



Subject	Focus	Activities	Useful website
Accounting	<ul> <li>To Interpretation of the meaning and features of consignment accounts.</li> <li>To explaining why consignment is not a sale.</li> <li>To Explain the terms used in consignment accounts.</li> </ul>	<ul> <li>Prepare a Prezi presentation comprising the following –</li> <li>Interpretation of the meaning and features of consignment accounts.</li> <li>Reasons explaining why consignment is not a sale.</li> <li>Explain the terms used in consignment accounts.</li> <li>Present a report on the usefulness of financial appraisal techniques in investment decision.         <ul> <li>OR</li> </ul> </li> <li>Prepare a Ted Ed Flipped Lesson on the topic.</li> </ul>	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	قصيدة: المساء - خليل مطران نص وصفي: الصغيران - الرافعي مقال: أي الناس أسعد؟ نحو: الأسماء الخمسة والأفعال الخمسة	أن ينثر الطالب الأبيات نثرًا أدبيًا أن يدلل على عاطفة الشاعر في الأبيات أن يستخرج مظاهر البلاغة من الأبيات أن يحلل أنواع الوصف في القصة أن يضع نهاية مختلفة للقصة	





### Aim High Progress Study Programme \_ (Year 13) January \_2024

# )Learning objectives: أن ينثر الطالب الأبيات نثرًا أدبيًا أن يدلل على عاطفة الشاعر في الأبيات أن يستخرج مظاهر البلاغة من الأبيات أن يحلل أنواع الوصف في القصة أن يضع نهاية مختلفة للقصة أن يميز ملامح الشخصيات في القصة أن يقارن نص الصغير إن بنص آخر أن يدلل على رأى الكاتب في المقال أن ينقد الأدلة التي ساقها الكاتب في المقال أن يضيف أدلة جديدة من إبداعه للمقال أن يقارن بين مقال در استه ومقال آخر

أن يعرب الأسماء الخمسة و الأفعال الخمسة ويميز

أن يميز ملامح الشخصيات في القصة أن يقارن نص الصغيران بنص آخر أن يدلل على رأي الكاتب في المقال أن ينقد الأدلة التي ساقها الكاتب في المقال أن يضيف أدلة جديدة من إبداعه للمقال أن يقارن بين مقال دراسته ومقال آخر أن يعرب الأسماء الخمسة والأفعال الخمسة ويميز بينها

 $\frac{\text{https://www.youtube.com/watch?v=f8Peo7zN6}}{\text{yQ}}$ 

https://www.youtube.com/watch?v=EKbFFHYQ Yi8&t=113s

https://www.youtube.com/watch?v=5Dy3vwxv ptw&t=11s





Jalamaia Otuvalia -	1	T	T
Islamic Studies	الله نور السماوات والأرض :TOPIC	عمل مشروع عن أسماء الله تعالى الحسني	
Arabs	Learning objectives:	عمل لوحات عن دلالات اسم الله تعالى النور	https://www.youtube.com/watch?v=QXdyT-
	أن يفسر الآيات الكريمة من سورة -1 ألنور تفسيرًا تحليليلا	البحث عن آداب الدعاء بأسماء الله تعالى الحسنى	<u>crNBE</u>
	أن يبين أهمية علاقة المؤمن بأسماء -2 الله الحسنى وصفاته الفضلى		
	الأدب مع الرسول محمد صلى الله عليه :TOPIC		
	Learning objectives:		
	أن يعدد مظاهر تكريم الرسول -1 صلى الله عليه وسلم		
	أن يستدل من السيرة النبوية على -2 حسن أخلاق النبي صلى الله عليه وسلم مع الجميع		https://www.youtube.com/watch?v=we67fxbyxc







البحث عن علاقة النبي صلى الله عليه وسلم مع المخالفين له .	
الاستدلال من القرآن الكريم على وجوب توقير النبي صلى الله عليه وسلم	
عمل لوحات عن كيفية الاقتداء بالنبي صلى الله عليه وسلم . في جميع أحواله	





Islamic Studies	TOPIC: THE SLANDER AGAINST AYESHA (RA)		
Non Arabs	AND MORAL LESSON.	SEARCH AN EXAMPLE FROM SEERAH THAT SHOWS HOW DOES SPREADING RUMOR IS DANGEROUS. HOW CAN WE	
	Learning objectives:	SAVE OURSELVES FROM BELIEVING THE RUMOURS? RECORD THE VIDEO.	
	To appreciate the •		
	magnificent character of		
	Ayesha(RA)		
	To comprehend the consequences of		
	rumours on individual and society.		









	<ul> <li>DNA at specific sites in the genome.</li> <li>To describe and explain the steps involved in the polymerase chain reaction (PCR).</li> <li>To describe and explain how gel electrophoresis is used to separate DNA fragments of different lengths.</li> <li>To outline how microarrays are used in the analysis of genomes and in detecting mRNA in studies of gene expression</li> </ul>		
Business Studies	To analyse the impact of sales forecasting on business decisions	Use an example of a seasonal business that might use time series analysis data, e.g.an ice cream manufacturer. Create a mind map of the quantitative and qualitative factors that might affect sales forecasting, such as: previous sales data, weather, economic data, consumer taste and fashion, and decisions of competitors.	www.bized.co.uk www.tutor2u.net Newspapers and Magazines Text Book





Chemistry	Electrochemistry:  • To explain the mathematical	Evaluate the impact of qualitative factors when the business makes decisions about future sales [20 marks]  • Solve at least five questions making use of F = Le to predict the identity of	https://www.chemguide.co.uk/inorganic
	<ul> <li>relationship F = Le</li> <li>To outline the working of Standard Hydrogen Electrode</li> <li>To determine the EMF of the electrochemical cell (one half cell being metal/metal ion cell, non-metal/non-metal ion cell, ion/ion cell and the other half cell as SHE)</li> <li>To outline the direction of redox reaction using the electrochemical cell value</li> <li>To apply the Nernst equation to predict quantitatively how</li> <li>the value of an electrode potential varies with the concentration of the aqueous ion.</li> </ul>	<ul> <li>a product during electrolysis</li> <li>Construct electrochemical cell using Standard Hydrogen Electrode as one of the half cell</li> <li>Research and prepare a write-up on determining the feasibility of a reaction based upon the electrochemical cell value</li> <li>Plan an investigation to be conducted in a school laboratory to determine the cell potential under non-standard conditions (use Nernst equation)</li> <li>on electrochemical cell value and feasibility of a reaction</li> <li>Practice interrelating standard Gibbs free change with the electrochemical cell value</li> </ul>	/electrolysis/basiccalcs.html  https://byjus.com/chemistry/standard-hydrogen-electrode/  http://www.dynamicscience.com.au/tester/solutions1/chemistry/redox/electrochemicalcellfromequan.htm https://chem.libretexts.org/Bookshelves/Introductory Chemistry/Book%3A Introductory Chemistry/Book%3A Introductory Chemistry (CK-12)/23%3A Electrochemistry/23.06%3A Calculating Standard Cell Potentials  https://www.chem.tamu.edu/class/fyp/stone/tutorialnotefiles/electro/nernst.htm  http://www.docbrown.info/page01/ExIndChem/electrochemistry11.htm





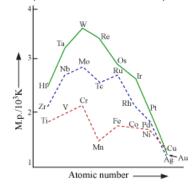
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- To outline the direction of redox reaction using the electrochemical cell value
- To understand and use the equation  $\Delta G^{\ominus} = -nE_{cell}^{\ominus} F$

#### **Transition elements:**

- Explain the properties of transition metals. Also, compare properties with s block elements.
- describe and explain the reactions of transition elements with ligands to form complexes, including the complexes of copper(II) and cobalt(II) ions with water and ammonia molecules and hydroxide and chloride ions
- Describe the shapes of transition metal complexes.
- explain qualitatively that ligand exchange may occur, including the complexes of copper(II) ions with water and

- Practice writing electronic configuration of transition elements and ions.
- Explore the shapes of d subshell.
- Analyse the graph and suggest possible reason for the trends.
- Prepare a Power-Point presentation



- https://xtremepapers.xyz/revision/alevel/chemistry/inorganic/transition/feat ures.php
- https://chem.libretexts.org/Textbook M aps/General Chemistry/Map%3A General Chemistry (Petrucci et al.)/23%3A The Transition Elements/23.1%3A General Properties of Transition Metals
- http://www.docbrown.info/page07/ASA 2ptable2.htm
- https://www.memrise.com/course/1610 10/ocr-chemistry-a2-f325-definitions/3/
- https://revisionworld.com/a2-level-levelrevision/chemistry/periodictable/transition-metals
- http://chemed.chem.purdue.edu/gench em/topicreview/bp/ch12/complex.php





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- ammonia molecules and hydroxide and chloride ions
- explain the origin of colour in transition element complexes resulting from the absorption of light energy as an electron moves between two nondegenerate d orbitals using non degenerate concepts.
- Describe, in qualitative terms, the effects of different ligands on absorption, and hence colour, using the complexes of copper(II) ions with water and ammonia molecules and hydroxide and chloride ions as ligands
- Describe and explain ligand exchanges in terms of competing equilibria
- Deduce expressions for the stability constant of a ligand substitution using Kstab and explain its importance.
- Explain ligand exchange in terms of stability constants, Kstab, and understand that a

Sc	Ti	٧	Cr	Mn	Fe	Co		Cu	Zn
	+2	+2	+2	+2	+2	+2		+2	+2
+3	+3	+3	+3	+3	+3	+3	+3	+3	
	+4	+4	+4	+4	+4	+4	+4		
	+5	+5	+5	+5	+5	+5			
			+6	+6	+6				

 Research about ligands, prepare a flow chart to show various types of ligands. Understand the differences between coordination number and valency.

Unidentate Ligand	Complex	Shape & Bond Angle	Coordination Number
Water	[Cu(H <sub>2</sub> 0) <sub>6</sub> ] <sup>2+</sup>	Octahedral 90	6
Ammonia	$[Co(NH_3)_4(H_20)_2]^{2+}$	Octahedral 90	6
Chloride ion	[Cu(Cl) <sub>4</sub> ] <sup>2-</sup>	Tetrahedral 109.5	4
Ammonia/Chloride	$[Pt(NH_3)_2(CI)_2]$	Square Planar 90	4
Cyanide <sup>-</sup>	[Cu(CN) <sub>4</sub> ] <sup>2</sup> -	Tetrahedral 109.5	4
Cyanide, CN	[Ni(CN) <sub>4</sub> ] <sup>2</sup> ·	Square Planar 90	4
Examples of Bide	Ethanedioat	e is able to form <u>2</u>	
C—C 2 Etha	Ethanedioat	oonds with the metal ion 2 lone pairs of electrons	





	large Kstab is due to the formation of a stable complex ion	Practice writing the equations of transition metals complexes with various ligands and suggest  • observable changes. Write an expression for <i>Kstab</i> .	
Physics	<ul> <li>Magnetic fields</li> <li>To understand forces between current-carrying conductor and predict the direction of the forces.</li> <li>To know the direction of force on a charge moving in a magnetic field.</li> <li>To define magnetic flux density and the tesla and solve problems using the equation F = BIL sin θ, with directions as interpreted by Fleming's left-hand rule</li> <li>To derive the expression V<sub>H</sub> = BI / ntq for the Hall voltage, where t = thickness</li> </ul>	<ul> <li>Find why two parallel currents attract and two antiparallel currents repel.</li> <li>Research on how Hall voltage creates a voltage difference across an electrical conductor</li> <li>Describe the working of a hall probe</li> <li>State and explain in terms of the kinetic model</li> <li>Examine what happens to the pressure inside a tyre when more molecules at the same temperature are pumped into the tyre</li> <li>Explain Boyle's law and applications</li> <li>State the ideal gas equation and explain kinetic model</li> </ul>	https://www.britannica.com/science/Hall-effect https://courses.lumenlearning.com/physics/cha pter/22-10-magnetic-force-between-two- parallel-conductors/  https://courses.lumenlearning.com/boundless- physics/chapter/magnetic-force-on-a-moving- electric-charge/





	Ideal Gases	State the relation between	
	<ul> <li>Solve problems using the equation of state for an ideal gas</li> <li>Interpret Brownian motion in terms of the movement of molecules</li> <li>State the assumptions of the kinetic theory of gases</li> <li>Deduce a relationship between pressure, volume and the microscopic properties of the molecules of a gas</li> <li>relate the kinetic energy of the molecules of a gas to its temperature</li> </ul>	temperature and molecular kinetic theory	https://www.youtube.com/watch?v=ZwXtPW0gdD0  http://hyperphysics.phy-astr.gsu.edu/hbase/thermo/firlaw.html  http://www.physics.usyd.edu.au/super/life_scie_nces/TP/TP-rev-questions.pdf
Economics	To analyze the Government Micro-economic intervention	Complete any 2 of the following tasks. You could work in groups  1. Find examples of firms that have either been nationalized or privatized, in your own country (or any other economy) and write a well-researched Article on whether you	<ul> <li>www.tutor2u.net/economics/ref erence/development-strategies- privatisation</li> <li>https://drive.google.com/file/d/1Lut1LR 680vBfW- DUgrOx0JpXxTMJqwMh/view?usp=sharing</li> </ul>





8 8	would make a strong case for privatization or Nationalization.  2. Video Link & Document Link
	https://www.tutor2u.net/economics/referen ce/development-strategies-privatisation https://drive.google.com/file/d/1Lut1LR68Ov
	BfW- DUgrOx0JpXxTMJqwMh/view?usp=sharing
	3. Research on the Kyoto Protocol and carbon trading and discuss how governments might intervene to correct market failure arising due to climate change issues. Examine the
	effectiveness of government intervention to correct market failure. Present your findings as an Editorial.  4. Research on the Behavioural insights
	and 'nudge' theory and analyze the ways governments use 'nudge' theory to influence consumer behaviour for efficient resource allocation. Produce a Report based on your findings.





Pure Mathematics Integration	<ul> <li>Extend the idea of 'reverse differentiation' to include the integration of e ax+b, 1/ax b, In(ax+b), sin(ax + b), cos(ax + b), sec² (ax + b) and 1/(x²+a²)</li> <li>Use trigonometrical relationships in carrying out integration</li> <li>Integrate rational functions by means of decomposition into partial fractions</li> </ul>	<ul> <li>5. Prepare a Google slides PPT on Government measures to correct market failure and achieve efficient resource allocation. Analyze whether government intervention is the second -best policy since governments can also fail.</li> <li>6. Critically evaluate the government policies aimed at redistribution of income and wealth and assess their effectiveness. Use real world examples from any country of your choice. Prepare a PPT or Report.</li> <li>Research on the application of Integration in Architecture: An Architect Engineer uses integration in determining the amount of the necessary materials to construct curved shape constructions.</li> <li>Application in Medical Science: Biologists use differential calculus to determine the exact rate of growth in a bacterial culture when different variables such as temperature and food source are changed.</li> </ul>	https://igcsemathsin.files.wordpress.com/2018 /04/p3-differential-equations-exercise-1.pdf https://igcsemaths.in/2021/02/23/a-level- mathematics-9709-differentiation-integration/ https://drive.google.com/file/d/1lgER1ZAf2M2 YOF-T9UzVK3mmhxdpHeMt/view
	Recognise when an integrand can usefully be regarded as a	Application in Graphics: It is used to determine the rate of a chemical reaction and to	







	product, and use integration by parts Use a given substitution to simplify and evaluate either a definite or an indefinite integral.	determine some necessary information of Radioactive decay reaction.	
Psychology	Anxiety disorders and fear- related disorders	Activity- Students can describe and explain types of anxiety and fear related disorders, their diagnostic criteria and ways to measure them.	Link- http://psychlotron.org.uk/newResources/atypic al/AS AQB anxiety PhobiaOCDDiagnosis Adva nceOrganiser.pdf https://drive.google.com/file/d/1HCG9LMoXMh Jl3muBVc-9PVnvINvorMVk/view
			www.corc.uk.net/outcome-experience- measures/generalised-anxiety-disorder- assessment-gad- 7/#:~:text=The%20Generalised%20Anxiety%20D isorder%20Assessment,over%20the%20past%20 two%20weeks
Applied Mathematics	Understand the concept of the work done by a force, and calculate the work done by a constant force when its point	Research on the real life applications of energy and power Energy use and economic development are inseparable. Where there is energy poverty,	https://mathswithdavid.com/9709-mechanics- 1-power/ https://www.examsolutions.net/tutorials/exa m-questions-work-energy-and-





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Mechanics –	of application undergoes a	there is poverty. And where energy	power/?board=OCR&level=A-
Work energy	displacement not necessarily	availability rises, living standards rise as well.	Level&module=Further+Mechanics+A-
Power	parallel to the force	Energy is essential for human progress.	Level&topic=11118
	<ul> <li>Understand the concepts of</li> </ul>	Economic expansion and improving access to	https://revisionmaths.com/advanced-level-
	gravitational potential energy	energy enable people to lead longer, more	maths-revision/mechanics/work-energy-power
	and kinetic energy, and use	productive lives. Policy. Technology.	https://www.physicsandmathstutor.com/pdf-
	appropriate formulae	Consumer preferences. All three affect how	pages/?pdf=https%3A%2F%2Fpmt.physicsand
	Understand and use the	the world uses energy. Each driver influences	mathstutor.com%2Fdownload%2FPhysics%2FA
	relationship between the	the others and changes over time, with	-level%2FTopic-Qs%2FCAIE%2F05-Work-
	change in energy of a system	variances by region and political	Energy-Power%2FSet-H%2FWork-Energy.pdf
	and the work done by the	circumstances.	
	external forces, and use in		
	appropriate cases the		
	principle of conservation of		
	energy		
Mathematics	Sampling and Estimation		
	Understand the distinction	Research and summarise findings with	https://revisionmaths.com/advanced-level-maths-
Ctatistics 2	between a sample and a	examples on real life application on	revision/statistics/sampling
Statistics 2	population, and appreciate the	population and samples.	
	necessity for randomness in	population and samples.	https://www.bmj.com/about-bmj/resources-
	choosing samples.	Make notes to summarise learning that	readers/publications/statistics-square-one/3-
	<ul> <li>Calculate expectation and</li> </ul>	includes formulae and solved examples.	populations-and-samples
	variance of	includes formulae and solved examples.	
	the mean of a random sample.		https://www.khanacademy.org/math/ap-
	<ul> <li>Solve problems using central</li> </ul>		statistics/gathering-data-ap/sampling-observational-
	limit theorem where appropriate		studies/e/identifying-population-sample





	<ul> <li>Calculate unbiased estimates of the population mean and variance</li> <li>Determine and interpret a confidence interval for a population mean and proportion</li> </ul>		https://www.youtube.com/watch?v=Etp6km1JQi8 https://www.youtube.com/watch?v=LhOYQFtdc6c
English Language	Read a Wikipedia entry on an exotic flora or fauna. Watch a documentary on the same flora and or fauna chosen. Compare the treatment of the same subject through different mediums.	<ul> <li>Read a Wikipedia entry on an exotic flora or fauna. Watch a documentary on the same flora and or fauna chosen. Compare the treatment of the same subject through different mediums by analysing the following.</li> <li>The development of topic</li> <li>Lexical and semantic use</li> <li>Orthography Morphology</li> </ul>	https://www.wikipedia.org/ www.youtube.com www.bbcwildlife.com www.natgeo.com
Information Technology	Declarative programming(Prolog):	<ul> <li>Encourage your child to develop         a software project to include the         following:</li> </ul>	Prolog:  www.learnprolognow.org/lpnpage. php?pageid=implementations  Tutorial guide to prolog:





	Demonstrate an ability to write code that can satisfy a goal using facts and rules	<ul> <li>Create a software database which can handle the files using Prolog concept.</li> </ul>	www.learnprolognow.org/lpnpage. php?pageid=online
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)  Protyping  • describe prototyping  • describe types of prototyping (including: evolutionary, incremental, throwaway, rapid)  discuss the advantages and disadvantages of prototyping	<ul> <li>Discuss how the possibility of a disaster can be planned for and why this might be important.</li> <li>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.</li> </ul>	The following could be used for information:  http://whatis.techtarget.com/definit ion/disaster-recovery  http://www.ready.gov/business/imp lementation/IT





Art& Design	AO2 and AO3	To reflect growing independence in the	<u>www.studentartguide.com</u>
	learners to explore and build on their subject of interest. To encourage independent expression and the development of a critical, reflective practice.  Independent personal study.	refinement and development of ideas and	
		personal outcomes.	
		To engage in original experimentation with a	
		range of media, materials and techniques,	
		including wet and dry mediums.	
		To investigate critical reflection in the process that helps artists and designers to learn what works and what doesn't	