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Subject	Focus	Activities	Useful Websites/Apps
Arabic (Arabs)	قصة رأيت النخيل قصيدة على قدر أهل العزم **(Learning objectives:** - أن يذكر المتعلم الدليل النصي القوي والمباشر لدعم ما يقوله النص . - أن يفسر المتعلم الكلمات مستعينًا بالمعجم الورقي والرقمي - أن يحلل المتعلم صورا بيانية (تشبيه – استعارة – كناية) . - أن يتتبع الأثر الذي يتركه أسلوب الكاتب ، واستخدامه لبعض التقنيات البلاغية . - أن يحلل النصّ الشّعريّ تحليلًا فكريًا ونقديًا وبلاغيًا. - أن يوضح الفكرة الرئيسة والأفكار الفرعية. - أن يستنتج الدلالات التعبيرية. - أن يستنتج القيم الواردة بالنص	- صف يوما من حياة الشخصية . - السبب في اختيار الأسماء مثل (رجاء) . - سجل بعض خصائص االقصة القصيرة كما تراها في النص - حلل أحد التشبيهات الموجودة في النص . - حدد عناصر القصة القصيرة أعد كتابة القصة مرة ثانية باسلوبك الخاص - ضع نهاية أخرى للقصة - سجل بعض خصائص الشعر الجاهلي كما تراها في النصّ. - اكتب بحثًا عن ازدهار الشعر في العصر العباسي - قارن بين نصين مستنتجا السمات المختلفة والمتشابهة فيهما . وتقديم تغذية راجعة لهم حدّد القيم الواردة بالنص وناقشها مع مجموعتك	https://seraj-uae.com/file/2669/ https://www.youtube.com/watch?v=XUL5PLy_g_w

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		حلّل النص الأدبي تحليلا أدبيا.	
Islamic Education (Arabs)	TOPIC: **التواصل الاجتماعي سلوك وآداب-** **Learning objectives:** **أن يحلل أثر التواصل على حياة الناس** **أن يستنتج خطور الشائعات على الأخرين**	**يكتب بحثا عن خطورة التواصل الاجتماعي على حياة الاسر والافراد**	https://www.youtube.com/watch?v=ngp5KGlmylQ
Islamic Education (Non Arabs)	TOPIC: 1. SEPARATION OF SPOUSES 2. SOCIAL INTERACTION- GOOD CONDUCT & MANNERS **Learning objectives:** ▫ **To Comprehend the significance of a balanced family system**	WRITE DOWN AN ARTICLE ON THE IMPORTANT OF MUTUAL RESPECT IN BUILDING A UNITED FAMILY? COMPARE THE FAMILY SYSTEM BEFORE ISLAM AND HOW IT CHANGED AFTER THE PROPHETHOOD OF PROPHET (P.B.U.H). GIVE SOME EXAMPLES OF THE EFFORTS OF U.A.E TO ENHANCE THE IMPORTANCE OF STRONG FAMILY TIES AMONG OF ITS PEOPLE.	▫ https://www.youtube.com/watch?v=YU87qBdkMVU&t=48s&ab_channel=QuranWeekly

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	▫ **To elucidate the importance of a healthy relationship with husband & wife** **-To learn the etiquettes of communicating** **- To highlight the responsibility of social media** **To evaluate the consequences of wrong use of social media.**	RECORD a video on the preventive measures one should take in order to save himself/ herself from the wrong use of social media. GIVE SOME SUGGESTIONS TO PREVENT YOUNG CHILDREN FROM USING SOCIAL MEDIA IN A WRONG MANNER.	
Accounting	• To interpret the meaning and features of consignment accounts. • To analyse why consignment is not a sale and explain the important terms used in consignment accounts. • To interpret the use and importance of financial appraisal techniques in the investment decision making process • To make recommendations as to how the performance of a business, as revealed by a business could be improved.	• Prepare a Prezi presentation comprising the following – ➢ Interpretation of the meaning and features of consignment accounts. ➢ Reasons explaining why consignment is not a sale. ➢ Explain the terms used in consignment accounts. • Present a report on the usefulness of financial appraisal techniques in investment decision. OR • Prepare a Ted Ed Flipped Lesson on the topic.	www.myaccountinglab.com, www.bized.co.uk www.cie.org.uk, http://www.accounting-world.com/ https://www.investopedia.com/ https://study.com/search/text/academy.html?q=accounting#/topresults/accounting

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Economics	• To develop independent researching skills and student led lessons on Growth vs Development.	• Prepare a Presentation for a student-led Lesson on any of the following topics: 1. Growth vs Development 2. Characteristics: Developed, developing and emerging economies. Use the Human Development Report to substantiate with facts and figures. 3. Factors Contributing to growth and development.	www.tutor2u.net www.s-cool www.bized.ac.uk www.xtremepapers.com
Business Studies	• To analyze the role of strategic management for the success of a business. • To research different sales forecasting methods for marketing planning.	• Research on the methods of strategic management and how a business would make its strategic choices? • Research on different sales forecasting methods and their application for different businesses.	www.bized.co.uk www.s-cool.co.uk www.businesscasestudies.co.uk

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Travel & Tourism	• Review the concept of branding destinations with marketing strategies.	• Choose any destination one in island and one in winter resort. For each of them try and work out what the USP is. • How might this affect the target markets for such destination? • Past paper questions pertaining to all topics covered so far •	https://www.researchgate.net/publication/241701652_Strategic_Branding_of_Destinations_A_Framework
Physics	**Laws of electromagnetic induction** **Ideal gases**	• Define magnetic flux and the weber • Define magnetic flux linkage • Infer from appropriate experiments on electromagnetic induction: that a changing magnetic flux can induce an e.m.f. in a circuit that the direction of the induced e.m.f. opposes the change producing it the factors affecting the magnitude of the induced e.m.f. solve problems using Faraday's and Lenz's laws of electromagnetic induction • Deduce a relationship between pressure, volume and the microscopic properties of the molecules of a gas	• https://www.savemyexams.co.uk/notes/a-level-physics-cie-until-2021/25-magnetic-fields-pre/25-6-electromagnetic-induction-pre/25-6-1-magnetic-flux-pre/ • https://isaacphysics.org/concepts/cp_magnetic_field?stage=all • https://byjus.com/physics/magnetic-flux/#:~:text=Magnetic%20flux%20is%20defined%20as,through%20a%20given%20surface%20area. • https://www.savemyexams.co.uk/notes/a-level-physics-

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			cie/15-ideal-gases/15-1-ideal-gas-law/15-1-2-ideal-gases/ • https://www.savemyexams.co.uk/notes/a-level-physics-cie-until-2021/25-magnetic-fields-pre/25-6-electromagnetic-induction-pre/25-6-3-principles-of-electromagnetic-induction-pre/ • https://www.youtube.com/watch?v=lI0_Mz3s6to
Chemistry	**<u>Entropy and Gibbs free energy:</u>** • To describe entropy as the measure of the disorder of a system • To predict the entropy change for a given reaction • To calculate entropy change and Gibbs free energy change for a reaction • To predict the effect of temperature change on the feasibility of a reaction	• Make a power-point presentation showing what is entropy, entropy changes, predicting entropy. • Compare the entropy changes for: Diamond and graphite, liquids and gases	• http://www.chemguide.co.uk/ • http://www.cie.org.uk/ • http://2ndlaw.oxy.edu/gibbs.html • http://study.com/academy/lesson/the-relationship-between-enthalpy-h-free-energy-g-and-entropy-s.html

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	• To suggest the spontaneity of a reaction using Gibbs free energy **Electrochemistry:** • To determine the relationship F = Le • To outline the methods used to measure the standard electrode potentials of: -metals or non-metals in contact with their ions in aqueous solution • Calculate a standard cell potential by combining two standard electrode potentials • To outline the direction of redox reaction using the electrochemical cell value **Analytical Techniques** • To explain and use the terms Rf value in thin layer chromatography and retention time in gas/liquid	• Prepare a TeDEd lesson to recall Gibbs free energy and calculating $\Delta G^{\ominus}$ • Solve past paper questions based on – entropy, Gibbs free energy. • Write an article on 'entropy of the universe is increasing' • Construct electrochemical cell consisting of a metal and its ion in aqueous solution • Calculate the Avogadro constant for the electrolysis of aqueous silver nitrate • Make a questionnaire (at least 10 questions) on calculating SEP using electrochemical cells.	• http://www.a-levelchemistry.co.uk/41-kinetics.html http://hyperphysics.phy-astr.gsu.edu/hbase/Chemical/electrochem.html http://chem.libretexts.org/Core/Analytical_Chemistry/Electrochemistry/Basics_of_Electrochemistry/Electrochemical_Cells https://www.chem.tamu.edu/class/fyp/stone/tutorialnotefiles/electro/nernst.htm • http://alevelchem.com/aqa_a_level_chemistry/unit3.4/s3411/05.htm

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	chromatography from chromatograms. • To interpret gas/liquid chromatograms in terms of the percentage composition of a mixture. • To deduce the molecular mass of an organic molecule from the molecular ion peak in a mass spectrum. • To deduce the number of carbon atoms in a compound using the M+1 peak. • To deduce the presence of bromine and chlorine atoms in a compound using the M+2 peak. • To suggest the identity of molecules formed by simple fragmentation in a given mass spectrum. • To analyse a carbon-13 NMR spectrum of a simple molecule to deduce: (i) the different environments of the carbon atoms present (ii) the possible structures for the molecule (iii) the different types of proton present using chemical shift values (iv) the relative numbers of each type of proton present from	• Make a Powerpoint presentation on the history of electrochemical cell • Research and prepare a write-up on determining the feasibility of a reaction based upon the electrochemical cell value • Using Mind maps prepare a summary of various reactions of each type of functional group. • Separation of the specific amino acids from a given mixture of them. • Calculate the areas of the triangular peaks to estimate the proportion of components in the mixture • Create a checklist of the order in which to make deductions from a mass spectrum.	• http://www.docbrown.info/page04/4_71atomMSintro.htm • https://alevelnotes.com/notes/chemistry/elements-of-life/mass-spectrometry • http://alevelchem.com/ • http://www.rsc.org/learn-chemistry • www.s-cool.co.uk • www.teachable.net http://www.rsc.org/education • http://www.rsc.org/learnchemistry/ • http://www.rsc.org/learnchemistry/ • www.teachable.net

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	relative peak areas	Make an infographic poster to explain M+1 and M+2 peaks and their significance • Practice analysing the NMR spectra of various molecules. • Work out the sub-atomic particles present in a deuterium atom. • Interpret the splitting pattern of D_2O. • Visit to see an NMR spectrometer in action and observe what sort of spectra it produces.	
Biology	**Inherited Changes** • Solve Problems using genetic diagrams involving test crosses, dihybrid cross, X linked inheritance. • Use the chi-squared test to test the significance of differences between observed and expected results (the formula for the chi-squared test will be provided) (see Mathematical requirements)	• Draw annotated diagrams, using colors or shading, to show how two adjacent cells (haploid number 2) can produce 4 genetically different gametes by independent assortment. • Create Models using different recyclable material to consolidate learning of: (i) independent assortment and	• http://www.contexo.info/DNA_Basics/Meiosis.html • http://highered.mcgrawhill.com/sites/0072495855/student_view0/chapter28/animation__how_meiosis_works.html

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	• To Outline causes and effects of various types of Mutation • To explore gene control in Prokaryotes and prokaryotes **Selection and evolution:** o Discuss in groups how Darwin, using Darwin's finches as an example, suggested that isolation of populations leads to speciation. o Use drawings / photographs of Darwin's finches to annotate to explain speciation by isolation. o 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.	crossing. (ii) Types of mutation. (iii) Gene regulation in prokaryotes and eukaryotes. 1. Create a mind map on the factors influencing selection and variation. 2. Compare between natural selection and artificial selection. 3. Make a presentation on the selective breeding, focusing on it's commercial aspect.	• https://www.youtube.com/watch?v=LuOaEe89_HE • https://www.youtube.com/watch?v=N7_K0yl0Egk • https://www.youtube.com/watch?v=eDbK0cxKKsk • https://www.youtube.com/watch?v=aTftyFboC_M • https://www.youtube.com/watch?v=fHS-OY9XDZc • https://www.huffingtonpost.com/james-a-shapiro/variation-and-selection-w_b_1522314.html

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Art and Design	• To develop and present from the inception to the critically analysed works.	• Communication: purposeful trials of art works to communicate, develop and present from the inception to the critically analysed works. The need to understand the relationship about the work which is developed, influenced by chosen media and methods.	• www.studentartguide.com
English	Revision Topics • To revise topics • A: Spoken language and social groups • Topic B: English as a global language • Topic C: Language acquisition by children and teenagers. • Identify and analyses distinguishing features of written and spoken language in the text(s), such as vocabulary, word order and the structure of sentences/utterances, figurative language (e.g. use of metaphor and simile), formality/informality of tone, and the communication of attitudes, bias or prejudice • Relate these features to the function and context of the text(s)	• Research on the topics and review the past papers.	• https://gceguide.com/resources/example-candidate-responses-extra-resources/

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Mathematics	**<u>Pure Mathematics</u>** **<u>INTEGRATION</u>** • Extend the idea of 'reverse differentiation' to include the integration of e^{ax+b}, 1/ax b sin(ax + b), cos(ax + b), sec^2 (ax + b) and $1/a^2 + b^2$. • Use trigonometrical relationships in carrying out integration • Integrate rational functions by means of decomposition into partial fractions • Recognise when an integrand can usefully be regarded as a product, and use integration by parts • Use a given substitution to simplify and evaluate either a definite or an indefinite integral.	Research on the application of integration 1. An Architect Engineer uses integration in determining the amount of the necessary materials to construct curved shape constructions (e.g. dome over a sports arena) and also to measure the weight of that structure. 2. In Electrical Engineering, Integration is used to determine the exact length of power cable needed to connect two substations, which are miles away from each other. 3. In Physics, Integration is very much needed. For example, to calculate the Centre of Mass, Centre of Gravity and Mass Moment of Inertia of a sports utility vehicle. 4. A graphics artist uses calculus to determine how different three-dimensional models will behave when subjected to rapidly changing conditions. It can create a realistic environment for movies or video games.	**https://tutorial.math.lamar.edu/classes/calcii/integrationbyparts.aspx** **https://tutorial.math.lamar.edu/problems/calci/substitutionruleindefinite.aspx** **https://math.libretexts.org/Courses/Mount_Royal_University/MATH_1200%3A_Calculus_for_Scientists_I/4%3A_Integral_Calculus/4.1%3A_Integration_by_Substitution** **https://www.youtube.com/watch?v=PyLXFY3VkNE** **https://liavas.net/courses/calc1/files/Exp_log_trig_integration.pdf** **https://qedinsight.wordpress.com/2012/02/26/a-neat-trick-for-determining-the-integrals-of-expx-cos-x-and-expx-sin-x/** **https://www.mathsisfun.com/calculus/integration-by-parts.html**

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	Statistics 1 **<u>Topic: Discrete random variables</u>** • Construct a probability distribution table for a discrete random variable X. • Calculate the expectation, E(X),and variance,Var(X), of a discrete random variable. • Calculate binomial probabilities using the notation X~B(n,p) • Calculate expectation and variance for a binomial distribution. • Calculate geometric probabilities using the notation X~Geo(x) • Calculate expectation of a geometric distribution • Recognise practical situations where these distributions are suitable models.	Model a situation on discrete random variable from a real life situation. Summarise your learning and prepare notes on discrete random variables with examples. Summarise your learning and prepare mind map using an ICT tool usion binomial distribution with examples.	https://revisionmaths.com/advanced-level-maths-revision/statistics/binomial-distribution https://revisionmaths.com/advanced-level-maths-revision/statistics/normal-distribution https://www.youtube.com/watch?v=HF9YCzoX8kU https://www.youtube.com/watch?v=y6wofZpuxfE

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	Statistics 2 **Sampling and Estimation** • Understand the distinction between a sample and a population, and appreciate the necessity for randomness in choosing samples. • Calculate expectation and variance of the mean of a random sample. • Solve problems using central limit theorem where appropriate • Calculate unbiased estimates of the population mean and variance Determine and interpret a confidence interval for a population mean androportion.	Research and summarise findings with examples on real life application on population and samples. Make notes to summarise learning that includes formulae and solved examples.	https://revisionmaths.com/advanced-level-maths-revision/statistics/sampling https://www.bmj.com/about-bmj/resources-readers/publications/statistics-square-one/3-populations-and-samples https://www.khanacademy.org/math/ap-statistics/gathering-data-ap/sampling-observational-studies/e/identifying-population-sample https://www.youtube.com/watch?v=Etp6km1JQi8 https://www.youtube.com/watch?v=LhOYQFtdc6c
	Mechanics **Work Energy, power** Understand the concept of the work done by a force, and calculate the work done by a constant	Research on the application of power in the following 1. Mechanical Power: such as car engines, train engines, plane jets, etc. 2. Electric Power: all electric appliances, elevator motors,	https://revisionmaths.com/advanced-level-maths-revision/mechanics/work-energy-power https://alevelmaths.co.uk/mechanics/work-energy-and-power/

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	force when its point of application undergoes a displacement not necessarily parallel to the force Understand the concepts of gravitational potential energy and kinetic energy, and use appropriate formulae Understand and use the relationship between the change in energy of a system and the work done by the external forces, and use in appropriate cases the principle of conservation of energy Use the definition of power as the rate at which a force does work, and use the relationship between power, force and velocity for a force acting in the direction of motion Solve problems involving, for example, the instantaneous acceleration of a car moving on a hill against a resistance.	electric car engines, power lines, etc. 3. Power of Light Sources (visible and non-visible): household light bulbs, x-ray machines, gamma ray guns, radio transmitters, etc. 4. Thermal Power: steam engines, and turbine rotation. 5. Atomic Power: Polaris subs, atomic electric power plants, atomic bombs.	https://www.a-levelmathstutor.com/m-kinetics-workenergy.php
Information Technology	Declarative programming(Prolog): • Demonstrate an ability to solve a problem by writing appropriate facts and rules based on supplied information	• Encourage your child to develop a software project to include the following: • Create a software database which can handle the files using Prolog concept.	Prolog: www.learnprolognow.org/lpnpage.php?pageid=implementations Tutorial guide to prolog: www.learnprolognow.org/lpnpage.php?pageid=online

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	• Demonstrate an ability to write code that can satisfy a goal using facts and rules		
Computer Science	**Project Management** Describe disaster recovery management (including: risk analysis, perpetrator analysis, risk testing, quantifying the risk, securing the risk, software protection, password controls, recovery management) **<u>Protyping</u>** • describe prototyping • describe types of prototyping (including: evolutionary, incremental, throw-away, rapid) • discuss the advantages and disadvantages of prototyping • describe Rapid Application Development (RAD) and other methods of software development (including: • the conventional 'waterfall' method)	• Discuss how the possibility of a disaster can be planned for and why this might be important. • Explain the use of prototypes in development, the different types that can be created and how the use of the prototypes can change the development process.	The following could be used for information: <u>http://whatis.techtarget.com/definition/disaster-recovery</u> <u>http://www.ready.gov/business/implementation/IT</u>

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	discuss the advantages and disadvantages of rapid application development (RAD)		
Psychology	Abnormal Psychology Anxiety Disorders Phobias	• Consider **any one** of these phobias (Anxiety disorders) **to illustrate using a case study.** • **Make a powerpoint presentation on** agoraphobia, blood phobia or dog phobia. • Practice Past Papers on related topics	www.psychexchange.co.uk; www.intute.com; www.hola.karoo.net www.psychologyabout.com
Sociology	To assess the role of cults and sects in religion	Research on the different cults and sects in different countries. Make a table to display the countries and the sects of religion in each of the countries. Practice the exam type of questions from the past papers	www.sociology.org.uk www.tes.co.uk

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History	• To research on how important were the personalities of the leaders of the Great Powers in shaping the Cold War?	• Watch all parts of Isaacs' *Cold War.* These differences can be collated and classified: which are points of detail, which are points of argument (i.e. interpretative points, but not sufficient in themselves to identify the historian's overall interpretation), and finally the essential difference in the interpretation as a whole. • Practice writing essay type of questions from the topic given from the past papers	https://www.youtube.com/watch?v=GQbZSNS2mgY
Global perspectives	• Research Report	For your chosen topic for the Research Report: • Write an alternative research question. This should be linked to you're a-level subjects of whatever course you intend to pursue in university. • Research the contrasting perspectives in the issue of focus. • Identify the methods and methodologies you will employ and justify these. Analyse why you believe they are suitable and what shortcomings may be predicted.	Suitable research sources chosen by the learner.

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		• Engage yourself in research as per the methods and methodologies decided upon. • Continue entries in the research log. Ensure that you enter the references as you will use them in your citation. Be more evaluative on the comments section of the log.	