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Aim High Progress Study Programme _ (Year 12) February _2025

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.	<p>www.myaccountinglab.com,</p> <p>www.bized.co.uk</p> <p>www.cie.org.uk,</p> <p>http://www.accounting-world.com/</p> <p>https://www.investopedia.com/</p> <p>https://study.com/search/text/academy.html?q=accounting#/topresults/accounting</p>
Arabic (Arabs)	TOPIC: التشبيه التمثيلي	ارسم خريطة ذهنية موضحاً فيها انواع التشبيه مع التمثيل عبر عن المواقف بجمل من إنشائك تحوي التشبيه -	<p>https://mawdoo3.com/%D8%B4%D8%B1%D8%AD%D8%A7%D9%84%D8%AA%D8%B4%D8%A8%</p>



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	<p>Learning objectives:</p> <p>أن يقارن بين أنواع التشبيه والتشبيه التمثيلي أن يحلل التشبيه التمثيلي موضحا موطن الجمال فيه أن ينتج فقرة تتضمنه .</p> <p>TOPIC</p> <p>البدل</p> <p>Learning objectives:</p> <p>أن يحدد الطالب البدل في الجمل أن يوظف الطالب البدل في فقرة</p>	<p>مثل لكل نوع من أنواع التشبيه حول الأمثلة من تشبيه تام أو بليغ إلى تشبيه تمثيلي والعكس.</p> <p>يفتح المعلم باب الحوار المنظم للاستماع إلى ملاحظات الطلاب حول المفاهيم النحوية التي تعلموها (مثل لكل من (البدل - (عمل قطعة ويقوم الطلاب باستخراج (البدل - (قم بعمل خريطة ذهنية (البدل - إجراء اختبار ختامي قصير للتأكد من مستوى التعلم لدى - الطلاب من خلال ورقة عمل</p>	<p>https://mawdoo3.com/%D8%A7%D9%87%D8%AA%D9%85%D8%AB%D9%8A%D9%84%D9%8A</p> <p>https://mawdoo3.com/%D8%AE%D8%A7%D8%B5:%D8%A8%D8%AD%D8%AB%D9%85%D9%88%D8%B6%D9%88%D8%B9?q=%D8%A7%D9%84%D8%A8%D8%AF%D9%84</p>
<p>Islamic Studies</p> <p>Arabs</p>	<p>الزواج طريق الاستعفاف - فقه ترتيب الأعمال</p> <p>Learning objectives:</p> <p>يفسر الآيات القرآنية من سورة النور</p>	<p>يستنتج المخاطر المترتبة على عدم تيسير الزواج يوضح الأعمال التي تعين على العفة</p>	<p>https://www.youtube.com/watch?v=gntzG3-nxCc</p>



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	<p>يستنتج التدابير الوقائية لمكافحة الزنا</p> <p>يشرح المقصود بفقته ترتيب الأعمال</p> <p>يستنتج أهمية فقه ترتيب الأعمال</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=Didl-wo3l18</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:<ul style="list-style-type: none">(i) combustion(ii) substitution to give halogenoalkanes(iii) reaction with sodium(iv) oxidation to carbonyl compounds and carboxylic acids(v) dehydration to alkenes(vi) formation of esters by esterification with carboxylic acidsTo explain characteristic oxidation reactions of alcohols using various oxidizing agents.	<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.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 cannotname a suitable oxidising agent	<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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	<ul style="list-style-type: none">• 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:<ul style="list-style-type: none">(i) the formation of aldehydes and ketones from primary and secondary alcohols respectively using $\text{Cr}_2\text{O}_7^{2-}/\text{H}^+$(ii) the reduction of aldehydes and ketones, e.g. using NaBH_4 or LiAlH_4(iii) the reaction of aldehydes and ketones with HCN and NaCN.• 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	<ul style="list-style-type: none">- give visible observations- state conditions and give formulae of products. construct balanced chemical equations. <ul style="list-style-type: none">• Predict the alcohols from a given list, which will give positive iodoform test and to construct balanced chemical equations. <ul style="list-style-type: none">• 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<ul style="list-style-type: none">- Tollens reagent- Fehlings solution- 2,4-DNP- Schiffs reagent	<p>https://www.youtube.com/watch?v=2r-EBwCLogw</p> <p>http://www.a-levelchemistry.co.uk/45-</p>
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	<ul style="list-style-type: none">• 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 alkaline aqueous iodine to give tri-iodomethane• 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	<ul style="list-style-type: none">• Solve practice problems on reactions of aldehydes and ketones<ul style="list-style-type: none">- To identify products- Reaction conditions- Write balanced chemical equations.• Produce a poster describing the nucleophilic addition mechanism.• Model the nucleophilic addition mechanism using molecular models and modelling clay.• Solve questions with a wide variety of reactions of carboxylic acids,<ul style="list-style-type: none">o To predict productso Reaction conditionso Construct balance chemical equations. <p>Prepare a Ted-Ed lesson depicting Le Chatelier's principle and its application</p> <ul style="list-style-type: none">• Make a mind map to show the effect of changes in temperature,	<p>compounds-containing-the-carbonyl-group.html</p> <p>https://alevelchemistry.co.uk/notes/carbonyl-compounds/</p> <p>http://chubbyrevision-a2level.weebly.com/compounds-containing-the-carbonyl-group.html</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=njeyode4</p> <p>https://global.oup.com/uk/orc/p/harmacy/ifp_chemistry/01student/mcqs/ch06/</p>
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	<p>temperature, concentration or pressure on a system at equilibrium.</p> <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.• To calculate the K_c and K_p.• To describe the Bronsted-Lowry theory of acids and bases.	<p>concentration and pressure on a system at equilibrium</p> <ul style="list-style-type: none">• Solve complex questions including numerical based on calculating equilibrium constant K_c and K_p• Make a Power-Point presentation on equilibrium by acids and bases.	<p>http://www.a-levelchemistry.co.uk/42-equilibria.html</p> <p>http://www.chem1.com/acad/w ebtext/chemeq/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>
Business Studies	<p>Topic – Absorption costing and Marginal Costing</p> <p>To critically evaluate the differences between absorption costing and marginal costing, including their treatment of fixed and variable costs.</p>	<ul style="list-style-type: none">• Research and prepare a presentation on how different businesses and industries may choose to allocate costs in different ways and the problems associated with allocation,• Travel industry – how can the fixed cost of a bus/airplane be allocated to individual passenger prices?	<p>AS and A level Textbook by Peter Stimpson.</p> <p>www.tutor2u</p> <p>www.dineshbakshi.com</p> <p>www.cie.org.uk</p> <p>www.myaccountinglab.com</p>



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		<ul style="list-style-type: none">• Coca-Cola – how can indirect costs be allocated across the range of drinks produced by the brand? <p>Share your findings in the form of a presentation.</p>	
Economics	<ul style="list-style-type: none">• To review key topics like the reasons for international trade, methods and effects of government intervention in markets, Government macroeconomic policy objectives, Introduction to circular flow of income, Fiscal policy, monetary policy and supply –side policy.• To analyse mark schemes and examiner reports to help students learn how to structure well-written, high-quality answers.	<ul style="list-style-type: none">• Select past paper questions covering key topics such as exchange rates and the methods and effects of government intervention in markets.• Set a timer (e.g., 15 minutes for structured 8-mark questions and 25 minutes for 12-mark questions) and attempt the questions within the specified time limit.	<p>www.papacambridge.com</p> <p>www.dynamicpapers.com</p> <p>www.tutot2u</p> <p>www.caie.org</p>



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Physics	<p><u>Particle and Nuclear Physics</u></p> <p>Atoms, Nuclei and Radiation Fundamental particles</p> <p>Describe a simple quark model of hadrons in terms of up, down and strange quarks and their respective antiquarks</p> <p>Understand that a hadron maybe either a baryon or a meson</p> <p>Describe the composition, mass and charge of α, β- and γ-radiations</p>	<p>Research on the properties of α-, β- and γ-radiations</p> <p>Describe β^- and β^+ decay in terms of a simple quark mode</p> <p>Describe changes to quark composition that take place during β^- and β^+ decay</p>	<p>https://www.s-cool.co.uk/a-level/physics/particle-classification-and-interactions/revise-it/the-quark-model-of-hadrons</p> <p>http://www.particleadventure.org/npe.html</p> <p>https://www.bbc.co.uk/bitesize/guides/zsnssbk/revision/5</p>
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Sociology	Social Identity and changes	Evaluate the changing class, gender, ethnic and age identities	AS &A level Sociology Coursebook
English Language	<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	https://study.com/academy/lesson/practice-analyzing-and-interpreting-a-speech.html
Art and Design	AO3 Develop: Develop ideas through investigations informed by contextual and other sources, demonstrating analytical and critical understanding response that realises intentions and, where appropriate, makes connections between visual and other elements.	<ul style="list-style-type: none"> Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops 	www.studentartguide.com
Information Technology	<p>Theory :</p> <ul style="list-style-type: none"> To evaluate the different causes of digital divide between people and regions. To discuss Master and transaction files <p>Practical :</p> <ul style="list-style-type: none"> To use sound and video editing tools To use advanced spreadsheet functions To Normalize a data base 	<ul style="list-style-type: none"> Solve past paper questions based on the given topics . Create a mind map on ways to reduce digital divide. Compare Master and Transaction files <p>Create a video using audacity and Movie maker</p>	Audacity Movie maker



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Computer Science	<p>Paper 12</p> <p>You are part of a design team tasked with creating a billboard advertisement for a new brand launch. Compare the two methods of storing images and the relative merits and drawbacks. identify whether a vector or bitmap is more appropriate and to justify their choice.</p>	<p>Decide whether a vector or bitmap image is more appropriate for the product photograph. Discuss the need for detail and color depth in representing the product accurately.</p> <p>Evaluate whether vector or bitmap is better for the background graphics. Consider the complexity of the design and the need for scalability or editing flexibility.</p>	<p>https://www.scan2cad.com/blog/tips/bitmap-vs-vector/</p>
Pure Mathematics	<p><u>Pure Mathematics 1</u></p> <p>Integration:</p> <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 <p>To find the area between two curves. To find the volume of revolution about one of the axes.</p>	<p><u>Pure Mathematics</u></p> <p>Research on the real-life applications of integration.</p> <ul style="list-style-type: none"> • 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 	<p>www.mathsisfun.com/calculus/integration-rules.html</p> <p>https://www.tes.com/teaching-resource/a-level-maths-c2-definite-integration-worksheet-6146778</p> <p>https://www.tes.com/teaching-resource/a-level-maths-c2-definite-integration-worksheet-6146778</p>



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		rotation, e.g. the region between $y = (9 - x)^2$ and $y = 5$ rotated about the x-axis.	https://www.tes.com/teaching-resource/integration-powerpoint-6402321
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