



## LEARNING TRAILS AY 2024-25

GRADE: 12

TERM 1\_WEEK 5 (23<sup>rd</sup> to 27<sup>th</sup> September 2024)

| IT   | MATHEMATICS   |
|--|---|
| <p><b><u>Topics:</u></b><br/>Graphics creation.<br/>System life cycle (Design phase)</p> <p><b><u>Learning Objectives:</u></b></p> <ul style="list-style-type: none"><li>• Differentiate between bitmap graphics and vector graphics.</li><li>• Describe the characteristics of a bitmap image.</li><li>• Describe the characteristics of a vector image. Create a vector graphic that meets the requirements of its intended application and audience.</li><li>• Construct DFD for a given system.</li><li>• Differentiate between level 0 DFD and level1 DFD.</li><li>• Construct system flowchart for a given system.</li></ul> <p><b><u>Resources needed:</u></b><br/>Computer systems.<br/>Smart board.<br/>Activity sheets.</p> <p><b><u>Homework/Assignments:</u></b><br/>Solve past paper questions.</p> | <p><b><u>Topics:</u></b><br/>Algebra</p> <p><b><u>Learning Objectives:</u></b></p> <ul style="list-style-type: none"><li>• To be able to solve Modular inequalities.</li><li>• To be able to apply the knowledge of Remainder and Factor theorem.</li></ul> <p><b><u>Resources needed:</u></b><br/>Sample questions, past paper questions.</p> <p><b><u>Homework/Assignments:</u></b><br/>TOPICAL PAST PAPER QUESTIONS.</p> |



| ADVANCED ARABIC   | GENERAL ARABIC   |
|---|--|
| <p><b>Topics:</b><br/>الجملة الاسمية</p> <p><b>Learning Objectives:</b><br/>أن يحدد المتعلم أركان الجملة الاسمية<br/>أن يتعرف المتعلم أشكال المبتدأ وأشكال الخبر<br/>أن يعرب المتعلم الجمل إعرابا صحيحا</p> <p><b>Resources needed:</b><br/>الكتاب المدرسي - الدفتر المدرسي - العرض التقديمي - السبورة الذكية</p> <p><b>Homework/Assignments:</b><br/>كتابة الموضوع الثالث المخصص لمهارة الكتابة</p>  | <p><b>Topics:</b><br/>الدرس الثاني الوطن</p> <p><b>Learning Objectives:</b><br/>أن يحدد المتعلم الفكرة الرئيسية والفكر الفرعية للدرس<br/>أن يستنتج المتعلم أهمية الوطن<br/>أن يستخرج المتعلم المهارات النحوية واللغوية من الدرس<br/>أن يتحدث المتعلم عن الوطن</p> <p><b>Resources needed:</b><br/>الكتاب المدرسي - السبورة الذكية - العرض التقديمي</p> <p><b>Homework/Assignments:</b><br/>كتابة فقرة عن الوطن</p>   |
| PHYSICS   | BIOLOGY  |
| <p><b>Topics:</b><br/>Temperature, Ideal Gases</p> <p><b>Learning Objectives:</b><br/>Should be able to<br/>Solve problems based on specific heat and latent heat capacity<br/>Define ideal gas and use ideal gas equation to solve problems<br/>Explain why gas exert pressure on the wall of container</p> <p><b>Resources needed:</b><br/>Calculator, copy book, sample questions, Wi-Fi connection,</p> <p><b>Homework/Assignments:</b><br/>Topical PAST exam papers -Temperature</p> | <p><b>Topics:</b><br/>Homeostasis</p> <p><b>Learning Objectives:</b><br/>-explain importance of homeostasis in mammals<br/>-explain the principles of homeostasis in terms of internal and external stimuli, receptors, coordination systems (nervous system and endocrine system), effectors (muscles and glands) and negative feedback<br/>-state that urea is produced in the liver from the deamination of excess amino acids<br/>describe the structure of the human kidney<br/>- Identify, in diagrams, photomicrographs and electron micrographs, the parts of a nephron<br/>describe and explain the formation of urine in the nephron, limited to: the formation of glomerular filtrate by ultrafiltration in the Bowman's capsule •<br/>selective reabsorption in the proximal convoluted tubule</p> |



|   | <p><b>Resources needed:</b><br/>Calculator , Stationaries, text book, note book ,Wifi connections</p> <p><b>Homework/Assignments:</b><br/><u>Solve the topical questions given</u></p>   |
|---|--|
| CHEMISTRY   | ACCOUNTING   |
| <p><b>Topics:</b> 25.1 Acids and bases</p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"><li>1. understand and use the term solubility product, <math>K_{sp}</math></li><li>2. write an expression for <math>K_{sp}</math></li><li>3. calculate <math>K_{sp}</math> from concentrations and vice versa</li><li>4. (a) understand and use the common ion effect to explain the different solubility of a compound in a solution containing a common ion<br/>(b) perform calculations using <math>K_{sp}</math> values and concentration of a common ion</li></ol> <p><b>Resources needed:</b><br/>Textbook, smartboard, calculators, pastpapers</p> <p><b>Homework/Assignments:</b></p> | <p><b>Topics:</b><br/>Investment appraisal</p> <p><b>Learning Objectives:</b><br/>To appraise capital investment projects using ARR, Payback, NPV, IRR</p> <p><b>Resources needed:</b><br/>Topical questions<br/>Video<br/>Formula Sheet</p> <p><b>Homework/Assignments:</b><br/>Topical questions</p>   |
| ISLAMIC ARABIC  | ISLAMIC EDUCATION  |
| <p><b>Topics:</b><br/>التطرف</p> <p><b>Learning Objectives:</b><br/>إن يبين المقصود بالتطرف<br/>أن يوضح موقف الاسلام من التطرف<br/>أن يستنتج الحكمة من التطرف<br/>أن يحدد أسباب التطرف وأثاره<br/>أن يبرهن على شبهات المتطرفين وينبذها</p>  | <p><b>Topics:</b><br/>Methods of Qur'anic Exegesis</p> <p><b>Learning Objectives:</b><br/><b>Understand the different methods</b> of interpreting the Qur'an (Tafsir bi'l-Riwaya and Tafsir bi'l-Ra'y).<br/><b>Recognize the significance</b> of Qur'anic exegesis in understanding the deeper meanings of the Qur'an.</p> <p><b>Resources needed:</b></p> |



**Resources needed:**

الكتاب المدرسي  
اليوربوينت  
أنشطة صفية

**Homework/Assignments:**

حل أنشطة الطالب بالكتاب المدرسي  
مراجعة اليوربوينت للدرس

**The Study Quran** - English commentary for deeper insights.

**Lecture notes/worksheets** summarizing the major methods of tafsir.

**Homework/Assignments:**

Select an ayah (verse) and compare interpretations using both Tafsir bi'l-Riwaya and Tafsir bi'l-Ra'y methods.

**BUSINESS**

**Topics:**

Business strategy

**Learning Objectives:**

To evaluate approaches to developing business strategies including blue ocean strategy, scenario planning, SWOT analysis, PEST analysis, Porter's five forces, the core competence framework, the Ansoff matrix, force-field analysis and decision trees.

**Resources needed:**

Textbook  
Case studies of strategic decision

**Homework/Assignments:**

Practicing topical case studies- uploaded in teams