LEARNING TRAILS AY 2026-27

YEAR: 13 **TERM 1_WEEK 9(Nov 2nd – 6th Nov , 2026)**

IT	MATHEMATICS
Topics: Methods of software development. • Stages and processes of each method • Types of prototyping Animation. **Learning Objectives:** Describe the stages of software development. Differentiate between iterative and incremental methods. Compare and contrast agile and waterfall methods. Analyze the advantages and disadvantages of each method. Explain rapid application development method. Describe different types prototyping including: • Evolutionary • Incremental • Throwaway Discuss the advantages and disadvantages of each type of prototyping. **Resources needed:** Computer system, smart board, textbook, activity sheets. **Homework/Assignments:** Solve past paper questions.	**Topics:** Differentiation **Learning Objectives:** The learners shall be able to: • use the derivatives of e^x, $\ln x$, $\sin x$, $\cos x$, $\tan x$, $\tan^{-1} x$, together with constant multiples, sums, differences and composites • differentiate products and quotients • find and use the first derivative of a function which is defined parametrically or implicitly. **Resources needed:** Smart Board, White board, Textbook, topical past paper questions **Homework/Assignments:** Differentiation | Pure Mathematics 3 | A Level Maths 9709 Differentiation | Stationary Points and Nature | P3 9709 Implicit Differentiation | Pure Mathematics 3 | A Level 9709 Parametric Differentiation | Pure Mathematics 3 | 9709

ADVANCED ARABIC	GENERAL ARABIC
Topics: قصيدة البركة للبحتري **Learning Objectives:** **أن يستنتج المتعلم الفكرة العامة للابيات** **أن يفسر المتعلم المفردات الجديدة** **أن يوظف المتعلم المفردات في جمل** **أن يستخرج المتعلم الصور البيانية والمحسنات البديعية من الأبيات** **أن يحلل المتعلم أبيات القصيدة** **أن يقارن المتعلم بين الطبيعة الخيالية والطبيعة الحية** **Resources needed:-** **الكتاب المدرسي ـ السبورة ـ صور عن البركة عرض تقديمي دفتر الطالب** **Homework/Assignments:** **كتابة نص وصفي عن بركة البحتري**	**Topics:** درس مراحل حياة الإنسان **Learning Objectives:** أن يفسر المتعلم معاني المفردات الجديدة أن يوظف المفردات الجديدة في جمل مفيدة أن يستنتج الفكرة لرئيسة والفكر الفرعية للنص أن يتحدث المتعلم عن مراحل حياة الإنسان أن يستخرج المتعلم المهارات اللغوية والنحوية من النص **Resources needed:** كتاب الطالب ـ العرض التقديمي- السبورة الذكية **Homework/Assignments:** كتابة فقرة عن مرحلة الشباب ودور الشباب في بناء المجتمعات
PHYSICS	**BIOLOGY**
Topics: Electric field **Learning Objectives:** Should be able to State and explain Coulomb's law Describe motion of charged particles in uniform electric field Define electric field and electric potential Solve problems using equations of potential, force and field **Resources needed:** Sample questions, copy book calculator **Homework/Assignments:** Topical question of SHM	**Topics:** Inheretance **Learning Objectives:** 1. Explain the stages of meiosis in plant and animal cells. 2. Interpret photomicrographs and diagrams of cells in different stages of meiosis and identify the main stages of meiosis. 3. Explain that crossing over and random orientation (independent assortment) of pairs of homologous chromosomes and sister chromatids during meiosis produces genetically different gametes. 4. Explain that the random fusion of gametes at fertilisation produces genetically different individuals. 5. explain the terms gene, locus, allele, dominant, recessive, codominant, linkage, test cross, F1, F2, phenotype, genotype, homozygous and heterozygous 6. Interpret and construct genetic diagrams, including Punnett squares, to explain and predict the results of monohybrid crosses.

	7. Explain and predict the results of monohybrid crosses. **Resources needed:** PPTs, Text book, Past Papers **Homework/Assignments:** Practice topical questions 9700/42
CHEMISTRY	**ACCOUNTING**
Topics: 29 An introduction to A Level organic chemistry **Learning Objectives:** 29.1 Formulas, functional groups and the naming of organic compounds Learning outcomes Candidates should be able to: 1 understand that the compounds in the table on page 47 contain a functional group which dictates their physical and chemical properties 2 interpret and use the general, structural, displayed and skeletal formulas of the classes of compound stated in the table on page 47 3 understand and use systematic nomenclature of simple aliphatic organic molecules (including cyclic compounds containing a single ring of up to six carbon atoms) with functional groups detailed in the table on page 47, up to six carbon atoms (six plus six for esters and amides, straight chains only for esters and nitriles) 4 understand and use systematic nomenclature of simple aromatic molecules with one benzene ring and one or more simple substituents, for example 3-nitrobenzoic acid or 2,4,6-tribromophenol	**Topics:** Manufacturing accounts **Learning Objectives:** how to prepare, for a manufacturing business, a statement of profit or loss and a statement of financial position • how to account for manufacturing profit and the elimination of unrealised profit from unsold inventory • the reasons why a business may account for manufacturing profit **Resources needed:** Text book Task sheets Formats PPT **Homework/Assignments:** Topical questions

Resources needed: **Textbook, smart boards** **Homework/Assignments:** Text book questions	
ISLAMIC ARABIC	**ISLAMIC EDUCATION**
Topics: **السنن الربانية** **Learning Objectives:** • أن يتعرف الطالب السنن الربانية وأقسامها. • أن يستدل الطالب على أهمية فهم السنن الربانية للفرد والمجتمع. • أن يبين الطالب خصائص السنن الربانية. • أن يحدد الطالب السنن الشرطية في القرآن الكريم والسنة النبوية. **Resources needed:** • الكتاب المدرسي. • القرآن الكريم والسنة النبوية. • العرض التقديمي والسبورة الذكية. • أوراق عمل متمايزة تناسب مستويات الطلبة. **Homework/Assignments:** حل أسئلة الكتاب المدرسي المتعلقة بدرس السنن الربانية. حل منصة ألف التعليمية	**Topics:** Sunan Rabbaniyyah (Divine Laws of Allah) **Learning Objectives:** • Define the meaning of Sunan Rabbaniyyah (Divine Laws of Allah). • Identify examples of Allah's divine laws in the universe and human life. • Explain the importance of understanding and following Allah's divine laws. • Analyse how divine laws influence individuals and societies. • Apply the lessons learned from Sunan Rabbaniyyah in daily life. **Resources needed:** • Islamic Education textbook. • Whiteboard and markers. • PowerPoint presentation explaining Sunan Rabbaniyyah. • Alef Platform. • Worksheets and interactive learning activities. • Holy Qur'an and relevant verses. **Homework/Assignments:** Read the lesson "Sunan Rabbaniyyah" from the Islamic Education textbook. • Complete the lesson activities in the textbook.

	• Complete the lesson "Sunan Rabbaniyyah" on the Alef Platform. • Write three examples of Allah's divine laws and explain how they affect human life.
BUSINESS	**ECONOMICS**
Topics: **Business communication** **Learning Objectives:** • evaluate the advantages and disadvantages of different communication methods • analyze the causes of barriers to communication and how to overcome them • evaluate the differences between one- and two-way, vertical and horizontal, formal and informal communication • Evaluate the role of management in facilitating communication. **Resources needed:** **Textbook, Case studies** **Homework/Assignments:** Practice end of chapter questions	**Topics:** Growth and survival of firms **Learning Objectives:** To explain the difference between internal and external growth of firms To analyse the methods , reasons and consequences of integration To analyse the conditions and consequences for an effective cartel To discuss the principal agent problem **Resources needed:** Text book PPT Past paper and marking scheme **Homework/Assignments:** Topical questions MCQ from the text book