



LEARNING TRAILS AY 2024-25

GRADE: 12

TERM 2_WEEK 2 (13th January to 17th January 2025)

IT	MATHEMATICS
<p><u>Topics:</u> Communications technology: Cloud computing, Data transmission across networks. Animation.</p> <p><u>Learning Objectives:</u> Describe characteristics of cloud computing.</p> <p>Explain the uses of cloud computing.</p> <p>Describe the advantages and disadvantages of cloud computing for individuals and organizations.</p> <p>Differentiate between band width and bit rate.</p> <p>Describe the properties, features and characteristics of different transmission methods.</p> <p><u>Resources needed:</u> Smart board, task sheet, textbook</p> <p><u>Homework/Assignments:</u> Solve past paper questions</p>	<p><u>Topics:</u> Vectors Differential equations</p> <p><u>Learning Objectives:</u> Vector equation of straight line – past paper questions Formulate a simple statement involving a rate change as a differential equation Find by integration a general form of solution for a first order differential equation in which the variables are separated</p> <p><u>Resources needed:</u> Past papers, Text book,</p> <p><u>Homework/Assignments:</u> Related past paper questions</p>



ADVANCED ARABIC	GENERAL ARABIC
<p>Topics: قصة السماور</p> <p>Learning Objectives: أن يتتبع المتعلم الأثر الذي يتركه أسلوب الكاتب واستخدامه لبعض التقنيات البلاغية أن يتتبع المتعلم تقنية الوصف باستخدام الكاتب للتقنيات البلاغية أن يحلل المتعلم جوانب النص الأدبي</p> <p>Resources needed: الكتاب المدرسي - العرض التقديمي - السبورة الذكية</p> <p>Homework/Assignments: قراءة قصة السماور وتحليل عناصرها</p>	<p>Topics: <u>قصة اختراع البريد الساخن</u></p> <p>Learning Objectives: <u>أن يصمم المتعلم خريطة ذهنية للقصة</u> <u>أن يحلل المتعلم عناصر القصة</u> <u>أن يستنبط المتعلم أهمية الاختراعات</u> <u>أن يستنتج المتعلم الدروس المستفادة من القصة</u></p> <p>Resources needed: <u>كتاب الطالب - العرض التقديمي - السبورة الذكية - صور ملونة</u></p> <p>Homework/Assignments: عمل بحث حول مخترع البريد الساخن</p>
PHYSICS	BIOLOGY
<p>Topics: Quantum Physics</p> <p>Learning Objectives: Should be able to Define photon, work function and threshold frequency Explain photoelectric effect and electron diffraction. Define DE Broglie wave and apply equations to solve problems</p> <p>Resources needed: Copy book, calculator, sample questions</p> <p>Homework/Assignments: Topical questions from past papers – Alternating current</p>	<p>Topics: Selection and evolution</p> <p>Learning Objectives: Explain Natural selection ,selection pressures and types of selection Explain how selection, the founder effect and genetic drift, including the bottleneck effect, may affect allele frequencies in populations . Outline how bacteria become resistant to antibiotics as an example of natural selection . Use the Hardy–Weinberg principle to calculate allele and genotype frequencies in populations Describe the principles of selective breeding (artificial selection) Outline artificial selection ,inbreeding and hybridisation</p> <p>Resources needed: Stationary ,calculator ,graph ,note book ,activity sheet</p>



CHEMISTRY	ACCOUNTING
<p>Topics: 33 <u>Carboxylic acid and derivatives</u></p> <p><u>Learning Objectives:</u></p> <ol style="list-style-type: none">1 describe and explain the relative acidities of carboxylic acids, phenols and alcohols describe and explain the relative acidities of chlorine-substituted carboxylic acids2 reaction of alcohols with acyl chlorides using the formation of ethyl ethanoate and phenyl benzoate as examples3 recall the reactions (reagents and conditions) by which acyl chlorides can be produced: reaction of carboxylic acids with PCl_3 and heat, PCl_5 or $SOCl_2$ <p><u>Resources needed:</u> Copy book, calculator, sample questions</p> <p><u>Homework/Assignments:</u> Topical questions from past papers</p>	<p><u>Homework/Assignments:</u>Solve the activity sheet & read the chapter selection</p> <p>Topics: International Accounting Standards</p> <p><u>Learning Objectives:</u> To apply IAS in real life finance scenarios and during audit process .</p> <p><u>Resources needed:</u> Text book Task Sheet</p> <p><u>Homework/Assignments:</u> Topical questions</p>
ISLAMIC ARABIC	ISLAMIC EDUCATION
<p>Topics: «الزواج سبيلٌ للعفة» (سورة النور، الآيات 32–34)</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none">• فهم الآيات القرآنية• أن يتعرّف الطلاب على أهمّ تعاليم سورة النور (32–34) حول أهمية الزواج ودوره في تعزيز العفة• التطبيق العملي• أن يستكشف الطلاب كيف يعمل الزواج، كما أوضحت الآيات، وسيلةً لحفظ القيم الأخلاقية والكرامة الشخصية في ضوء المنهج الإسلامي. <p><u>Resources needed:</u></p>	<p>Topics: Marriage is a Path to Chastity: Surah An-Noor 32-34)</p> <p><u>Learning Objectives:</u> Students will identify the key teachings from Surah An-Noor (32–34) regarding the importance of marriage and its role in promoting chastity.</p> <p><u>Resources needed:</u> To study Surah An-Noor (32–34) directly from the source and reliable scholarly interpretations.</p> <p>Whiteboard / Digital Presentation Tool For noting down key points, managing group reflections, and</p>



- المصحف الشريف وترجمات موثوقة
- لدراسة سورة النور (32-34) من المصدر الأصلي والاستعانة بتفاسير علمية رصينة
- السبورة أو الوسائط الرقمية
- لتدوين النقاط الرئيسية، وتوثيق أفكار المجموعات، وعرض أي تعليقات أو إضاءات مرتبطة بالموضوع

Homework/Assignments:

اكتب صفحة واحدة تبين فيها كيف تؤكد سورة النور (32-34) على دور الزواج في حفظ العفة. تضمن ما يلي:

1. أهم الدروس التي تعلمتها عن التوجيهات الإسلامية في الزواج.

displaying relevant commentary or discussion prompts.

Homework/Assignments:

Write a one-page reflection on how Surah An-Noor (32-34) emphasizes the role of marriage in safeguarding chastity. Include:
The main lessons you learned about Islamic guidance on marriage.
How these teachings can be practically applied in modern society to promote moral conduct.

BUSINESS

Topics:

Operations strategy

Learning Objectives:

- explain the factors influencing operations decisions including information technology (IT) and artificial intelligence (AI)
- analyse the need for flexibility and process innovation
- evaluate the impact of enterprise resource planning (ERP)
- evaluate the techniques of lean production
- analyse the key elements of operations planning
- evaluate the usefulness of critical path analysis (CPA) and network diagrams in project management.

Resources needed:

Text book

Topical case studies with mark scheme uploaded in teams

Homework/Assignments:

Practicing past papers