtube.com/channel/UC0HzEBLIJxlrwBAHJ5S9JQg</a></p> <p>(Craig and Dave)</p> <p>(for a shorter link try <a href="https://fuzy.uk/Aa3wdt">https://fuzy.uk/Aa3wdt</a>)</p>
4. Read a book	<p>This is very much down to personal preference I would recommend the Asimov robots series of books, though written many decades ago the concepts of robots and artificial intelligence and how they will impact on society are increasingly relevant to today.</p>
5. Complete some coding tasks	<p>In preparation for the programming work, you will undertake in year 12 we have set a few warm-ups coding challenges for you to try over the summer. We are very aware that different schools have taught very different levels of coding at GCSE so if your coding</p>

	<p>experience has been limited or if you are new to the Python programming language, please use these assignments to help you improve</p> <p>Our coding work is done in an online environment called replit, you will first need to create an account in replit, please use a name that is recognisable to us. Once you have created your account, log in to it and then click the link below to join the class on replit.</p> <p><a href="https://replit.com/">https://replit.com/</a> Join the course using the following link</p> <p><a href="https://fuzy.uk/4HyLxt">https://fuzy.uk/4HyLxt</a></p> <p>You will then see several assignments in the replit class for you to work on, most of them should be quick to complete. There are input/output tests in replit (click on the tick icon to see them and then run them). Unfortunately, the difference engine in replit is not very good, so even if the test reports “Failed” look at the expected output and your actual output to see if the numbers agree.</p> <p>When you complete an assignment, or if you need help, please submit your assignment. I will provide feedback inside replit over the summer (although due to holidays, I will only look a few times, so please do not expect rapid feedback, the first two weeks and the last week of the holiday are when I shall be checking for feedback requests).</p> <p>The assignments are ordered from the simplest to the slightly more challenging, so work your way through them in order. We will spend the first week or two of term on coding and individual help will be given in those lessons and at lunchtime sessions.</p> <p>Other activities can be found at the following</p> <p><a href="https://codingbat.com/python">https://codingbat.com/python</a></p> <p><a href="https://projecteuler.net/">https://projecteuler.net/</a></p>
<p>6. Watch a film / documentary</p>	<p>There aren't many realistic Computer Science movies but for those who enjoy a historical thriller the imitation game is an excellent and relatively accurate telling of the development of the Bombe at</p>



	<p>Bletchley Park, perhaps combine it with a visit to the park? The film is currently available on Netflix and Amazon Prime.</p> <p>There are several 'history of the development of the Internet' videos on YouTube you might want to try, a reasonable one can be found below but the internet is your oyster.</p> <p>For a BBC documentary on YouTube.</p> <p><a href="https://www.youtube.com/watch?v=T3h1fiOC4AM">https://www.youtube.com/watch?v=T3h1fiOC4AM</a></p>
<p>7. Personal Projects</p>	<p>One common feature we often see in A* A-level students is tendency to have several personal side coding projects. This ranges from single big projects that they have worked on for years to a range of relatively small challenges. Your final year project will take the form of code that you develop independently so this would be good practice. The options are almost limitless, I have seen everything from working through various sorting algorithms to making a full virtual reality engine. If you have a task in mind working on it for fun will require you to solve a variety of problems and develop your coding skills. You don't need to limit yourself to Python either, why not try making a 3d game using Unity and C#?</p>
<p><i>Compulsory task</i></p>	<p>The only thing we require you to do is to do some coding. I would strongly recommend the other activities, but coding is the main required task. I expect everyone to try and access the repl.it course but if there are issues with joining the course, please contact Mr Steel via email to try and resolve them. Alternative evidence of coding will be accepted if you cannot access the course.</p>

## Economics

<p>Key Skills to develop and refine</p>	<p>An understanding of economic concepts and theories through a critical consideration of current economic issues, problems and institutions that affect everyday life</p> <p>How to apply economic concepts and theories in a range of contexts and to appreciate their value and limitations in explaining real-world phenomena</p> <p>How to analyse, explain and evaluate the strengths and weaknesses of the market economy and the role of government within it</p> <p>How to participate effectively in society as a citizen, producer, and consumer</p> <p>How to develop your skills in written, visual, and symbolic communication and analysis using statistics and basic economic models</p> <p>How to think analytically about the choices facing any organisation or individual.</p>
<p>1. Visit the Bank of England Museum and explore their website</p>	<p>The 'Old Lady' was founded in 1694 and is one of the oldest central banks in the world. The museum is open to the public and just a short walk away from Bank tube station. Exhibits focus on money (a small part of your course), inflation, monetary policy (significant parts of both A level and IB courses) and financial markets regulation (A level only). In addition, the Bank of England has an excellent site explaining everything from the role of central banks to inflation targeting.</p> <p><a href="https://www.bankofengland.co.uk/education">https://www.bankofengland.co.uk/education</a></p>
<p>2. Keep an Independent Study Folder</p>	<p>This is something you will need to do as part of your study of A Level Economics.</p> <p>Typical content would include a copy of the specification which can be found at: <a href="#">Edexcel AS and A level Economics A 2015   Pearson qualifications</a></p> <p>Other content should include a brief note on articles you have read. BBC News has a lot of Economics content, which provides</p>

	<p>invaluable application points for A Level Economics. Here's an example:</p> <p><a href="https://www.bbc.co.uk/news/business-61891649">https://www.bbc.co.uk/news/business-61891649</a></p> <p>Exam papers may be printed with questions attempted and annotated using mark schemes and Examiner Reports.</p>
3. Read a book	<p>Tim Harford's 'The Undercover Economist' is an excellent introductory text available in all good bookshops and, most likely, your local library. Also recommended, is Kate Raworth's 'Doughnut Economics'.</p> <p>Dambisa Moyo's Dead Aid is also an excellent choice.</p>
4. Watch a film / documentary	<p>The Big Short was a big budget release exploring the explosion of the US subprime mortgage market and the subsequent global financial crisis. Inside Job, narrated by Matt Damon, takes a documentary-style approach to the same topic. Both illustrate the issues surrounding government intervention, market failure, and the problem of asymmetric information. There are other excellent documentaries, many available to watch for free on YouTube.</p> <p><a href="http://topdocumentaryfilms.com/category/economics/">http://topdocumentaryfilms.com/category/economics/</a></p>
5. Listen to Radio 4	<p>If you want to be amongst the best-informed Economists, you will make a habit of listening to R4 daily either live or downloaded from BBC Sounds.</p> <p>The Department recommends you listen to PM each weekday evening at 5.</p> <p><a href="https://www.bbc.co.uk/sounds/brand/b006qskw">https://www.bbc.co.uk/sounds/brand/b006qskw</a></p>
Compulsory Task	<p>The Independent Study Folder is an essential part of your learning process and therefore should be started before lessons commence.</p>

## English Literature

1. Comprehension	Do you understand the plot of the main texts you will be studying?
2. Inference	For example, can you infer the deeper meanings behind the presentation of characters such as Othello and Iago? Gatsby and Myrtle?
<i>Compulsory task</i>	<p>Read Othello: <a href="https://www.sparknotes.com/nofear/shakespeare/othello/">https://www.sparknotes.com/nofear/shakespeare/othello/</a></p> <p>Type Othello into YouTube and watch at least 5 clips of various scenes and debates around the text. Make notes.</p> <p>Read <i>The Great Gatsby</i>: <a href="https://www.gutenberg.org/files/64317/64317-h/64317-h.htm">https://www.gutenberg.org/files/64317/64317-h/64317-h.htm</a></p> <p>Watch a film version if you can.</p>

## French

Key Skills to develop and refine	<p>Revision of grammar</p> <p>The ability to read longer texts</p> <p>Greater awareness of French culture and society</p> <p>Exploring your own interests such as music, sport, history, politics through research</p> <p>French for pleasure through music, film, and television</p>
1. The regions of France	Read the information in the regions of France booklet and complete the activities throughout the document. There is a wealth of information there and we hope you will be inspired to delve deeper into some of the aspects of the regions that you find most interesting.
2. Literature	Read some literature.
3. The Arts	For artists, musicians, and future architects, why not find out about the cultural heritage of France and the French-speaking world? Research famous artists, paintings, galleries, delve deeper into music, find the lyrics to the songs that appeal to you, or go on virtual tours of buildings you may discover.
4. Politics and current affairs	If you are interested in politics and current affairs, find out about French political parties.
5. Verbs and tenses	Brush up on verbs and tenses.
<i>Compulsory task</i>	Complete the booklet.

## Geography

<p>Key Skills to develop and refine</p>	<p>There are many aspects of knowledge, understanding and skills that are required to be an excellent geographer at Sixth Form level and many of these are often honed outside of the classroom. For example, geographers need to be able to use evidence and examples to support the conclusions that they come to about geographical issues in exam answers. In addition, effective geographers should develop a 'sense of place' so that they can explain what makes any location unique or special.</p> <p>Good geographers also continually look at the world around them and apply what they see to the classroom setting. For example, as you go about exercising and walking you may see urban land use change, quality of life inequalities in urban areas and the interaction between people and their physical environment. You might also see the concept of microclimate in action: why is it raining in Shoebury but dry in Great Wakering?</p> <p>The tasks below are designed to encourage you to examine the wider world around you, to enjoy seeing geography at first hand and to help you develop geographical research skills whilst you are not in school to help prepare for studying Geography in the Sixth Form. They are not compulsory but doing some of them will broaden your experience and knowledge as geographers. <u>The suggestions are particularly relevant to any of you intending to study geography at university – think ahead to your UCAS applications.</u></p>
<p>Option 1 Books that you could read:</p>	<p><i>Landscapes and Geomorphology: A Very Short Introduction</i> by Andrew Goudie; write 400+ words to explain the science behind landscape formation.</p> <p>or</p> <p><i>Geography: Ideas in Profile</i> by Danny Dorling and Carl Lee; write 400+ words to explain the importance of studying geography in our modern world</p> <p>or</p> <p><i>The Bottom Billion</i> by Paul Collier; write 400+ words to explain why the world's poorest countries are failing,</p> <p>or</p> <p><i>Dead Aid</i> by Dambisa Moyo; write 400+ words to explain the argument that aid is holding back Africa's development</p>

	<p><i>or</i></p> <p><i>Prisoners of Geography</i> by Tim Marshall: write 400+ words to explain how geopolitics is more important than ever.</p>
<p>Option 2</p> <p>Museums that you could visit:</p>	<p>The Museum of London Docklands (London, E14 4AL) is a museum of the history and geographical development of London that includes exhibitions on the redevelopment of the Docklands area. [Whilst there, you could visit the Crossrail Place Roof Garden E14 5AB and see a range of exotic plants from around the world]</p> <p>The Natural History Museum (London, SW7 5BD) houses a world-class collection of artefacts such as rare rocks and gems as well as permanent displays on tectonic processes, resource use and geomorphological processes.</p>
<p>Option 3</p> <p>Researching contemporary debates:</p>	<p>Was the result of the EU remain / leave referendum right for Britain?</p> <p><i>or</i></p> <p>How should extreme poverty be tackled: more aid or fairer trade?</p> <p><i>or</i></p> <p>What are the best ways to tackle global warming?</p> <p><i>or</i></p> <p>How many people can the world support?</p> <p><i>or</i></p> <p>How can we reduce plastic pollution in the oceans?</p> <p><i>or</i></p> <p>Use the BBC website as a starting point to research the issue of fracking in the UK and the world more generally.</p> <p><i>or</i></p> <p>Research the geopolitical tensions over the South China Sea between China and the countries of Asia Pacific.</p> <p><i>or</i></p> <p>How important is geographical epidemiology in the fight against global pandemics?</p>
<p>Option 4</p> <p>Visiting an area of physical geography interest:</p>	<p>Visit a coastal, riverine, or estuarine location and identify the ways that people interact with the natural environment - present this visually as a video or a photo montage display board.</p> <p><i>or</i></p> <p>Visit a city and identify how human activity has modified the physical environment and the processes taking place (e.g., the impact on run-</p>

	<p>off, wildlife diversity and climate etc) – present this using presentation software e.g., Prezi.</p> <p><i>or</i></p> <p>Visit an area that has been previously glaciated (e.g., Snowdonia, the Lake District, the Peak District National Park) and record the glacial landform features that you see photographically using photo presentation software e.g., Photosnack.com.</p>
Option 5 Studying your local geography:	By looking at your local home area, consider this statement: human geography is more influential in determining the character of a place than physical geography. How could you find evidence to support your opinion? What research or fieldwork techniques would be appropriate?
Option 6 Watching the world	By watching documentaries and videos on YouTube, enjoy the wonder of the natural world. From the Grand Canyon to Antarctica, to the depths of the oceans, to the peaks of mountains, and to the plants that somehow grow through the cracks of the pavement and on buildings, consider this statement: “physical geography is worthy of more study than human geography”. How could you find evidence to support your opinion? What research or fieldwork techniques would be appropriate?
	<p>Considering options 2, 3, 5 and 6, you could write a 400+ word assessment considering:</p> <p>What drew you to this option?</p> <p>What did you enjoy about carrying out this option?</p> <p>Geographically, what did you learn from this activity?</p> <p>or you could make a video that you share with everyone on Microsoft Teams.</p>
Option 7 Reflecting on your geographical learning	<p>One of the most important skills we can develop to make progress is the skill of reflecting. It might seem like an obvious thing to do but we don't always take the time to reflect on what we have done to figure out how to improve in the future.</p> <p>For this option, you could reflect on your study of geography, the skills you have developed and things you could still work on. Answer the following questions honestly:</p> <p>Overall, how much do you think you have achieved through your study of geography?</p> <p>List three things you accomplished over your two years of studying the subject at GCSE.</p>



	<p>Which skills have you developed throughout your study of the subject?</p> <p>Which three things could you still make improvements on?</p> <p>What have you enjoyed most and least about your study of the subject?</p> <p>Is there anything you wish you had done throughout your studies to help you progress that you didn't do at the time?</p> <p>List three ways your study of geography can continue to help you in the future even if you don't plan to carry on studying the subject at A Level.</p>
<p>Option 8</p> <p>Learning to write a good essay at Sixth Form</p>	<p>Writing a good essay is key to getting good grades in many subjects at Sixth Form level. Throughout your time studying geography you have been told to develop points, use more evidence or examples, and state an evidence-based opinion.</p> <p>The higher you go in education the more elaboration you need to include. Below are two links to essay writing techniques in geography. Read the advice and then write answer to one of the questions in Option 3 above with the aim of achieving 20/20 marks:</p> <p><a href="https://www.transkills.admin.cam.ac.uk/resources/geography/essay-writing-human-geography">https://www.transkills.admin.cam.ac.uk/resources/geography/essay-writing-human-geography</a></p> <p><a href="https://www.transkills.admin.cam.ac.uk/resources-students/geography/essay-writing-physical-geography">https://www.transkills.admin.cam.ac.uk/resources-students/geography/essay-writing-physical-geography</a></p>
<p>Option 9</p> <p>Different perspectives on the world</p>	<p>Access these sites and watch the geographical videos, study the infographics, or read the articles to broaden your view of the world:</p> <p>Open University site on geography and environmental science</p> <p><a href="https://www.open.edu/openlearn/society-politics-law/geography/geography-matters-collection">https://www.open.edu/openlearn/society-politics-law/geography/geography-matters-collection</a></p> <p>Visual Capitalist site drawing on surveys of people around the globe</p> <p><a href="https://www.visualcapitalist.com/globalization-by-country/">https://www.visualcapitalist.com/globalization-by-country/</a></p> <p>Leonardo DiCaprio's film on climate change</p> <p><a href="https://www.beforetheflood.com/">https://www.beforetheflood.com/</a></p>

## Geology

<p>Key Skills to develop and refine</p>	<p>use theories, models, and ideas to develop geological explanations</p> <p>use knowledge and understanding to pose scientific questions, define geological problems, present scientific arguments, and geological ideas</p> <p>use appropriate methodology, including information and communication technology (ICT), to answer geological questions and solve geological problems</p> <p>carry out fieldwork, experimental and investigative activities in a range of contexts to include the collection, compilation, and analysis of Earth science data from the field and subsurface, and appropriate risk management</p> <p>manipulate and extrapolate these sometimes-incomplete data sets in both two and three-dimensions</p> <p>evaluate methodology, evidence and partial data sets, and resolve conflicting evidence</p> <p>communicate information and ideas in appropriate ways (including geological maps and cross-sections) using appropriate terminology, SI units and their prefixes and the ability to express in standard form</p> <p>know that scientific knowledge and understanding develops over time, consider applications and implications of science in geology, and evaluate their associated benefits and risks, and</p> <p>evaluate the role of geology within the scientific community in validating new knowledge and ensuring integrity.</p>
<p>1. Visit an area of geological interest near to the school</p>	<p>In the Hadleigh Country Park, there is evidence of a 50-million-year-old delta in an old very fine-grained sandstone quarry face that was used brickmaking. It is easily accessible with an information board explaining the geological setting. The fine yellow sandstone was part of a river delta at the edge of shallow sea when Essex had a tropical climate.</p> <p><a href="https://hadleighcountrypark.co.uk/learn-more-about-hadleigh-country-park/#:~:text=Situated%20only%20a%20short%20distance,Sand%20on%20the%20highest%20ground.">https://hadleighcountrypark.co.uk/learn-more-about-hadleigh-country-park/#:~:text=Situated%20only%20a%20short%20distance,Sand%20on%20the%20highest%20ground.</a></p>

2. Listen to some podcasts	<p>In our time podcasts with Melvyn Bragg has many geological podcasts which will certainly help your understanding of the course:</p> <p>Geological evolution of Britain - <a href="https://www.bbc.co.uk/programmes/b00n8t48">https://www.bbc.co.uk/programmes/b00n8t48</a></p> <p>The KT boundary extinction - <a href="https://www.bbc.co.uk/programmes/p003k9d0">https://www.bbc.co.uk/programmes/p003k9d0</a></p> <p>Seismology <a href="https://www.bbc.co.uk/programmes/m00154gh">https://www.bbc.co.uk/programmes/m00154gh</a></p> <p>Cephalopods <a href="https://www.bbc.co.uk/programmes/b09pjgrn">https://www.bbc.co.uk/programmes/b09pjgrn</a></p> <p>The Palaeocene-Eocene Thermal Maximum <a href="https://www.bbc.co.uk/programmes/b08hpmmf">https://www.bbc.co.uk/programmes/b08hpmmf</a></p> <p>The Earth's core <a href="https://www.bbc.co.uk/programmes/b05s3gyv">https://www.bbc.co.uk/programmes/b05s3gyv</a></p> <p>Catastrophism <a href="https://www.bbc.co.uk/programmes/b03s9tlz">https://www.bbc.co.uk/programmes/b03s9tlz</a></p> <p>Ediacara biota <a href="https://www.bbc.co.uk/programmes/b00lh2s3">https://www.bbc.co.uk/programmes/b00lh2s3</a></p> <p>Asteroids <a href="https://www.bbc.co.uk/programmes/p003k9kh">https://www.bbc.co.uk/programmes/p003k9kh</a></p> <p>Ageing of the Earth <a href="https://www.bbc.co.uk/programmes/p005493g">https://www.bbc.co.uk/programmes/p005493g</a></p> <p>Volcanology <a href="https://www.bbc.co.uk/programmes/p005490h">https://www.bbc.co.uk/programmes/p005490h</a></p> <p>Fossils <a href="https://www.bbc.co.uk/programmes/p00547d3">https://www.bbc.co.uk/programmes/p00547d3</a></p> <p>The Earth's origins <a href="https://www.bbc.co.uk/programmes/p00547hl">https://www.bbc.co.uk/programmes/p00547hl</a></p>
3. Read a book	<p>A Brief History of Earth: Four Billion Years in Eight Chapters by Andrew H. Knoll who delivers a rigorous yet accessible biography of the Earth. Another is Notes from Deep Time: A Journey Through Our Past and Future Worlds.</p> <p>Helen Gordon looks at the past and future, and how geologists forensically analyse evidence.</p>
4. Watch a film / documentary	<p>Dr Iain Stewart has produced some excellent videos on geology. His Men of Rock series (1of 3) is relevant in terms of Deep Time and the Work of James Hutton</p> <p><a href="https://www.youtube.com/watch?v=FYful2uZLmq">https://www.youtube.com/watch?v=FYful2uZLmq</a></p> <p>A five-part documentary series, presented by Tony Robinson, investigates the history of natural disasters, from the planet's beginnings to the present, putting a new perspective on our existence and suggesting that we are the product of catastrophe. The most useful are Episode 3 - Planet of Fire on the Permo-Triassic Extinction where 95% of life on Earth was lost. <a href="https://www.youtube.com/watch?v=00ILddHJKw&amp;t=179s">https://www.youtube.com/watch?v=00ILddHJKw&amp;t=179s</a></p>

	<p>Episode 4 – Asteroid Impact interesting account of the end of the dinosaurs and rise of the mammals. <a href="https://www.youtube.com/watch?v=hqt4US72yec">https://www.youtube.com/watch?v=hqt4US72yec</a></p> <p>David Attenborough and the Tree of Life – evolution and palaeontology <a href="https://www.dailymotion.com/video/xsxbk">https://www.dailymotion.com/video/xsxbk</a></p> <p>Dr Alice Roberts and Last of the Giants. Ice age palaeontology <a href="http://www.documentaryarea.tv/player.php?title=Last%20of%20the%20Giants">http://www.documentaryarea.tv/player.php?title=Last%20of%20the%20Giants</a></p> <p>Dr Iain Stewart – 10 things you didn't know about tsunamis. Iain Stewart journeys across the oceans to explore the most powerful giant waves in history, with ten remarkable stories about tsunamis. <a href="https://www.dailymotion.com/video/x3bcm0g">https://www.dailymotion.com/video/x3bcm0g</a></p>
<i>Compulsory task</i>	<p>You need to complete 2 of the 7 options listed above and write a 400-word commentary using the following questions as prompts. Your work will be submitted via Google Classroom, and you should expect to discuss your preparation during an early Geology lesson.</p> <p>What led you to choose the task you did? Consider the factors that shaped your decision.</p> <p>What did you enjoy about it?</p> <p>What would you specifically recommend to others?</p> <p>What did you learn about the topic?</p> <p>What questions were left unanswered? Was there something you would like to explore further?</p>

## German

<p>Key Skills to develop and refine</p>	<p>Revision of grammar</p> <p>The ability to read longer texts</p> <p>Greater awareness of German culture and society</p> <p>Exploring your own interests such as music, sport, history, politics through research</p> <p>German for pleasure through music, film, and television</p>
<p>1. Exploring the regions of Germany, Switzerland, and Austria</p>	<p>Research on the internet the three German-speaking countries. Focus on:</p> <p>Regions (Bundesländer (Germany, Austria), Kantons (Switzerland))</p> <p>Landscape</p> <p>Capital cities</p> <p>Industry</p> <p>Culture</p>
<p>2. Literature</p>	<p>Read some literature. Look up summaries of the following titles and choose one to read:</p> <p><i>Die Verwandlung</i>, Franz Kafka</p> <p><i>Vermessung der Welt</i>, Daniel Kehlmann</p> <p><i>Er ist weider da</i>, Timor Vermes</p> <p><i>Homo Faber</i>, Max Frisch</p> <p><i>Der Richter und sein Henker</i>, Friedrich Dürrenmatt</p> <p><i>Der Vorleser</i>, Bernhardt Schlink</p> <p><i>Das dicke Kind</i>, Marie Louise Kaschnitz</p> <p>(Short stories can be found on the internet. An e-book may be free or cost less than the paper copy.)</p>
<p>3. History</p>	<p>If you enjoy history, there is much to explore. Here are some suggestions:</p> <p><i>Medieval Germany</i></p> <p><i>The Protestant Reformation (Martin Luther)</i></p> <p><i>Prussia, its kings, and the Prussian wars</i></p> <p><i>Napoleonic Wars</i></p> <p><i>The Industrial Revolution</i></p>

	<p><i>World War I and the treaty of Versailles</i></p> <p><i>The Weimar Republic</i></p> <p><i>The Third Reich and World War II</i></p> <p><i>Post War Germany</i></p> <p><i>After the reunification up to present</i></p> <p><i>Bismarck</i></p> <p><i>Sophie Scholl and Die Weiße Rose</i></p>
4. The Arts	<p>For artists, musicians, and future architects, why not find out about the cultural heritage of Germany and the German-speaking world? Research famous artists, paintings, galleries, delve deeper into music, find the lyrics to the songs that appeal to you, or go on virtual tours of buildings you may discover. <i>Albrecht Dürer, Caspar David Friedrich, Ludwig Kirchner, Emil Nolde, Franz Marc, Hundertwasser, Anselm Kiefer, and Bauhaus</i> are just some names to start.</p>
5. Politics and current affairs	<p>If you are interested in politics and current affairs, find out about German political parties, Angela Merkel and her Immigration Policies, the rise of the AFD and the current government.</p>
6. Grammar	<p>Brush up on your Grammar, especially verbs and tenses using the grammar exercises in the induction booklet and <a href="http://www.german.net/verbs/conjugation/">www.german.net/verbs/conjugation/</a>, <a href="http://www.conjuguemos.com">www.conjuguemos.com</a> or <a href="http://www.languagesonline.org.uk">www.languagesonline.org.uk</a></p>
7. Film and TV	<p>Watch a German film or series on streaming platforms (e.g., <i>Dark, Deutschland '83</i>) and find out more about the cast, crew, locations, its popularity in the German-speaking world and, if it is based on real life events, how true to the facts the writers and producers decided to make it.</p>
<i>Compulsory task</i>	<p>1 Choose a city or region of a German-speaking country. This can take the form of a PowerPoint presentation, a Word document, a hand-written piece of work, or some other suitable format to present the research.</p> <p>The content should be in German, in your own words, and it should be illustrated. Aim for approx. 2 min in length. Put your own twist on the research to tell us something about yourself, e.g., German-speaking football teams, history, food, vocabulary, landmarks etc.</p> <p>2 Complete the Grammar exercises in the Induction booklet.</p>

## History

Key Skills to develop and refine	Research, analysis, and evaluative skills
1.	Read 'A People's Tragedy' by Orlando Figes
2.	Read 'Monarchy' by David Starkey
3.	Read 'The Stuart Age' by Barry Coward
4.	Read 'Civil War' by Peter Ackroyd
5.	Read 'A History of Britain' by Simon Schama (volume 2)
6.	Think about what makes a successful ruler and what makes a poor ruler – think about what you have learned about British or Russian History so far and what the story is by 1625 or 1894.
7.	Think about what you have already studied in History and whether there are any universal messages or common themes.
<i>Compulsory task</i>	Go onto the 'Year 12 Historians 2022-24' Teams page and have a good look through any links and messages there. Thumbs up to show you have accessed it and email <a href="mailto:jeffreysb@whsb.essex.sch.uk">jeffreysb@whsb.essex.sch.uk</a> if you have not been added onto this.

## Mathematics & Further Mathematics

Key Skills to develop and refine	<p>The first 4 chapters in the A-level course are a review of GCSE work.</p> <p>We do not study these units again, so you need to arrive in September with secure working knowledge of these topics.</p> <p>The Summer Work booklet contains the notes to refresh your memory and questions with solutions to ensure you have understood it.</p> <p>Below are some extra videos and questions to ensure a fluency of your knowledge when you start.</p>
Section 1.1: Simplifying an expression by collecting like terms	<p><i>Where did we do this?</i> This is Key Stage 3-level Algebra</p> <p><i>Where can I get extra practice?</i> If you need help with this, then this course is not for you.</p>
Section 1.2: The laws of indices	<p><i>Where did we do this?</i> This is Key Stage 3-level algebra</p> <p><i>Where can I get extra practice?</i> If you need help with this, then this course is not for you!</p>
Section 1.3: Expanding an expression	<p><i>Where did we do this?</i> This is Key Stage 3-level algebra</p> <p><i>Where can I get extra practice?</i> If you need help with this, then this course is not for you!</p>
Section 1.4: Factorising an expression	<p><i>Where did we do this?</i> This is Key Stage 3-level algebra</p> <p><i>Where can I get extra practice?</i> If you need help with this, then this course is not for you!</p>
Section 1.5: Factorising a quadratic expression	<p><i>Video Help</i></p> <p><a href="https://www.youtube.com/watch?v=6NldTWcpK1s&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=3">https://www.youtube.com/watch?v=6NldTWcpK1s&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=3</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/factorising-harder.html">https://www.mathsgenie.co.uk/factorising-harder.html</a></p>
Section 1.6: The laws of indices for all rational	<p><i>Video Help</i></p> <p><a href="https://www.youtube.com/watch?v=pUekEPvXWCU&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=1">https://www.youtube.com/watch?v=pUekEPvXWCU&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=1</a></p>



exponents	<p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/4-indices.pdf">https://www.mathsgenie.co.uk/resources/4-indices.pdf</a></p> <p><a href="https://www.mathsgenie.co.uk/resources/6-fractional-and-negative-indices.pdf">https://www.mathsgenie.co.uk/resources/6-fractional-and-negative-indices.pdf</a></p> <p><a href="https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-MEI%2FC1%2520Algebra%2520-%2520Indices%25201%2520QP.pdf">https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-MEI%2FC1%2520Algebra%2520-%2520Indices%25201%2520QP.pdf</a></p> <p><a href="https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-MEI%2FC1%2520Algebra%2520-%2520Indices%25202%2520QP.pdf">https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-MEI%2FC1%2520Algebra%2520-%2520Indices%25202%2520QP.pdf</a></p>
Section 1.7: The use and manipulation of surds	<p><i>Video Help</i></p> <p><a href="https://www.youtube.com/watch?v=D6tGkiAGq2E&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=5">https://www.youtube.com/watch?v=D6tGkiAGq2E&amp;list=PLhfTFUpngHaW6s54XUUZmHJvC57KyT316&amp;index=5</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/7-surds.pdf">https://www.mathsgenie.co.uk/resources/7-surds.pdf</a></p>

Section 2.1: Plotting the graph of quadratic functions	<p><i>Where did we do this?</i> This is Key Stage 3-level algebra</p> <p><i>Where can I get extra practice?</i> If you need help with this, then this course is not for you!</p>
Section 2.2: Solving quadratic equations by factorisation	<p><i>Video Help</i></p> <p><a href="https://www.youtube.com/watch?v=UEYen7bjs0o&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=1">https://www.youtube.com/watch?v=UEYen7bjs0o&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=1</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/5-solving-quadratics-by-factorising.pdf">https://www.mathsgenie.co.uk/resources/5-solving-quadratics-by-factorising.pdf</a></p>
Section 2.3: Completing the square	<p><i>Video Help</i></p> <p><a href="https://www.youtube.com/watch?v=AdWQwPqclc8&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=2">https://www.youtube.com/watch?v=AdWQwPqclc8&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=2</a></p>

	<p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/9-completing-the-square.pdf">https://www.mathsgenie.co.uk/resources/9-completing-the-square.pdf</a></p>
Section 2.4: Solving quadratic equations by completing the square	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=AdWQwPqclc8&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=2">https://www.youtube.com/watch?v=AdWQwPqclc8&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=2</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/as-pure-completing-the-square.pdf">https://www.mathsgenie.co.uk/resources/as-pure-completing-the-square.pdf</a></p> <p><a href="https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-Set-1%2FC1%2520Completing%2520the%2520Square.pdf">https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-Set-1%2FC1%2520Completing%2520the%2520Square.pdf</a></p>
Section 2.5: Solving quadratic equations by using the formula	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=UEYen7bjs0o&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=1">https://www.youtube.com/watch?v=UEYen7bjs0o&amp;list=PLhfTFUpngHaVKopUpsRPsQRMBPiU2kpDQ&amp;index=1</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/7-quadratic-formula.pdf">https://www.mathsgenie.co.uk/resources/7-quadratic-formula.pdf</a></p>
Section 3.1: Solving simultaneous linear equations by elimination	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=FvwkZQ0Ymk0&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=1">https://www.youtube.com/watch?v=FvwkZQ0Ymk0&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=1</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/5-simultaneous-equations.pdf">https://www.mathsgenie.co.uk/resources/5-simultaneous-equations.pdf</a></p>
Section 3.2: Solving simultaneous linear equations by substitution	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=FvwkZQ0Ymk0&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=1">https://www.youtube.com/watch?v=FvwkZQ0Ymk0&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=1</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/5-simultaneous-equations.pdf">https://www.mathsgenie.co.uk/resources/5-simultaneous-equations.pdf</a></p>

Section 3.3: Using substitution when one equation is linear, and the other is quadratic	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=RllqfS9rXQA&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=2">https://www.youtube.com/watch?v=RllqfS9rXQA&amp;list=PLhfTFUpngHaWJ5wPMJo_1CU954NqthqcT&amp;index=2</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/9-quadratic-simultaneous-equations.pdf">https://www.mathsgenie.co.uk/resources/9-quadratic-simultaneous-equations.pdf</a></p> <p><a href="https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-Set-1%2FC1%2520Simultaneous%2520Equations.pdf">https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-Set-1%2FC1%2520Simultaneous%2520Equations.pdf</a></p>
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Section 4.2: Interpreting the graphs of cubic functions	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=sIYwhWn16ko&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=1">https://www.youtube.com/watch?v=sIYwhWn16ko&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=1</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf">https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf</a></p> <p><a href="https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-ME1%2FC1%2520Curve%2520Sketching%2520-%2520Factorising%2520%26%2520Sketching%2520Polynomials%25201%2520QP.pdf">https://www.physicsandmathstutor.com/pdf-pages/?pdf=https%3A%2F%2Fpmt.physicsandmathstutor.com%2Fdownload%2FMaths%2FA-level%2FC1%2FTopic-Qs%2FOCR-ME1%2FC1%2520Curve%2520Sketching%2520-%2520Factorising%2520%26%2520Sketching%2520Polynomials%25201%2520QP.pdf</a></p>
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Section 4.4: Using the intersection points of graphs of functions to solve equations	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=03gyABEr8Zo&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=4">https://www.youtube.com/watch?v=03gyABEr8Zo&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=4</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf">https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf</a></p>
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Section 4.5: The effect of the transformations $f(x + a)$ and $f(x) + a$	<p>Video Help</p> <p><a href="https://www.youtube.com/watch?v=Vd62T4zpGUQ&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=5">https://www.youtube.com/watch?v=Vd62T4zpGUQ&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbzY&amp;index=5</a></p> <p><i>Where can I get extra practice?</i></p> <p><a href="https://www.mathsgenie.co.uk/resources/9-transforming-graphs.pdf">https://www.mathsgenie.co.uk/resources/9-transforming-graphs.pdf</a></p>
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Section 4.6: The effect of the transformati ons $f(ax)$ and $af(x)$	Video Help  <a href="https://www.youtube.com/watch?v=1IPfSPVzKQg&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbpzY&amp;index=6">https://www.youtube.com/watch?v=1IPfSPVzKQg&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbpzY&amp;index=6</a> <i>Where can I get extra practice?</i> <a href="https://www.mathsgenie.co.uk/resources/9-transforming-graphs.pdf">https://www.mathsgenie.co.uk/resources/9-transforming-graphs.pdf</a>
Section 4.7: Performing transformati ons on the sketches of curves	Video Help  <a href="https://www.youtube.com/watch?v=sCfIUfl_gXk&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbpzY&amp;index=7">https://www.youtube.com/watch?v=sCfIUfl_gXk&amp;list=PLhfTFUpngHaXt-XLcnpVQxMA320SqbpzY&amp;index=7</a> <i>Where can I get extra practice?</i> <a href="https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf">https://www.mathsgenie.co.uk/resources/as-pure-sketching-and-transforming-curves.pdf</a>
Practice Examination Style Paper	This will be the same format as the Baseline test you will sit in September.
<i>Compulsory task</i>	Complete all exercises and practice examination style paper from the Summer Work booklet in preparation for a Baseline Test in the first fortnight.

## Music

Key Skills to develop and refine	<p>Understanding of the symphony</p> <p>Understanding of music in the twentieth century</p> <p>Skills of analysis</p> <p>Skills of evaluation</p> <p>Composition skills</p> <p>Aural skills</p>
1. Read a book	<p><i>Listen to This</i> by Alex Ross has several articles on different musical topics.</p> <p>A more substantial read, but more relevant to the course, is <i>The Rest is Noise</i> by the same author, which covers the development of music in the 20<sup>th</sup> century. This is useful for AOSE in particular.</p>
2. Familiarise yourself with the Symphony	<p>Listen to various symphonies such as:</p> <p>Stamitz, <i>Symphony in D</i></p> <p>Haydn, <i>Symphony 101</i></p> <p>Beethoven, <i>Symphony No. 5 in Cm</i></p> <p>Tchaikovsky, <i>Symphony No. 5</i></p> <p>Mahler, <i>Symphony No. 1 'Titan'</i></p> <p>Consider how they differ from one another, and how the changing times may have contributed to these differences.</p>
3. Explore music podcasts	<p>Listen to some music podcasts to explore different styles and theoretical ideas. An example is The Listening Service which can be found on BBC Sounds.</p>
4. Watch informative documentaries	<p>Search for the following videos on YouTube to introduce yourself to topics studied in A Level Music:</p> <p>Howard Goodall – Introduction to the symphony</p> <p>Howard Goodall – a deeper look at the symphony</p> <p>Howard Goodall – Debussy and Impressionism</p>
5. Improve your writing of harmony and chordal texture	<p>Go to <a href="http://www.ALevelMusic.com">www.ALevelMusic.com</a> and use the resources in the “Chorale Worksheets” section of the site to develop your writing of typical cadences in western classical music.</p>

## Physical Education

Key Skills to develop and refine	<p>Development of literacy in relation to written communication.</p> <p>An understanding of the breadth of study that Physical Education has.</p> <p>Evaluative skills through a balanced, analytical approach.</p> <p>A DEEP interest in sport.</p>
1. Review the Specification	<p>Within this review highlight, areas that you think you will be especially interested in. Write no more than a page referring to how studying A Level Physical Education is going to improve YOUR performance in your chosen sport.</p>
2. Listen to some podcasts	<p>High Performance Podcast. Steven Gerrard.</p> <p>Fozcast. The biggest job in football episode S3 E5.</p> <p>Fozcast. How sport psychology is changing the game. S2 E11</p>
3. Read a book	<p>Sport Gene by Epstein. Give a review of your most interesting chapter. Explain why it was your favourite/most interesting chapter.</p>
6. Watch a film	<p>Icarus. Give your opinion of the film? What was the most thought-provoking element? Why? What solutions/sanctions do you think would help reduce the doping that occurs in professional sport?</p>
7. Newspaper articles	<p>Either print or cut out from a broadsheet paper or online respected news outlet one article for each week of the 9-week break that you have. This needs to be compiled as a document. For each article you must justify why you have selected the article. You are also to explicitly link it to a topic on the Eduqas A Level Specification.</p>
<i>Compulsory task</i>	<p>Explain why Physical Education is so important to the society. This should be a detailed response. Within the response you should discuss</p> <p>Physiological</p> <p>Psychological</p> <p>Societal</p> <p>This should be at least a page in length.</p>

## Physics

Key Skills to develop and refine	Using vectors. Algebra and logarithms. Dimensional analysis. Graphing. Errors. MS Excel.
1.	Watch through this playlist of videos, completing the tasks below after the appropriate videos. <a href="https://youtube.com/playlist?list=PLhWoFJbwn00wDnH6wvnm0TzbiErRgsyU">https://youtube.com/playlist?list=PLhWoFJbwn00wDnH6wvnm0TzbiErRgsyU</a>
2.	Answer the questions on the 'Vectors questions' pdf
3.	Answer the questions on the 'Algebra and logarithms' pdf
4.	Answer the questions on the 'Dimensional analysis questions 1' and 'Dimensional analysis question 2' pdfs
5.	Answer the questions on the 'Graphing skills questions' pdf
6.	Answer the questions on the 'Errors questions' pdf
<i>Compulsory task</i>	All the above and make a note of any difficulties you encountered to discuss when you start in September.

## Product Design

Key Skills to develop and refine	<p>Revision of basic concepts from AQA GCSE theory content</p> <p>Designing aptitude using Solidworks 3D CAD package</p> <p>Graphic communication and accuracy of sketching skills</p> <p>An appreciation of what is 'good design' based on Dieter Rams 10 Principles</p> <p>Understand what it is like to work as an engineer for Dyson</p>
1.	<p>Go to the Seneca website using link attached and complete all the questions from the assignment relating to revision of GCSE content. Class Code <a href="#">au6thv9tbu</a></p> <p><a href="https://app.senecalearning.com/dashboard/class/au6thv9tbu/assignments/assignment/a5658e15-2653-4aeb-92f1-3d813dd3c7f5">https://app.senecalearning.com/dashboard/class/au6thv9tbu/assignments/assignment/a5658e15-2653-4aeb-92f1-3d813dd3c7f5</a></p>
2.	<p>Practise your skills using Solidworks. Download details will be made available on Microsoft Teams page. Mac users will need to use alternative packages such as Fusion360 (free trial versions for education).</p> <p>Use some simple YouTube tutorials to develop your skills using this software.</p>
3.	<p>Using your sketch books, practise your sketching technique using an appropriate 3d drawing method. Look around your house for personal belongings and interesting pieces of furniture and replicate in perspective. Further your skills by adding appropriate render or shade.</p>
4.	<p>Using resources such as the Design Museum, investigate and explore Dieter Rams 10 Principles of Good Design.</p> <p><a href="https://designmuseum.org/discover-design/all-stories/what-is-good-design-a-quick-look-at-dieter-rams-ten-principles">https://designmuseum.org/discover-design/all-stories/what-is-good-design-a-quick-look-at-dieter-rams-ten-principles</a></p>
5.	<p>The James Dyson Foundation provides some fantastic resources to further your understanding of the world of engineering and appreciate what it is like to be an engineer working for Dyson. Using the link below, explore some of the profiles, discussing their experiences working at Dyson.</p>
<i>Compulsory task</i>	<p>One of the first projects you will complete in Year 12 will be an Angle-Poise desktop lamp. Using either hand sketches or a suitable CAD software (as above – not SketchUp), produce a set (at least one page of A4) of possible ideas for a foldable and space-saving design.</p>



## Psychology

<p>Key Skills to develop and refine</p>	<p>An understanding of how psychological research is conducted, including an analysis of effective ways to conduct research with human participants.</p> <p>An understanding of psychological concepts including mental illness diagnostic criteria.</p> <p>Real-life applications of psychological research in law and healthcare.</p> <p>The process of conducting psychological research and publishing research that has been peer reviewed in academic journals.</p>
<p>1. Research Methods techniques used in Psychology</p>	<p>Using the Internet, look up some of the Research methods used by Psychologists. What are the strengths and limitations of using each to study human behaviour?</p> <p>Experimental methods e.g., Laboratory experiment, Field experiment</p> <p>Observational techniques e.g., Controlled observation, Naturalistic observation; Covert Observation, Overt Observation</p> <p>Self-report techniques e.g., Interviews, Questionnaires</p> <p>Case Studies</p> <p>Correlations</p>
<p>2. A case study - watch a documentary</p>	<p>Watch this documentary: Real crime – Brian Blackwell (YouTube, part 1 &amp; 2)</p> <p><a href="https://www.youtube.com/watch?v=fFC1vEcKnJI&amp;list=PLRXoZwhIYNObFsTrxri0R26dAo1IBMUfA&amp;index=2">https://www.youtube.com/watch?v=fFC1vEcKnJI&amp;list=PLRXoZwhIYNObFsTrxri0R26dAo1IBMUfA&amp;index=2</a></p> <p><a href="https://www.youtube.com/watch?v=EsqmOSdOxGc&amp;list=PLRXoZwhIYNObFsTrxri0R26dAo1IBMUfA&amp;index=2">https://www.youtube.com/watch?v=EsqmOSdOxGc&amp;list=PLRXoZwhIYNObFsTrxri0R26dAo1IBMUfA&amp;index=2</a></p> <p>Consider whether you think Brian Blackwell has a mental illness.</p> <p>Do you think his behaviour is normal or abnormal? Why is this difficult to define?</p> <p>Conduct some research on Narcissistic Personality Disorder – what are some causes, explanations, and treatments? Do you think Brian Blackwell meets the diagnostic criteria for Narcissistic Personality Disorder?</p>
<p>3. British Psychological Society (BPS)</p>	<p>Access the BPS website ‘Research Digest’ <a href="https://digest.bps.org.uk/">https://digest.bps.org.uk/</a></p> <p>Read two articles that interest you.</p>
<p>4. Read a full</p>	<p>Access Google Scholar online <a href="https://scholar.google.com/">https://scholar.google.com/</a></p>

journal article using Google Scholar.	This will filter Google to give you published academic research studies. Search for a Psychological topic that interests you and read a full published research study. Consider why it is important to verify or check the quality of research (peer review) before it is published.
<i>Compulsory task</i>	You must complete the tasks listed above labelled 1-3. Task 4 is optional. You should expect to discuss your preparation during an early Psychology lesson. What did you learn? What questions were left unanswered? Was there something you would like to explore further?

## Religious Studies

<p>Key Skills to develop and refine</p>	<p>To think critically and analytically</p> <p>To empathise with the views of others</p> <p>To explore philosophical language and thought through significant concepts and the works of key thinkers.</p> <p>To consider a range of ethical theories, both deontological and teleological, religious, and non-religious.</p> <p>To explore how ethical language has changed over time</p>
<p>1. Read a Non-Fiction Book</p>	<p>Read at least one of these:</p> <p>Think by Simon Blackburn</p> <p>Ethics: A Very Short Introduction by Simon Blackburn</p> <p>The Thinker's Guide to God by Peter Vardy and Julie Arliss</p> <p>The Thinker's Guide to Evil by Peter Vardy and Julie Arliss</p> <p>The God Delusion by Richard Dawkins</p> <p>These books might be a little trickier:</p> <p>Christian Theology by Alister McGrath</p> <p>The Puzzle of God by Peter Vardy</p> <p>The Puzzle of Ethics by Peter Vardy</p> <p>Language, Truth, and Logic by A.J. Ayer</p>
<p>2. Read a Fiction Book</p>	<p>The Parable of the Sower by Octavia Butler</p> <p>Purple Hibiscus by Chimamanda Ngozi Adichie</p> <p>The Dispossessed by Ursula Le Guin</p> <p>The Handmaid's Tale by Margaret Atwood</p> <p>The Power by Naomi Alderman</p> <p>The Color Purple by Alice Walker</p> <p>Orlando by Virginia Woolf</p> <p>Do Androids Dream of Electric Sheep by Philip K. Dick</p> <p>The Brothers Karamasov by Fyodor Dostoyevsky</p>

	Animal Farm by George Orwell
3. Watch a Film	<p>The Truman Show</p> <p>Eternal Sunshine of the Spotless Mind</p> <p>Her</p> <p>Being John Malkovich</p> <p>Inception</p> <p>Persepolis</p> <p>Solaris</p> <p>Blade Runner</p> <p>Ex Machina</p> <p>Invictus</p> <p>Dead Man Walking</p> <p>Cry Freedom</p> <p>The Matrix</p>
4. Play a Game	<p>These games cover many issues particularly from the Ethics session of the course:</p> <p>The Last of Us</p> <p>The Bioshock Series</p> <p>Mass Effect (particularly #2)</p> <p>The Stanley Parable</p> <p>The Talos Principle</p> <p>Papers Please!</p>
5. Email newsletters	<p>Search for these online and sign up to their weekly newsletter delivered direct to your inbox:</p> <p>Farnam Street's Brain Food: <a href="https://fs.blog/newsletter/">https://fs.blog/newsletter/</a></p> <p>Brain Pickings: <a href="https://www.brainpickings.org/newsletter/">https://www.brainpickings.org/newsletter/</a></p> <p>Alain de Botton's School of Life: <a href="https://www.theschooloflife.com/london/">https://www.theschooloflife.com/london/</a></p>
6. Podcast	<p>You should be able to find these through any podcast app, but you can also listen direct from their websites:</p> <p>Philosophy Bites: <a href="http://www.philosophybites.com/">http://www.philosophybites.com/</a></p>

	<p>The PanPsyCast: <a href="http://www.thepanpsycast.com">www.thepanpsycast.com</a></p> <p>Radio 4s 'In Our Time':  <a href="https://www.bbc.co.uk/programmes/b006qykl/episodes/player">https://www.bbc.co.uk/programmes/b006qykl/episodes/player</a></p>
7. You Tube Channels	<p>Crash Course Philosophy:  <a href="https://www.youtube.com/watch?v=1A_CAKYt3GY&amp;list=PL8dPuuaLjXtNgK6MZucdYldNkMybYIHKR">https://www.youtube.com/watch?v=1A_CAKYt3GY&amp;list=PL8dPuuaLjXtNgK6MZucdYldNkMybYIHKR</a></p> <p>Philosophy Tube: <a href="https://www.youtube.com/user/thephilosophytube">https://www.youtube.com/user/thephilosophytube</a></p>
Compulsory task	<p>You need to complete at least two of the seven options listed above and write a 400-word commentary using the following questions as prompts. Your work will be submitted via Microsoft Teams, and you should expect to discuss your preparation during an early RS lesson:</p> <p>What led you to choose the task you did? Consider the factors that shaped your decision.</p> <p>What did you enjoy about it?</p> <p>What would you specifically recommend to others?</p> <p>What did you learn about Religious Studies/Philosophy/Ethics?</p> <p>What questions were left unanswered? Was there something you would like to explore further?</p>

## Spanish

<p>Key Skills to develop and refine</p>	<p>Revision of grammar</p> <p>The ability to read longer texts</p> <p>Greater awareness of Spanish culture and society</p> <p>Exploring your own interests such as music, sport, history, politics through research</p> <p>Spanish for pleasure through music, film, and television</p>
<p>1. The regions of Spain</p>	<p>Read the information in the regions of Spain booklet and complete the activities throughout the document. There is a wealth of information there and we hope you will be inspired to delve deeper into some of the aspects of the regions that you find most interesting. You should also prepare your own research on Andalucía, in the style of the other regions covered in the booklet.</p>
<p>2. Literature</p>	<p>Read some literature. There is a short story on the next few pages, followed by a list of suggested books. Look up summaries of the titles mentioned and choose one to read. (You may be able to find a PDF online or in the Files section of the MS Team, for WHSB students. Alternatively, the e-book may be free or cost less than the paper copy.)</p>
<p>3. History</p>	<p>If you enjoy history, there is much to explore. Here are some suggestions:</p> <p><i>Al-Andalus</i> may appeal to you if Spain's Islamic past is of interest.</p> <p><i>Los Reyes Católicos</i></p> <p><i>La Inquisición</i></p> <p><i>El imperio español y los territorios</i></p> <p><i>El imperio Inca</i></p> <p><i>La revolución mexicana</i></p> <p><i>La Guerra Civil Española</i></p> <p><i>Simón Bolívar</i></p> <p><i>Fidel Castro</i></p> <p><i>Augusto Pinochet</i></p>
<p>4. The Arts</p>	<p>For artists, musicians, and future architects, why not find out about the cultural heritage of Spain and the Spanish-speaking world? Research famous artists, paintings, galleries, delve deeper into music, find the lyrics to the songs that appeal to you, or go on virtual tours of buildings you may discover. <i>Gaudi, Picasso, Dalí, Kahlo, Velázquez</i> and <i>Goya</i> are just some names to start.</p>

5. Politics and current affairs	If you are interested in politics and current affairs, find out about Spanish political parties, the rise of <i>Vox</i> or the transition from dictatorship to democracy in the 1970s. You may like to look up human rights activists <i>Helena Maleno Garzón</i> and <i>Sani Ladan</i> , antiracism activists <i>Moha Gerehou</i> and <i>Desirée Bela-Lobedde</i> (they can be found on social media), <i>los CIE</i> and <i>los manteros</i> .
6. Verbs and tenses	Brush up on verbs and tenses using <a href="http://www.conjuguemos.com">www.conjuguemos.com</a> or <a href="http://www.languagesonline.org.uk">www.languagesonline.org.uk</a> – ( <a href="https://www.languagesonline.org.uk/Hotpotatoes/spanishindex.html#Grammar">https://www.languagesonline.org.uk/Hotpotatoes/spanishindex.html#Grammar</a> ).
7. Film and TV	Watch a Spanish series on Netflix or <a href="http://www.rtve.es">www.rtve.es</a> and find out more about the cast, crew, locations, its popularity in the Spanish-speaking world and, if it is based on real life events, how true to the facts the writers and producers decided to make it.
<i>Compulsory task</i>	Research on Andalucía – see above. This can take the form of a PowerPoint presentation, a Word document, a hand-written piece of work, or some other suitable format to present the research. The content should be in Spanish, in your own words, and it should be illustrated. For a guide to length, please refer to the regions of Spain booklet. Put your own twist on the research to tell us something about yourself, e.g., Andalusian football teams, history, food, vocabulary, landmarks etc.