



## LEARNING TRAILS AY 2024-25

GRADE: 11

TERM 2\_WEEK 1 (6<sup>th</sup> January to 10<sup>th</sup> January 2025)

IT	MATHEMATICS
<p><b>Topics:</b> Algorithms and flowcharts: Algorithm and pseudocode.</p> <p><b>Learning Objectives:</b> Writing and editing a given algorithm that demonstrates a decision-making process.</p> <p>Writing an algorithm using pseudocode to solve a given problem.</p> <p>Differentiate between count-controlled loop and condition-controlled loop.</p> <p><b>Resources needed:</b> Task sheets, textbook, smart board.</p> <p><b>Homework/Assignments:</b> Solve past paper questions.</p>	<p><b>Topics:</b> Differentiation</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>understand the gradient of a curve at a point as the limit of the gradients of a suitable sequence of chords, and use the notations <math>f'(x)</math>, <math>f''(x)</math> <math>\frac{dy}{dx}</math>, <math>\frac{d^2y}{dx^2}</math> for first and second derivatives</li> <li>use the derivative of <math>x^n</math> (for any rational <math>n</math>), together with constant multiples, sums and differences of functions, and of composite functions using the chain rule</li> <li>apply differentiation to gradients</li> </ul> <p><b>Resources needed:</b> Smartboards, PPTs, Textbook, Topic-wise Past Paper questions on Differentiation.</p> <p><b>Homework/Assignments:</b> <a href="#">Search Results</a> <a href="#">Search Results</a></p>



ADVANCED ARABIC	GENERAL ARABIC
<p><b>Topics:</b> <u>قصيدة - أراك عصي الدمع</u></p> <p><b>Learning Objectives:</b> <u>أن يحدد الفكرة الرئيسية والفكر الفرعية للنص</u> <u>أن يحدد علاقات التضاد والترادف بين الكلمات</u> <u>أن يستنتج الدلالات الإيحائية الواردة في النص</u></p> <p><b>Resources needed:</b> <u>الكتاب المدرسي - العرض التقديمي - أنشطة تعليمية</u></p> <p><b>Homework/Assignments:</b> حل أسئلة الكتاب المدرسي حفظ أبيات القصيدة</p>	<p><b>Topics:</b> <u>التجارة الإلكترونية</u></p> <p><b>Learning Objectives:</b> <u>أن يتحدث عن مميزات وعيوب التجارة الإلكترونية</u> <u>أن يقارن بين التجارة الإلكترونية والتجارة العادية</u> <u>أن يستخرج المفردات الجديدة</u></p> <p><b>Resources needed:</b> <u>الكتاب - العرض - الانترنت</u></p> <p><b>Homework/Assignments:</b> <u>قارن بين التجارة قديماً وحديثاً</u></p>
PHYSICS	BIOLOGY
<p><b>Topics:</b> <u>waves</u></p> <p><b>Learning Objectives:</b> describe what is meant by wave motion as illustrated by vibration in ropes, springs and ripple tanks understand and use the terms displacement, amplitude, period, frequency, wavelength and speed 3 understand the use of the time-base and y-gain of a cathode-ray oscilloscope (CRO) to determine frequency and amplitude derive, using the definitions of speed, frequency and wavelength, the wave equation <math>v = f\lambda</math> recall and use <math>v = f\lambda</math> understand that energy is transferred by a progressive wave recall and use <math>intensity = power/area</math> and <math>intensity \propto (amplitude)^2</math> for a progressive wave</p> <p><b>Resources needed:</b> Course book, syllabus, pastpapers, activity sheet, simulation, pictures, slinky, ropes</p> <p><b>Homework/Assignments:</b> Activity sheet and past paper topical qn[2016-2022]</p>	<p><b>Topics:</b> <u>6 Protein Synthesis</u></p> <p><b>Learning Objectives:</b> 1 describe the structure of nucleotides, including the phosphorylated nucleotide ATP 2 state that the bases adenine and guanine are purines with a double ring structure, and that the bases cytosine, thymine and uracil are pyrimidines with a single ring structure 3 describe the structure of a DNA molecule as a double helix,</p> <p><b>Resources needed:</b> <a href="https://www.youtube.com/watch?v=TNKWgcFPHqw">https://www.youtube.com/watch?v=TNKWgcFPHqw</a></p> <p><b>Homework/Assignments:</b> Solve the past paper questions. 2018 and 2019 Research on chemical mutations.</p>



CHEMISTRY	ACCOUNTING
<p><b>Topics:</b> Reaction Kinetics</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"><li>Explain and use the term rate of reaction, frequency of collisions, effective collisions and non-effective collisions.</li><li>Explain qualitatively, in terms of frequency of effective collisions, the effect of concentration and pressure changes on the rate of a reaction.</li></ul> <p><b>Resources needed:</b></p> <p>Textbook, <a href="http://www.youtube.com/watch?v=SbapBWjDA74">www.youtube.com/watch?v=SbapBWjDA74</a> [Colli <a href="http://www.youtube.com/watch?v=Eikf0VwtoxQ">www.youtube.com/watch?v=Eikf0VwtoxQ</a> [part 2] <a href="http://www.youtube.com/watch?v=sVNdyT7paZE">www.youtube.com/watch?v=sVNdyT7paZE</a></p> <p><b>Homework/Assignments:</b></p> <ul style="list-style-type: none"><li>Textual Questions</li><li>Topical Questions</li></ul>	<p><b>Topics:</b></p> <p>Absorption Costing</p> <p><b>Learning Objectives:</b></p> <p>To analyse the the difference between a cost centre and a cost unit • how to allocate and apportion overhead expenditure between production and service departments • how to calculate overhead absorption rates using an appropriate basis • the causes and the calculation of under absorption and over absorption of overheads</p> <p><b>Resources needed:</b></p> <p>Text book, Topical questions</p> <p><b>Homework/Assignments:</b></p> <p>Topical questions</p>
ISLAMIC ARABIC	ISLAMIC EDUCATION
<p><b>Topics:</b></p> <p>سورة الأحزاب (28–35): نصائح وتوجيهات أخلاقية</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"><li><b>السياق والخلفية:</b></li><li>التعرّف على السياق التاريخي لسورة الأحزاب (28–35)، وخاصة ما يتعلق بخطاب النبي صلى الله عليه وسلم لزوجاته، وفهم التوجيهات الأخلاقية العامة التي تقدّمها الآيات للمسلمين.</li><li><b>التعاليم الأخلاقية:</b></li><li>دراسة التعليمات الأخلاقية الأساسية في هذه الآيات، مثل الحياء وطاعة الله وأهمية التحلي بالخلق الحسن، وكيفية تطبيقها في الحياة اليومية.</li></ul> <p><b>Resources needed:</b></p>	<p><b>Topics:</b></p> <p>Surah al Ahzab (28-35) Ethical Advice and Instructions</p> <p><b>Learning Objectives:</b></p> <p>Context &amp; Background: Identify the historical context of Surah al-Ahzab (28–35), particularly the address to the Prophet’s wives, and understand the broader ethical guidance it provides for Muslims.</p> <p>Ethical Teachings: Examine the key moral instructions—such as modesty, obedience to Allah, and the importance of good character—and how they apply to everyday life.</p> <p><b>Resources needed:</b></p> <p>Recommended sources: Tafsir Ibn Kathir or a reputable contemporary commentary to clarify the verses’ context and importance.</p>

<p><b>المصادر الموصى بها:</b></p> <ul style="list-style-type: none"> <li>تفسير ابن كثير أو أي تفسير معاصر موثوق به، لتوضيح سياق الآيات وأهميتها.</li> </ul> <p><b>Homework/Assignments:</b></p> <p>اكتب صفحة واحدة توضح فيها كيفية تطبيق أحد المبادئ الأخلاقية الواردة في سورة الأحزاب (28–35) (مثل الحياء، أو طاعة الله، أو احترام الأسرة) في حياتك اليومية. اذكر أي تحديات قد تواجهها في الالتزام بهذا المبدأ، وكيف تخطط للتغلب عليها.</p>	<p><b>Homework/Assignments:</b></p> <p><b>Reflective Journal Entry:</b> Write a one-page reflection on how one of the ethical principles from Surah al-Ahzab (28–35) (e.g., modesty, obedience to Allah, respect for family) can be practically applied in your daily life. Include any challenges you might face in practicing it and how you plan to overcome them.</p>
<p><b>ECONOMICS</b></p>	<p><b>BUSINESS</b></p>
<p><b>Topics:</b></p> <p>Macroeconomic policy</p> <p><b>Learning Objectives:</b></p> <p>To define fiscal policy and its objectives. To Understand the difference between government borrowing and taxation. To analyze the types of taxes with the help of examples To analyze the expansionary and contractionary fiscal policy with the help of a diagram</p> <p><b>Resources needed:</b></p> <p>Textbook ,pastpaper questions – case study</p> <p><b>Homework/Assignments:</b></p> <p>Solving topical based questions</p>	<p><b>Topics:</b></p> <p>Quality Management.</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>analyse the concept of quality and the importance of quality</li> <li>analyse the difference between quality control and quality assurance</li> <li>explain the importance of businesses establishing quality-assurance systems</li> <li>evaluate the effectiveness of total quality management</li> <li>evaluate the importance of benchmarking in quality management.</li> </ul> <p><b>Resources needed:</b></p> <p>E- Book, Topical case studies</p> <p><b>Homework/Assignments:</b></p> <p>Practice Past papers.</p>