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Aim High Progress Study Programme _ (Year 12) –February _2024

Subject	Focus	Activities	Useful website
Accounting	<ul style="list-style-type: none">• To analyse the structure of limited companies and the sources of raising capital.• To describe the type of businesses that would use of unit, job and batch costing system.• To apply costing concepts to make business decisions and recommendations.	<ul style="list-style-type: none">• Prepare a sway presentation analyzing the structure of limited companies which should include the following –<ul style="list-style-type: none">➤ Features of limited companies➤ Share capital - meaning of and accounting for➤ Capital and revenue reserves➤ Loan capital➤ Preparation of internal final accounts and balance sheets of limited companies• Present a write up on type of businesses that would use of unit, job and batch costing system. <p>OR</p> <ul style="list-style-type: none">• 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
Arabic (Arabs)	TOPIC: مراجعة على أنواع التشبيه والاستعارة	ارسم خريطة ذهنية موضحاً فيها انواع التشبيه مع التمثيل عبر عن المواقف بجمل من إنشائك تحوي التشبيه -	https://www.youtube.com/watch?v=Mat6R0toiql



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	<p>(أثراء)</p> <p>Learning objectives:</p> <p>أن يقارن بين أنواع التشبيهات</p> <p>. و التشبيه التمثيلي</p> <p>أن يحلل التشبيه التمثيلي موضحا موطن الجمال فيه</p> <p>. أن ينتج فقرة تتضمنه -</p> <p>أن يتعرف الاستعارة ويستخدمها في كتابة فقرة *</p> <p>TOPIC</p> <p>البذل</p> <p>Learning objectives:</p> <p>. أن يحدد الطالب البذل في الجمل</p> <p>أن يوظف الطالب البذل في فقرة</p>	<p>مثل لكل نوع من أنواع التشبيه</p> <p>حول الأمثلة من تشبيه تام أو بليغ إلى تشبيه تمثيلي والعكس -</p> <p>يفتح المعلم باب الحوار المنظم للاستماع إلى ملاحظات -</p> <p>الطلاب حول المفاهيم النحوية التي تعلموها</p> <p>(مثل لكل من (البذل -</p> <p>(عمل قطعة ويقوم الطلاب باستخراج (البذل -</p> <p>(قم بعمل خريطة ذهنية (البذل -</p> <p>إجراء اختبار ختامي قصير للتأكد من مستوى التعلم لدى -</p> <p>الطلاب من خلال ورقة عمل</p>	<p>https://www.youtube.com/watch?v=ZwGlXw4ikOM</p> <p>https://www.youtube.com/watch?v=H4MGzCuUKes</p>
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Islamic Studies Arabs	<p>TOPIC: الزواج طريق الاستعفاف - فقه ترتيب الأعمال</p> <p>Learning objectives:</p> <p>يفسر الآيات القرآنية من سورة النور يستنتج التدابير الوقائية لمكافحة الزنا</p> <p>يشرح المقصود بفقه ترتيب الأعمال يستنتج أهمية فقه ترتيب الأعمال</p>	<p>يستنتج المخاطر المترتبة على عدم تيسير الزواج</p> <p>يوضح الأعمال التي تعين على العفة</p> <p>يذكر بعض النماذج من فقه ترتيب الأعمال</p> <p>يطبق فقه ترتيب الأعمال على المسائل المختلفة</p>	<p>https://www.youtube.com/watch?v=gntzG3-nxCc</p> <p>https://www.youtube.com/watch?v=Didl-wo3l18</p>
Islamic Studies Non Arabs	<p>TOPIC: CHASTE FAMILIES, PURE SOCIETY</p> <p>Learning objectives:</p> <p>-TO COMPREHEND THE CONCEPT OF CHASTITY IN ISLAM</p> <p>- TO ANALYZE THE CONSEQUENCES OF CHASTITY ON AN INDIVIDUAL AND SOCIETY</p> <p>TOPIC: POLITNESS WITH THE MESSENGER (P.B.U.H)</p>	<p>Analyze the significance of chastity in the Muslim community. Compare between two community one of them enhance the virtue of Chastity and the other doesn't. What would be the consequences of the acts of the two communities.</p> <p>how would Allah warn those who disobey the Prophet (P.B.U.H)? Will a person who neglects the way of Prophet (P.B.U.H) be punished? How can this negligence ruin our</p>	<p>https://www.youtube.com/watch?v=NgOREMQ-SAY&t=1</p> <p>https://www.youtube.com/watch?v=5mHpAlybFY8&t=6s</p>



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	<p>Learning objectives:</p> <ul style="list-style-type: none"> To elucidateThe importance of obedience to Prophet (P.B.U.H) . To evaluate the benefits of the obedience to Prophet (P.B.U.H) 	<p>lives ruin our lives? Give examples from day-to-day lives.</p>	
Biology	<p>Transport in Plants</p> <ul style="list-style-type: none"> Elaborate the pathways and explain symplastic pathway and apoplastic pathway and Casparian strip) Justify that the term transpiration is an inevitable consequence of gas exchange in plants Explore the factors that affect transpiration rate using leaf impressions, epidermal peels, and grids for determining surface area 	<ul style="list-style-type: none"> Prepare 10 Kahoot Questions on the topic of transport in Plants on Kahoot. Construct a summary table of xylem vessel element structure linked to an explanation of function (this may be done after G(g)and (h) have been taught). Work out which way water will flow to and from cells / environments with given water potentials (no calculations of water potential are expected). Research, (apoplast, symplast and vacuolar) and the role of the endodermis and Casparian strip, by giving a brief written / diagrammatic summary of findings. 	<ul style="list-style-type: none"> https://www.youtube.com/watch?v=B5gGwASEpaY http://www.microscopy-uk.org.uk/mag/artmar00/watermvt.html http://www.mhhe.com/biosci/pae/botany/histology/html/memtrans.htm http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/X/Xylem.html



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	<ul style="list-style-type: none">State that assimilates, such as sucrose and amino acids, move between sources (e.g. leaves and storage organs) and sinks.	<ul style="list-style-type: none">Justify and explain why transpiration is inevitable, and list the advantages of transpiration.	
Business Studies	<p>Topic – Marketing Mix (Promotion and Place)</p> <p>To critically evaluate the methods used to measure the effectiveness of promotional spending.</p>	<p>Research and prepare a presentation on the promotional activities used by a firm.</p> <p>Select 2 large businesses in UAE and Critically evaluate their promotional strategies.</p>	<p>AS and A level Textbook by Peter Stimpson.</p> <p>https://www.tutor2u.net/business/reference/marketing-mix-promotion-revision-presentation</p>
Chemistry	<p>ALCOHOLS, ESTERS AND CARBOXYLIC ACIDS:</p> <ul style="list-style-type: none">To explain the chemistry of alcohols, exemplified by ethanol, in the following reactions: <p>(i) combustion (ii) substitution to give halogenoalkanes (iii) reaction with sodium</p>	<ul style="list-style-type: none">Create a mind map showing reactions of alcohols and also how they relate to other classes of compound already learnt.Practice making molecular models of isomers of alcohols with 3, 4 and 5 carbon atoms.	<p>https://www.chemguide.co.uk/organicprops/alcoholmenu.html</p> <p>https://en.wikibooks.org/wiki/Organic_Chemistry/Alcohols</p> <p>https://www.chegg.com/homework-help/questions-and-answers/classify-alcohols-prima</p>



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	<p>(iv) oxidation to carbonyl compounds and carboxylic acids (v) dehydration to alkenes (vi) formation of esters by esterification with carboxylic acids</p> <ul style="list-style-type: none">• To explain characteristic oxidation reactions of alcohols using various oxidizing agents.• To deduce the presence of a $\text{CH}_3\text{CH}(\text{OH})-$ group in an alcohol from its reaction with alkaline aqueous iodine to form tri-iodomethane <p>CARBONYL COMPOUNDS:</p> <ul style="list-style-type: none">• To describe: (i) the formation of aldehydes and ketones from primary and secondary alcohols respectively using $\text{Cr}_2\text{O}_7^{2-}/\text{H}^+$	<ul style="list-style-type: none">• Solve questions based on examples of primary, secondary and tertiary alcohols, to<ul style="list-style-type: none">- decide which can be oxidised and which cannot- name a suitable oxidising agent- give visible observations- state conditions and give formulae of products. construct balanced chemical equations.• Predict the alcohols from a given list, which will give positive iodoform test and to construct balanced chemical equations.• Prepare a power point to compare and contrast the reactions of aldehydes and ketones.• Choose the compounds which give positive iodoform test, from a given list of organic substances.• Carry out analysis of aldehydes and ketones in the laboratory, using	<p>https://www.youtube.com/watch?v=2r-EBwCLogw</p> <p>http://www.a-levelchemistry.co.uk/45-compounds-containing-the-carbonyl-group.html</p> <p>https://alevelchemistry.co.uk/notes/carbonyl-compounds/</p>
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	<p>(ii) the reduction of aldehydes and ketones, e.g. using NaBH_4 or LiAlH_4</p> <p>(iii) the reaction of aldehydes and ketones with HCN and NaCN.</p> <ul style="list-style-type: none">• To describe the mechanism of the nucleophilic addition reactions of hydrogen cyanide with aldehydes and ketones• To interpret the use of 2,4-dinitrophenylhydrazine (2,4-DNPH) reagent to detect the presence of carbonyl compounds• To deduce the nature (aldehyde or ketone) of an unknown carbonyl compound from the results of simple tests (Fehling's and Tollens' reagents; ease of oxidation)• To describe the reaction of $\text{CH}_3\text{CO}-$ compounds with	<ul style="list-style-type: none">- Tollens reagent- Fehlings solution- 2,4-DNP- Schiffs reagent <ul style="list-style-type: none">• Solve practice problems on reactions of aldehydes and ketones- To identify products- Reaction conditions- Write balanced chemical equations. <ul style="list-style-type: none">• Produce a poster describing the nucleophilic addition mechanism.• Model the nucleophilic addition mechanism using molecular models and modelling clay. <ul style="list-style-type: none">• Solve questions with a wide variety of reactions of carboxylic acids,<ul style="list-style-type: none">○ To predict products○ Reaction conditions○ Construct balance chemical equations.	<p>http://chubbyrevision-a2level.weebly.com/compounds-containing-the-carbonyl-group.ht</p> <p>https://www.chemguide.co.uk/organicprops/acidmenu.html</p> <p>https://www.youtube.com/watch?v=gmM1jX-n7vg</p> <p>https://www.proprofs.com/quiz-school/story.php?title=nje4yode4</p> <p>https://global.oup.com/uk/orc/pharmacy/ifp_chemistry/01student/mcqs/ch06/</p>
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	<p>alkaline aqueous iodine to give tri-iodomethane</p> <ul style="list-style-type: none">• To describe the formation of carboxylic acids from alcohols, aldehydes and nitriles• To outline the reactions of carboxylic acids in the formation of:<ul style="list-style-type: none">- salts, by the use of reactive metals, alkalis or carbonates- alkyl esters- alcohols, by use of LiAlH_4- acyl chlorides• To explain acid and base hydrolysis of esters. <p>Equilibrium:</p> <ul style="list-style-type: none">• To state Le Chatelier's principle and apply it to deduce the effect of changes in temperature, concentration or pressure on a system at equilibrium.	<ul style="list-style-type: none">• Prepare a Ted-Ed lesson depicting Le Chatelier's principle and its application• Make a mind map to show the effect of changes in temperature, concentration and pressure on a system at equilibrium• Solve complex questions including numerical based on calculating equilibrium constant K_c and K_p <p>Make a Power-Point presentation on equilibrium by acids and bases.</p>	<p>http://www.a-levelchemistry.co.uk/42-equilibria.html</p> <p>http://www.chem1.com/acad/webtext/chemeg/Eq-01.html</p> <p>http://www.ocr.org.uk/Images/261544-equilibrium-delivery-guide.pdf</p> <p>https://www.chemguide.co.uk/physical/equilibmenu.html</p>
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	<ul style="list-style-type: none">• To state whether changes in temperature, concentration or pressure or the presence of a catalyst affect the value of the equilibrium constant• To deduce the expressions for equilibrium constants in terms of concentration K_c and partial pressure, K_p.		
Economics	<ul style="list-style-type: none">• To discuss the causes and changes in the terms and trade.• To discuss the importance of protectionism.• To discuss the causes of imbalances in BOP	<p>Research on</p> <ul style="list-style-type: none">• research your own or another allocated country's changes in the terms of trade over the last twenty years• determine whether they have improved or deteriorated over this period and whether they have been volatile or stable• assess the implications for the future development of their given economy.• the impact of each method in solving (e.g.) a balance of payments deficit in their own country• Research and write a report on the relative importance of the identified arguments for protectionism in	<p>www.economicsonline.co.uk/Global_economics/Policies_to_promote_development.html</p> <p>www.businesseconomics.com/country-data.html</p> <p>https://www.tutor2u.net/economics/reference/protectionism</p> <p>http://www.economicsonline.co.uk/Global_economics/Trade_protectionism.html</p> <p>www.economicsonline.co.uk/Global_economics/The_balance_of_payments.html</p> <p>www.economicshelp.org/blog/5776/trade/uk-balance-of-payments</p> <p>www.businesseconomics.com/country-data.html</p>



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		<p>relation to their own country's economy.</p> <ul style="list-style-type: none">the causes of imbalances for each component in the current account using source material from textbooks and the web links provided, making notes on the explanations they find.	
Psychology	<p>Milgram (Obedience)</p> <p>To describe and explain the background to the study, the sample and the selection strategy adopted and the findings/ explanations of the study.</p>	<p>Share either some study notes or the original version available at http://library.nhsggc.org.uk/mediaAssets/Mental%20Health%20Partnership/Peper%202%2027th%20_Nov%20Milgram_Study%20KT.pdf or https://drive.google.com/file/d/1DaPmu5ke8KJxlZCmYJAmz1cuDP4Eqkl/view (differentiate) on the background, the sample, the method and procedure and learners read, checking on their individual levels of accuracy and understanding. An abridged version of the study can be found at http://www.holah.karoo.net/milgram.htm</p>	<p>www.simplypsychology.org/milgram.html.</p> <p>http://www.holah.karoo.net/milgram.htm</p>
Physics	<p>Stationary waves</p> <p>Diffraction</p> <p>Interference</p> <p>The diffraction grating</p>	<p>Explain the formation of a stationary wave using a graphical method, and identify nodes and antinodes.</p> <p>Demonstrate the diffraction of monochromatic light using a laser and a single slit.</p> <p>Understand the conditions required if two-source</p>	<p>Standing waves: https://studynova.com/lecture/physics/waves/standing-waves/</p> <p>https://studynova.com/lecture/physics/waves/slit-diffraction/</p>



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	<p>Atoms, nuclei and radiation</p> <p>Fundamental particles</p>	<p>interference fringes are to be observed.</p> <p>Derive the equation that relates wavelength and the diffraction spacing</p> <p>Describe the composition, mass and charge of α-, β- and γ-radiations.</p> <p>Understand that a quark is a fundamental particle and that there are six flavours (types) of quark: up, down, strange, charm, top and bottom.</p>	<p>Alpha Decay simulation: https://phet.colorado.edu/en/simulation/legacy/alpha-decay</p> <p>Beta Decay simulation: https://phet.colorado.edu/en/simulation/legacy/beta-decay</p>
Sociology	<p>Sociology as a Science.</p> <p>Students will be able evaluate Sociology as science</p>	<p>Examine the debate surrounding sociology as a science. Can it be considered a science? Who claims it can and why? Evaluate this though the claims that it cannot be a science and discuss why not?</p>	<p>Useful video: https://youtu.be/ZlwyNldgJBE (Crash Course Sociology introduces sociological research and the scientific method approach)</p> <p>Useful website: www.shortcutstv.com/blog/wp-content/uploads/2017/04/Positivism-v-Interpretism.pdf (comprehensive notes comparing the two approaches</p>



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English Language	<u>WRITING IN THE STYLE OF THE AUTHOR.</u> <ul style="list-style-type: none">• To enhance critical thinking skills.• To further enhance speech writing skills.	Watch the following video and create a speech in the style of the speaker shown.	Abraham Lincoln Gettysburg speech (Jeff Daniels) - YouTube
Art and Design	AO3 and AO4 Presenting the developed ideas through investigations informed by contextual and other sources, demonstrating analytical and critical understanding. Present a personal and coherent response that realises intentions and, where appropriate, makes connections between visual and other elements	Communication: purposeful trials of art works to communicate, from the simplest sketch to the most complex work. The need to understand the relationship about the chosen subject and the works that will build on critical and purposeful influences transformed into original outcome.	www.studentartguide.com
Information Technology	Theory : <ul style="list-style-type: none">• To evaluate the different causes of digital divide between people and regions.• To discuss Master and transaction files Practical :	Solve past paper questions based on the given topics . Create a mind map on ways to reduce digital divide. Compare Master and Transaction files Create a video using audacity and Movie maker	Audacity, Movie maker www.teach-ict.com



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	<ul style="list-style-type: none">• To use sound and video editing tools• To use advanced spreadsheet functions• To Normalize a data base		
Computer Science	<ul style="list-style-type: none">• To show how data are transferred between various components of the computer system using the address bus, data bus and control bus• To determine how factors, contribute to the performance of the computer system.	<ul style="list-style-type: none">• Create a mind map to show how data are transferred between various components of the computer system using the address bus, data bus and control bus.• Compare and evaluate how factors contribute to the performance of the computer system.• Processor type and number of cores• the bus width• clock speed• cache memory	https://www.bbc.co.uk/bitesize/guides
Travel and Tourism	<p>Topic: Reason for the growth of sustainable tourism</p> <p>To evaluate the measures undertaken by the government to support the growth of sustainable tourism</p>	<ul style="list-style-type: none">• Read different case studies and prepare a short talk to rest of the group. The case studies could include Costa Rica, Namibia, Kerala.• https://www.visitcostarica.com/en/costa-rica/things-to-do/ecotourism• https://www.southerndestinations.com/africas-finest-namibias-top-5-eco-retreats/	<ul style="list-style-type: none">• https://www.visitcostarica.com/en/costa-rica/things-to-do/ecotourism• https://www.southerndestinations.com/africas-finest-namibias-top-5-eco-retreats/• https://www.keralatourism.org/ecotourism



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		<ul style="list-style-type: none">• https://www.keralatourism.org/ecotourism• Class discussion on the different products and services that are eco in the case studies – accommodation activities and packages. <p>Analyse: How to respect the environment and local culture.</p>	
Statistics 1	<u>Normal Distribution</u> <ul style="list-style-type: none">• Understand the use of the normal distribution to model a continuous random variable, and use normal distribution tables.• Be able to evaluate probabilities and solve problems involving normal distribution.• Recall conditions under which the normal distribution can be used as an approximation to the binomial distribution, and use this approximation, with a continuity correction, in solving problems.	<p>Research and summarise findings with examples on real life application of Normal distribution.</p> <p>Make notes to summarise learning that includes formulae and solved examples.</p>	<p>https://www.youtube.com/watch?v=y6wofZpuxfE</p> <p>https://www.youtube.com/watch?v=odwfM7LjCVY</p> <p>https://www.youtube.com/watch?v=-hyuDHGb9Ec</p> <p>http://onlinestatbook.com/2/normal_distribution/normal_approxM.html</p>



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<u>Mathematics</u>	<u>Pure Mathematics 1</u> Integration: <ul style="list-style-type: none">- Apply and use integration as the reverse process of differentiation, and integrate $(ax + b)^n$ (for any rational n except -1), together with constant multiples, sums and differences.- To evaluate a definite integral.- To find the area under a curve To find the area between two curves. To find the volume of revolution about one of the axes.	<u>Pure Mathematics</u> Research on the real-life applications of integration. Physics - Apply integration to find distance from velocity, or finding velocity using acceleration. Use integration to find the volume of an object with curved sides, e.g. wine barrels. Volume of revolution may involve a region not bounded by the axis of rotation, e.g. the region between $y = (9 - x)^2$ and $y = 5$ rotated about the x-axis.	www.mathsisfun.com/calculus/integration-rules.html https://www.tes.com/teaching-resource/a-level-maths-c2-definite-integration-worksheet-6146778 https://www.tes.com/teaching-resource/a-level-maths-c2-definite-integration-worksheet-6146778 https://www.tes.com/teaching-resource/integration-powerpoint-6402321
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