



LEARNING TRAILS AY 2024-25

GRADE: 11

TERM 1_WEEK 2 (2nd to 6th September 2024)

IT	MATHEMATICS
<p>Topics: Data processing and information: Differences between data and information. Direct and indirect data sources. Database.</p> <p>Learning Objectives: Identifying that data becomes information through context and meaning.</p> <p>Differentiate between direct data sources and indirect data sources.</p> <p>Describe the uses of direct and indirect data and their suitability for given purposes.</p> <p>Apply validation in relational database. Use input mask in database.</p> <p>Resources needed: Smart board, activity sheet, computer systems</p> <p>Homework/Assignments: Find out the questions from past papers and solve them.</p>	<p>Topics: Quadratics</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• carry out the process of completing the square for a quadratic polynomial $ax^2 + bx + c$ and use a completed square form• find the discriminant of a quadratic polynomial $ax^2 + bx + c$ and use the discriminant• solve quadratic equations, and quadratic inequalities, in one unknown• Solve by substitution a pair of simultaneous equations of which one is linear, and one is quadratic• Recognise and solve equations in x which are quadratic in some function of x. <p>Resources needed: MS PowerPoint, Textbook, ATS laminated sheets, Search Results (cambridgepapers.net)</p> <p>Homework/Assignments: Search Results (cambridgepapers.net) Search Results (cambridgepapers.net)</p>



ADVANCED ARABIC	GENERAL ARABIC
<p>Topics: آيات من سورة النور</p> <p>Learning Objectives: أن يحفظ مجموعة من الآيات القرآنية الكريمة والأحاديث النبوية الشريفة أن يحلل معانيها ضمن سياقتها ملتفتاً إلى خصائص النص القرآني أن يفسر معانيها ويوظفها في جمل من إنشائه</p> <p>Resources needed: الكتاب المدرسي - بوربوينت - اختبار الكتروني</p> <p>Homework/Assignments: حل أسئلة الكتاب - حفظ الآيات القرآنية - حل أوراق العمل</p>	<p>Topics: برج خليفة</p> <p>Learning Objectives: أن يكتب الكلمات الجديدة أن يوظف الكلمات الجديدة في جمل أن يتحدث عن برج خليفة</p> <p>Resources needed: الكتاب العرض التقديمي الانترنت</p> <p>Homework/Assignments:</p>
PHYSICS	BIOLOGY
<p>Topics: Physical quantities and units</p> <p>Learning Objectives: Use the prefixes and symbols to indicate decimal submultiples or multiples of both base and derived units Explain the effects of systematic and random errors in measurements Assess the uncertainty in a derived quantity by simple addition of absolute or percentage uncertainties</p> <p>Resources needed: Past papers, pictures PPT, electronic board</p> <p>Homework/Assignments: Past paper Qns [2016-21]J/Nov</p>	<p>Topics: 1.2 Cells as the basic units of living organisms</p> <p>Learning Objectives: Recognise organelles and other cell structures found in eukaryotic cells and outline their structures and functions, cell surface membrane</p> <ul style="list-style-type: none">• nucleus, nuclear envelope and nucleolus• rough endoplasmic reticulum• smooth endoplasmic reticulum• Golgi body (Golgi apparatus or Golgi complex) <p>Resources needed: Past Papers, Charts, Text book</p> <p>Homework/Assignments: compare the structure of a prokaryotic cell as found in a typical bacterium with the structures of typical eukaryotic cells in plants and animals</p>



CHEMISTRY	ACCOUNTING
<p>Topics: Atomic structure</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• Understand the definition of first ionisation energy: the energy required to remove one mole of electrons from one mole of gaseous atoms to form one mole of singly charged positive ions.• Explain and understand the factors affecting ionisation energy, including:• Atomic Radius: Larger atomic radii result in lower ionisation energies.• Nuclear Charge: Higher nuclear charge leads to a higher ionisation energy.• Electron Shielding: More inner shell electrons reduce the effective nuclear charge experienced by outer electrons, lowering ionisation energy.• Electron Pairing in Orbitals: Electron-electron repulsion in paired electrons in the same orbital may reduce ionisation energy. <p>Resources needed:</p> <ul style="list-style-type: none">• Recommended Textbooks:• <i>Cambridge International AS and A Level Chemistry Coursebook</i> by Roger Norris, Lawrie Ryan, and David Acaster.• <i>Chemistry in Context</i> by Graham Hill and John Holman.• Study Guides:• Revision guides and workbooks specifically tailored to the Cambridge 9701 syllabus, such as those published by Hodder Education or Oxford University Press.	<p>Topics: Control account</p> <p>Learning Objectives: To formulate sales and purchase ledger control accounts</p> <p>Resources needed: Text book PPT Task Sheets Formats</p> <p>Homework/Assignments: Text book question 1,2</p>



- **Online Resources:**
- Websites like Chemguide, Khan Academy, and BBC Bitesize for supplementary explanations and examples.

Homework/Assignments:

1. Research Task:

- **Research** and write a short essay (200-300 words) on the applications of ionisation energy in real-world contexts, such as its use in mass spectrometry or understanding chemical reactivity.

2. Interactive Learning:

- **Create** a mind map or concept map linking ionisation energy with other atomic properties (e.g., atomic radius, electron affinity, electronegativity) and trends in the periodic table.

ISLAMIC ARABIC

Topics:

سورة الأحزاب
الثبات على الحق

Learning Objectives:

-أن يتلو الطالب الآيات الكريمة تلاوة صحيحة مجودة
-أن يفسر الآيات تفسيراً إجمالياً مع معانيها
-أن يستنتج بعض دلالات الآيات وأوضح المواقف الواردة -

Resources needed:

الكتاب المدرسي
بوربوينت
أنشطة تعليمية

Homework/Assignments:

حفظ الآيات الكريمة مراعيًا أحكام التجويد
حل أنشطة الطالب
مراجعة البوربوينت

ISLAMIC EDUCATION

Topics:

Surah al Ahzab (1-8) Steadfastness to Truth

Learning Objectives:

Explain the meaning and translation of the Quranic Ayah.
Discuss the Quranic verses and its theme and importance about Steadfastness to Truth

Resources needed:

Online quiz
Discussion
Daily life
PPT
Video
Textbook

Homework/Assignments:

Explain importance about Steadfastness to Truth



ECONOMICS	BUSINESS
<p><u>Topics:</u> 1.1 Scarcity, choice and opportunity cost 1.1.1 - 1.1.4</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none">• Define scarcity, identify choices, explain opportunity cost, and resource allocation• Analyse scarcity, choices at all levels, and opportunity cost, and analyze resource allocation <p><u>Resources needed:</u> Text book Investopedia - Scarcity</p> <p><u>Homework/Assignments:</u> Discuss the opportunity cost of using natural resources and the trade-offs between economic development and environmental sustainability. What is scarcity and how does it affect decision-making? How does opportunity cost influence individual and governmental decisions?</p>	<p><u>Topics:</u> HRM</p> <p><u>Learning Objectives:</u> To analyse the role and purpose of the human resource managers in an organisation To analyse the importance of employee recruitment and selection to an organisation To evaluate the different methods of recruitment and selection</p> <p><u>Resources needed:</u> Text Book Case studies</p> <p><u>Homework/Assignments:</u> Case study: Vacant post in Mauritius</p>