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Aim High Progress Study Programme _ (Year 13) –October _2024

Subject	Focus	Activities	Useful website
Accounting	<p>To evaluate the performance of a business based on budgeted information.</p> <p>To make recommendations as to how the performance of a business, as revealed by a business could be improved.</p>	<p>Download an annual report of a company; understand the Profit and Loss of the company for 3 years.</p> <p>Present a budget for next year by taking into consideration the various changes in expenses and income.</p>	<p>www.myaccountinglab.com, www.bized.co.uk</p> <p>www.tutor2u.net</p> <p>www.cie.org.uk,</p>
Arabic (Arabs)	<p>TOPIC:</p> <p>قصيدة المساء خليل مطران</p> <p>قصة علامة تعجب</p> <p>كتابة استجابة لنص أدبي</p> <p>(Learning objectives:</p> <p>أن يحلل النصّ الشعريّ تحليلًا فكريًا ونقديًا</p> <p>وبلاغيًا</p> <p>أن يوضح الفكرة الرئيسية والأفكار الفرعية</p> <p>أن يستنتج الدلالات التعبيرية</p>	<p>أن يحلل النصّ الشعريّ تحليلًا فكريًا ونقديًا وبلاغيًا</p> <p>أن يوضح الفكرة الرئيسية والأفكار الفرعية</p> <p>أن يستنتج الدلالات التعبيرية</p> <p>أن يقارن الطالب بين النص ونص آخر موضحا أوجه التشابه والاختلاف</p>	<p>https://mawdoo3.com/%D8%AA%D8%AD%D9%84%D9%8A%D9%84%D9%82%D8%B5%D9%8A%D8%AF%D8%A9%D8%A7%D9%84%D9%85%D8%B3%D8%A7%D8%A1%D9%84%D8%AE%D9%84%D9%8A%D9%84%D9%85%D8%B7%D8%B1%D8%A7%D9%86</p> <p>https://uae-school.com/archives/65387#google_vignette</p>



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	<p>أن يستنتج القيم الواردة بالنص</p> <p>أن يقارن الطالب بين النص ونص آخر موضحا أوجه التشابه والاختلاف</p> <p>أن يكتب استجابات شخصية للنصوص تعكس فهمه للمعنى</p> <p>أن يراجع مسودات متعددة لما يكتب ، ويعيد تحريرها</p> <p>أن يحدد النقاط الرئيسية التي قام عليها النص</p> <p>-أن يحلل المتعلم أفكار القصة رابطا إياها برؤية الكاتب وتجربته الفنية</p> <p>. أن يحلل جوانب النصوص(إنشاء المكان والزمان).</p> <p>-أن يفسر المتعلم الكلمات مستعيناً بالمعجم الورقي والرقمي.</p> <p>-أن يتتبع الأثر الذي يتركه أسلوب الكاتب ؛ لإيصال الفكرة.</p> <p>-أن يحلل المتعلم الأفكار في القصة.</p>	<p>أن يكتب استجابات شخصية للنصوص تعكس فهمه للمعنى</p> <p>أن يراجع مسودات متعددة لما يكتب ، ويعيد تحريرها</p> <p>أن يحدد النقاط الرئيسية التي قام عليها النص</p> <p>أن يحلل المتعلم أفكار القصة رابطا إياها برؤية الكاتب وتجربته الفنية.</p> <p>أن يفسر المتعلم الكلمات مستعيناً بالمعجم الورقي والرقمي.</p> <p>أن يتتبع الأثر الذي يتركه أسلوب الكاتب ؛ لإيصال الفكرة.</p> <p>أن يحلل المتعلم الأفكار في القصة.</p>	
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Islamic Studies Arabs	TOPIC: أحكام النون الساكنة والتنوين التطرف Learning objectives: أن يتعرف على أحكام النون الساكنة والتنوين أن يعدد مخاطر التطرف وأثره على الفرد والمجتمع	عمل خريطة ذهنية توضح أحكام النون الساكنة والتنوين عمل بحث يبين مخاطر التطرف مدعم بحثه بالأدلة اللازمة	حل درس أحكام النون الساكنة تربية إسلامية صف سادس فصل أول - مدرستي الامارتية (uae-school.com) حل درس التطرف تربية إسلامية صف ثاني عشر فصل أول - مدرستي الامارتية (uae-school.com)
Islamic Studies Non Arabs	TOPIC: PROHIBITED SALES Slander Learning objectives:	SEARCH AN EXAMPLE FROM SEERAH THAT SHOWS HOW DOES SPREADING RUMOR IS DANGEROUS. HOW CAN WE SAVE OURSELVES FROM BELIEVING THE RUMORS? RECORD THE VIDEOYOUR PARENTS HAVE DECIDED TO RUN A SMALL BUSINESS. THEY INTEND TO	



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	<p>-To Elucidate the concept and importance of prohibited business in Islam</p> <p>- To evaluate the consequences of haram business on an individual and society</p> <p>To appreciate the magnificent • character of Ayesha(RA)</p> <p>To comprehend the consequences of rumors on individual and society</p>	<p>OPEN A RESTAURANT IN JBR AND THEY NEED THE APPROVAL FROM THE LOCAL AUTHORITIES. BUT BEFORE THEY HAVE TO SUBMIT A PITCH DECK, WHICH IS A BRIEF PRESENTATION, USED TO PROVIDE YOUR AUDIENCE WITH A QUICK OVERVIEW OF YOUR BUSINESS PLAN.</p> <p>THEREFORE, YOUR PARENTS ARE ASKING YOUR SUPPORT TO HELP THEM MAKING A PITCH DECK, WHICH MUST HIGHLIGHT THE “ISLAMIC ETHOS” AND TO ENSURE THAT THEY ARE NOT FALLING INTO ANY PROHIBITED SALES.</p> <p>POST YOUR POINT OF VIEW.</p>	<p>https://islamqa.info/en/answers/121059/words-of-slander</p>
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Biology	PHOTOSYNTHESIS: <ul style="list-style-type: none">• To elucidate the three steps of Light dependent reaction and signify it over light independent reaction.• To justify the independence of light independent reaction with emphasis on the steps involved.• To interpret absorption spectra of chloroplast pigments and action spectra for photosynthesis.• To compare cyclic photophosphorylation and non-cyclic photophosphorylation during the light-dependent stage of photosynthesis• To outline the three main stages of the Calvin cycle:	<ul style="list-style-type: none">• Schematically illustrate the purpose of photosynthesis and transfer of energy from light to complex organic molecules.• Interpret graphical data showing the effects of limiting factors.• Draw a labelled diagram of a palisade cell and a chloroplast and write a summary of how they are adapted for photosynthesis.• Produce an annotated diagram of the light-dependent stage.• Add bullet points to build understanding of photolysis, photosystems, chain of electron carriers / ATP production and reduction of NADP.• Investigate the effect of light intensity and light wavelength on the Hill reaction, using a very simple protocol.• Sketch out absorption and action spectra, explaining the similarities and differences between the two.	<ul style="list-style-type: none">https://www.visiblebody.com/learn/biology/photosynthesis/reactionshttps://pmt.physicsandmathstutor.com/download/Biology/A-level/Notes/AQA-Old/Unit-4/4.3%20Photosynthesis.pdfhttps://www.tutorchase.com/notes/cie-a-level/biology/13-1-5-absorption-and-action-spectrahttps://www.mytutor.co.uk/answers/26041/A-Level/Biology/What-is-the-difference-between-cyclic-and-non-cyclic-photosynthesis/https://studymind.co.uk/notes/the-2-stages-of-photosynthesis/https://practicalbiology.org/energy/photosynthesis/investigating-the-light-dependent-reaction-in-photosynthesis
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	<p>Selection and evolution:</p> <ul style="list-style-type: none">• Discuss in groups how Darwin, using Darwin’s finches as an example, suggested that isolation of populations leads to speciation.• Use drawings / photographs of Darwin’s finches to annotate and explain speciation by isolation.• Research Darwin’s mockingbirds, explaining how the observations made of these birds are believed to have had a major influence on Darwin in his development of the concept of natural selection.	<ul style="list-style-type: none">• Create a mind map on the factors influencing selection and variation.• Compare between natural selection and artificial selection.• Make a presentation on the selective breeding, focusing on it’s commercial aspect.	<p>https://askabiologist.asu.edu/peppered-moths-game/play.html</p> <p>https://www.biointeractive.org/planning-tools/resource-playlists/teaching-natural-selection-and-genetic-code-using-rock-pocket</p> <p>https://pmt.physicsandmathstutor.com/download/Biology/A-level/Notes/CIE/17-Selection-and-Evolution/Summary/Summary%20Notes%20(2022-2024%20syllabus).pdf</p> <p>https://www.huffingtonpost.com/james-a-shapiro/variation-and-selection-w_b_1522314.html</p>
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Business Studies	<p>Topic: Analysis of published accounts</p> <p>To analyse how improving liquidity can help reduce working capital problems. To evaluate the usefulness of calculating liquidity and profitability ratios. To analyse the methods of improving financial efficiency</p>	<ul style="list-style-type: none">▪ Students identify and discuss how the gearing ratio may affect the following areas of the business:<ul style="list-style-type: none">○ potential shareholders/investors○ current owners○ sources of finance.▪ Research on how the managers of a business may still try to encourage investment despite poor gearing.▪ Critically evaluate the best ways to improve the liquidity of each business. <p>Critically evaluate and discuss how the investment ratios may affect business decisions</p>	<p>http://www.companieshouse.gov.uk/accounts/</p> <p>https://znotes.org/caie/a2-level/business-9609/theory/analysis-of-published-accounts/</p> <p>https://dineshbakshi.com/as-a-level-business-studies/finance-and-accounting/revision-notes/1456-ratio-analysis</p>
Chemistry	<p><u>Further Aspects of Equilibria:</u></p> <ul style="list-style-type: none">• To outline the relationship between pH, K_a, pK_a and K_w and use them in calculations.• To choose an appropriate indicator for acid-base titration.• To determine the pH of buffer solutions and outline their uses in daily life.• To use solubility product for sparingly soluble salts and	<ul style="list-style-type: none">• Construct titration curves for strong acid-strong base, strong acid-weak base, weak acid-strong base, weak acid-weak base titrations, justifying the choice of indicator used in each titration.• Write an article on “Role of Buffers.”• Create a research paper on the importance of common ion effect (give some real life examples).• Write solubility product expressions for five sparingly soluble salts	<p>http://www.a-levelchemistry.co.uk/42-equilibria.html</p> <p>http://www.chemguide.co.uk/physical/equilibmenu.html</p> <p>http://www.chemguide.co.uk/physical/acidbaseeqia/buffers.html</p> <p>http://alevelchem.com/aqa_a_level_chemistry/unit3_4/s3403/05.htm</p> <p>http://www.docbrown.info/page07/equilibria4.htm</p> <p>http://study.com/academy/lesson/partition-coefficient-definition-and-calculation.html</p>



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	<p>justify the effect of common ion.</p> <ul style="list-style-type: none">To deduce partition coefficient (K_{pc}) for a solute partitioned between two immiscible solvents and use it in calculations. <p>Chemistry of Carboxylic acids and Acyl chlorides:</p> <ul style="list-style-type: none">To outline the reactions of carboxylic acids in the formation Of acyl chlorides.To recognize the ability of some carboxylic acids to be further oxidizedTo deduce the relative acidities of carboxylic acids, phenols and alcoholsTo apply the concept of electronegativity to explain the acidities of chlorine-substituted ethanoic acids.	<ul style="list-style-type: none">Solve complex questions based on K_a, pK_a, K_w, K_{sp}, and K_{pc} from past papers.Make a power-point presentation on chromatography and the principle of partition coefficient.Practice writing names of derivatives of carboxylic acids.Create a checklist for nomenclature of derivatives of carboxylic acids.Compare the physical and chemical properties of derivatives of carboxylic acids, giving a justifications for your choice.Design step by step animation to show reaction mechanism that operates in acyl chlorides. Clearly showing curly arrows, partial charges and lone pair of electrons.Compare and contrast relative ease of hydrolysis of acyl chlorides, alkyl	<p>https://chem.libretexts.org/Textbook_Maps/Organic_Chemistry/Map%3A_Organic_Chemistry_(McMurry)/Chapter_21%3A_Carboxylic_Acid_Derivatives%3A_Nucleophilic_Acyl_Substitution_Reactions/21.01_Naming_Carboxylic_Acid_Derivatives</p> <p>https://www.britannica.com/science/carboxylic-acid</p> <p>https://www.chemguide.co.uk/mechanisms/addelim/alcohol.html</p> <p>https://en.wikipedia.org/wiki/Acyl_chloride</p>
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	<ul style="list-style-type: none">• To describe the hydrolysis of acyl chlorides• To describe the reactions of acyl chlorides with alcohols, phenols, ammonia and primary amines• To analyze the relative ease of hydrolysis of acyl chlorides, alkyl chlorides and aryl chlorides including the condensation (addition-elimination) mechanism for the hydrolysis of acyl chlorides	<p>chlorides and aryl chlorides including the condensation mechanism for the hydrolysis of acyl chlorides</p> <ul style="list-style-type: none">• Write an article for newspaper to discuss the importance of derivatives of acyl chlorides.	
Economics	To analyze the concept of “rationality” and applications to behavioral economics	<ul style="list-style-type: none">• Identify four individual purchases or decisions made by you recently which might be regarded as irrational.• Explain the extent to which these irrational decisions might be explained by behavioural economics.• Explain the concept of Rationality from the point of view of a consumer. Are all consumers necessarily rational?	<p>www.Tedtalks</p> <p>www.cie.uk.org</p> <p>www.s_cool</p> <p>www.tutor2u.net</p> <p>www.projectsyndicate</p>



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		<ul style="list-style-type: none"> • Research on the topic of Behavioral Economics and evaluate the effectiveness of behavioral nudges in economic policy making by governments. Create an Interactive Ted- Ed Lesson • Discuss the real-world applications of behavioral economics and present your findings as a Presentation. • Watch a Ted Talk –Predictably Irrational and in a Pod Cast discuss the key points and whether you necessarily agree with the speaker. 	
Psychology	<p>Motivation to work</p> <ul style="list-style-type: none"> • Cognitive theories (Locke’s Goal Setting theory and Vroom’s Expectancy Theory) 	<ul style="list-style-type: none"> • Make a mind map -how the theory might be applied in the workplace and make any necessary cross-references to goal setting theory (or other theories whenever possible). 	<p>www.grin.com/document/65341</p> <p>www.managementstudyguide.com/expectancy-theory-motivation.htm</p>
Physics	<p>Capacitance</p> <ul style="list-style-type: none"> • To understand the function of capacitors in simple circuit. 	<ul style="list-style-type: none"> • Research on Capacitors with solid dielectrics, Air capacitor and Electrolytic capacitor. State the uses of capacitors. 	<p>https://www.cambridgeinternational.org/</p> <p>https://www.allaboutcircuits.com/worksheets/capacitance/</p>



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	<ul style="list-style-type: none">• To derive the formulae for combined capacitance in series and parallel circuits and solve problems using the capacitance formula• To deduce, from the area under a potential-charge graph, the equation for energy stored in a capacitor <p>Heat and Thermodynamics</p> <ul style="list-style-type: none">• Compare the relative advantages and disadvantages of resistance and thermocouple thermometers as previously calibrated instruments• Explain using simple kinetic molecular model of matter: structure of solid liquids and gases. Melting and boiling	<ul style="list-style-type: none">• What is the effect of introducing a dielectric slab between the plates of a parallel plate capacitor <ul style="list-style-type: none">• Design experimental set up to determine specific heat capacity using calorimeter• Compare latent heat of steam and ice	<p>http://znotes.org/a2-physics/</p> <p>http://www.physicsatweb.com/rev.php?id=Simple%20Kinetic%20Molecular%20Model%20of%20Matter&v=true</p> <p>http://mrtremblaycambridge.weebly.com/p4-simple-kinetic-molecular-model-of-matter.html</p> <p>http://physicsnet.co.uk/a-level-physics-as-a2/thermal-physics/thermal-energy/</p> <p>https://www.youtube.com/watch?v=ZwXtPW0gdD0</p> <p>http://hyperphysics.phy-astr.gsu.edu/hbase/thermo/firlaw.html</p>
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	<p>take place without a change in temperature.</p> <ul style="list-style-type: none">• Understand the specific latent heat of vaporization is higher than specific latent heat of fusion for the same substance.• Define and use the concept of specific heat capacity and specific latent heat, identify the main principles of its determination by electrical methods.• Show an understanding that internal energy is determined by the state of the system and that it can be expressed as the sum of a random distribution of kinetic and potential energies associated with the molecules of a system.• Relate a rise in temperature of a body to an increase in its internal energy $dU = q + W$	<ul style="list-style-type: none">• Research on use of heat energy to mechanical energy, in automobile industries• Calculate internal energy of a system doing work• Determine the temperature of a Bunsen flame using a thermocouple that requires calibration.	<p>http://www.physics.usyd.edu.au/super/life_sciences/TP/TP-rev-questions.pdf</p>
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Sociology	Mass Media	<p>Research on Media Freedom Index</p> <p>Are media consumers simply passive recipients of whatever owners want to publish, or are they more sophisticated and reflecting?</p> <p>Are some parts of the media audience (such as children) more open to influence than others?</p> <p>Reflect on the above questions and write a 200 word paragraph evaluating them .</p>	<p>https://revisesociology.com/media-studies/</p> <p>https://rsf.org/en/2024-world-press-freedom-index-journalism-under-political-pressure</p>
English Language	Linguistics	<p>Research and create a visual presentation on the following topic:</p> <ul style="list-style-type: none">• What is linguistics?• How is the study of linguistics important?• List the names of some prominent linguists and their contribution to society.	<p>https://linguistics.ucsc.edu/about/what-is-linguistics.html</p>



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		How do you think has language evolved over the years?	
Art and Design	AO1 and AO2 learners to explore and build on their subject of interest. To encourage independent expression and the development of a critical, reflective practice. To accommodate a wide range of abilities, materials and resources, and allow the different skills to be fully exploited critically.	Communication: The need to understand the relationship about the chosen subject and the works that will build on critical and purposeful influences transformed into original/ influenced or manipulated outcome.	www.studentartguide.com
Information Technology	<ul style="list-style-type: none"> • Discuss the different stages of project management from project conception to project close • Articulate the role and responsibilities of project managers and recognize the importance of effective communication and collaboration in project management 	<p>Case Study: Provide students with real-world case studies of ICT projects and ask them to identify and analyze the different stages in the system life cycle implemented in each case. Students can discuss the challenges faced, the strategies employed, and the outcomes achieved at each stage each stage.</p> <p>evaluate suitable hardware and software for a new system</p> <p>Practical : Introduction to web programming</p>	<p>https://www.pmi.org/learning/library/effective-communication-better-project-management-6480</p> <p>https://www.researchgate.net/publication/352108029_Effective_Strategies_for_Communicating_and_Managing_Communication_in_a_Project_Team_My_Perspective</p>



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	<ul style="list-style-type: none">• Able to apply project management principles to analyze a real-world scenario and develop a basic project plan system specification and design specification• Identify a flow of data through a system and create a data flow diagram (DFD) and a system flowchart.• Design and evaluate data collection forms and screen layouts• Design and evaluate validation routines• Create a data dictionary for a given situation		
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<p>Computer Science</p>	<p>Object-oriented programming (OOP)</p> <ul style="list-style-type: none"> ➤ demonstrate an ability to solve a problem by designing appropriate classes ➤ demonstrate an ability to write code that demonstrates the use of classes, inheritance, polymorphism and containment (aggregation) 	<ul style="list-style-type: none"> ➤ Encourage your child to develop a software project to include the following: ➤ Create a database which can handle the files using OOPS concept. 	<p>OOP programming with Python: www.codecademy.com/courses/python-intermediate-en-WL8e4?curriculum_id=4f89dab3d788890003000096 Object diagram notes: http://en.wikipedia.org/wiki/Object_diagram</p>
<p>Travel and Tourism</p>	<p>To analyse the different types of market research and market tools analysis techniques.</p>	<ul style="list-style-type: none"> ▪ Recommend suitable market research for a local or well- known destination, e.g. a developing destination with low resources or a destination with very wide and varied target market, such as New York. ▪ Review statistical analysis of travel trends ▪ choose an area and review figures, e.g., accommodation, transport, online travel companies, attractions. Learners can present findings to the rest of their class. ▪ Prepare a presentation to explain ▪ Strengths, Weaknesses, Opportunities and Threats (SWOT analysis) ▪ Political, Economic, Social and Technological external influences (PEST analysis) 	<p>https://www.statista.com/topics/962/global-tourism/#dossierKeyfigures</p>



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Statistics 2	<p><u>Linear combination of random variables</u></p> <p>use, when solving problems, the results that</p> <ul style="list-style-type: none">• $E(aX + b) = aE(X) + b$ and $\text{Var}(aX + b) = a^2 \text{Var}(X)$ $E(aX + bY) = aE(X) + bE(Y)$; $\text{Var}(aX + bY) = a^2 \text{Var}(X) + b^2 \text{Var}(Y)$ for independent X and Y• if X has a normal distribution then so does $aX + b$;• if X and Y have independent normal distributions then $aX + bY$ has a normal distribution• if X and Y have independent Poisson distributions then $X + Y$ has a Poisson distribution. <p><u>Continuous random variables</u></p> <ul style="list-style-type: none">• understand the concept of a continuous random variable, and recall and use properties of a probability density function	<p>Research and summarise findings with examples on real life application of linear combination of random variables.</p> <p>Investigate about the properties and use of probability density function and summarise your learning.</p>	<p>https://www.statlect.com/probability-distributions/normal-distribution-linear-combinations</p> <p>https://stattrek.com/random-variable/combination.aspx</p> <p>https://revisionmaths.com/advanced-level-maths-revision/statistics/continuous-random-variables</p>
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<p style="text-align: center;">Pure Mathematics Complex Numbers</p>	<ul style="list-style-type: none"> • understand the idea of a complex number, recall the meaning of the terms real part, imaginary part, modulus, argument, conjugate, and use the fact that two complex numbers are equal if and only if both real and imaginary parts are equal • carry out operations of addition, subtraction, multiplication and division of two complex numbers expressed in Cartesian form $x + iy$ • use the result that, for a polynomial equation with real coefficients, any non-real roots occur in conjugate pairs • represent complex numbers geometrically by means of an Argand diagram • carry out operations of multiplication and division of two complex numbers expressed in polar form • understand in simple terms the geometrical effects of conjugating a complex number and of adding, subtracting, multiplying and dividing two complex numbers 	<p>Research on the application of complex numbers in Physics</p> <p>Complex numbers are used in fluid dynamics, particularly for studying potential flows. The complex potential function is used to investigate fluid flow around objects, assisting engineers and physicists in their understanding of aerodynamics and hydrodynamics</p> <p>Circuit Analysis: Complex numbers are used extensively in circuit analysis for calculating voltage, current, and power. The voltage and current in a circuit are typically represented as complex numbers. The use of complex numbers enables the representation of phasors, the sinusoidal voltage, and current signals in a circuit.</p> <p>Differential equations: Complex analysis aids in solving differential equations in engineering and physics, crucial for designing circuits and analysing vibrations. It also facilitates modelling fluid dynamics, electromagnetism, and signal processing, enhancing understanding and predictions in these areas.</p> <p>Technology: Complex numbers are also used to understand our technological devices because they make up the language of alternating current (AC) electronics. Using imaginary currents, together with real numbers, helps the people</p>	<p>https://www.savemyexams.com/a-level/maths_pure-3/cie/20/topic-questions/8-complex-numbers/8-1-complex-numbers/exam-questions/</p> <p>https://www.madasmaths.com/archive/maths_booklets/further_topics/various/complex_numbers_part_1_exam_questions.pdf</p> <p>https://timganmath.edu.sg/free-resources/h2-math/complex-numbers/</p> <p>https://www.revisionvillage.com/ib-math/analysis-and-approaches-hl/questionbank/number-and-algebra/complex-numbers/</p>
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	<p>illustrate simple equations and inequalities involving complex numbers by means of loci in an Argand diagram</p>	<p>who are working with AC electricity, do the calculations while avoiding electrocution</p>	
<p>Applied Mathematics – Mechanics – Work energy Power</p>	<ul style="list-style-type: none"> Identify the forces acting in a given situation Notes and examples e.g. by drawing a force diagram. Understand the vector nature of force, and find and use components and resultants Use the principle that, when a particle is in equilibrium, the vector sum of the forces acting is zero, or equivalently, that the sum of the components in any direction is zero <p>Understand that a contact force between two surfaces can be represented by two components, the normal component and the frictional component</p> <p>Use the model of a ‘smooth’ contact, and understand the limitations of this model</p>	<p>Research on the real life applications of Newton law</p> <p>Rocket propulsion : The exhaust from the rocket pushes the ground and the ground pushes the rocket with equal and opposite force to cause the latter to move forward. If the third law of motion never existed, we would never have made it into the space!</p> <p>Forces in equilibrium : civil engineer while designing the bridge have to ensure that bridge is strong enough and sturdy to support pedestrians or vehicles using the bridge</p>	<p>https://www.savemyexams.com/a-level/physics/cie/19/revision-notes/5-forces-density--pressure/5-2-forces-equilibrium-density--pressure/5-2-1-equilibrium-of-forces/https://www.scribd.com/document/522704796/9709-Teaching-Pack-4-1-ForcesAndEquilibrium-v1https://www.physicsandmathstutor.com/a-level-maths-papers/m1-by-topic/https://www.youtube.com/watch?v=bbJvjsx5G_M</p>



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	<ul style="list-style-type: none">• Understand the concepts of limiting friction and limiting equilibrium, recall the definition of coefficient of friction, and use the relationship $F = \mu R$ or $F \leq \mu R$ as appropriate		
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