



LEARNING TRAILS AY 2026-27

YEAR: 12

TERM 1_WEEK 6 (Oct 5th -9th Oct , 2026)

IT	MATHEMATICS
Topics: Hardware and software: Normalization (Database) Learning Objectives: Describe the characteristics of mainframe computers and supercomputers. Explain the uses of mainframe and super computers. Describe the advantages and disadvantages of mainframe computers and supercomputers. Describe Normalization with advantages. Organize files into Third Normal Form. Resources needed: Textbook, PPT, Computer system. Homework/Assignments: Solve past paper questions	Topics: Representing and analysing data Learning Objectives: Select a suitable way of presenting raw statistical data and discuss the advantages and /or disadvantages that particular representations may have. Construct and interpret stem and leaf diagrams, box-and-whisker plots, histograms and cumulative frequency graphs. Use a cumulative frequency graph to estimate the median value, the quartiles and the interquartile range of a set of data, Resources needed: Text book, Calculator, ppt. https://cambridgepapers.net/a-level-mathematics-9709-probability-and-statistics-1-representation-of-data-stem-and-leaf-diagram Homework/Assignments: Daily Practice Questions, Weekly Assignment
ADVANCED ARABIC	GENERAL ARABIC
Topics: <u>اسم الآلة</u> Learning Objectives: <u>أن يعرف المتعلم اسم الآلة</u> <u>أن يستخرج المتعلم اسم الآلة من النصوص والجمل</u> <u>أن يميز المتعلم اسم الآلة عن غيره من المشتقات</u> <u>أن يستنتج أ المتعلم وزن اسم الآلة</u> <u>أن يوظف المتعلم اسم الآلة في جمل مفيدة</u> Resources needed: <u>الكتاب المدرسي - البوربوينت - السبورة الذكية - بطاقات تفاعلية - دفتر الطالب</u> Homework/Assignments:	Topics: <u>هواية والدي</u> Learning Objectives: <u>أن يتعرف الطالب المفردات الجديدة</u> <u>أن يكتب جملا مستخدما المفردات الجديدة</u> <u>أن يذكر الطالب هواية الوالد في النص</u> <u>أن يستخرج الطالب القيم التي تعلمها من الدرس</u> <u>أن يجيب الطالب عن أسئلة الكتاب المدرسي</u> Resources needed: <u>الكتاب المدرسي بوربوينت أنشطة صفية تعليمية</u>



كتابة فقرة قصيرة عن عمل أو موقف من حياتك اليومية . مستخدما اسم الآلة .	<u>Homework/Assignments:</u> <u>يكتب الطالب فقرة عن هوايته المفضلة</u>
PHYSICS	BIOLOGY
<u>Topics: Dynamics</u> <u>Learning Objectives:</u> Solving Question for momentum in 2 dimension Explain friction, drag force and viscosity Discuss terminal velocity and the related graph <u>Resources needed:</u> Topical Question 2021-2025 structured Question PPT, simulation , pictures Homework/Assignments: Topical Question 2021-25	<u>Topics:</u> Biological Molecule- Collagen and Water Enzymes <u>Learning Objectives:</u> <u>Water:</u> explain how hydrogen bonding occurs between water molecules and relate the properties of water to its roles in living organisms, limited to solvent action, high specific heat capacity and latent heat of vaporization <u>Enzymes:</u> 1 state that enzymes are globular proteins that catalyse reactions inside cells (intracellular enzymes) or are secreted to catalyse reactions outside cells (extracellular enzymes) 2 explain the mode of action of enzymes in terms of an active site, enzyme–substrate complex, lowering of activation energy and enzyme specificity, including the lock-and-key hypothesis and the induced-fit hypothesis 3 investigate the progress of enzyme-catalysed reactions by measuring rates of formation of products using catalase and rates of disappearance of substrate using amylase 4 outline the use of a colorimeter for measuring the progress of enzyme-catalysed reactions that involve colour changes 5 Describe and analyse the effects of the temperature, pH, substrate concentration on the rate of enzyme-catalysed reactions.



	6 Explain that the maximum rate of reaction (V_{max}) is used to derive the Michaelis–Menten constant (K_m), which is used to compare the affinity of different enzymes for their substrates. <u>Resources needed</u> Smart board, Laptop, textbook, past papers <u>Homework/Assignments:</u> Practice topical past papers
CHEMISTRY	ACCOUNTING
<u>Topics:</u> Chemical Energetic <u>Learning Objectives:</u> understand that chemical reactions are accompanied by enthalpy changes and these changes can be exothermic (ΔH is negative) or endothermic (ΔH is positive) 2 construct and interpret a reaction pathway diagram, in terms of the enthalpy change of the reaction and of the activation energy 3 define and use the terms: (a) standard conditions (this syllabus assumes that these are 298K and 101kPa) shown by $\ominus$. (b) enthalpy change with particular reference to: reaction, ΔH_r , formation, ΔH_f , combustion, ΔH_c , neutralisation, ΔH_{neut} 4 understand that energy transfers occur during chemical reactions because of the breaking and making of chemical bonds <u>Resources needed:</u> Textbook, Data booklet <u>Homework/Assignments:</u> Textual Questions	<u>Topics:</u> Financial Statement of a soletrader <u>Learning Objectives:</u> To formulate financial statements of a soletrader, after incorporating relevant adjustments <u>Resources needed:</u> Formats Text book End of text book questions <u>Homework/Assignments:</u> Topical questions
ISLAMIC ARABIC	ISLAMIC EDUCATION
<u>Topics:</u> <u>العقود المالية في الإسلام</u> <u>Learning Objectives:</u> أن يعرّف مفهوم العقود المالية في الإسلام.	<u>Topics:</u> Abstinence (<i>Isti'faaf</i>) <u>Learning Objectives:</u>



- أن يذكر أنواعًا من العقود المالية المشروعة
- أن يفسر أهمية العقود المالية في تنظيم المعاملات بين الناس
- أن يحدّد شروط صحة العقود المالية

Resources needed:

- كتاب التربية الإسلامية
- عرض تقديمي أو سبورة
- بطاقات تتضمن أمثلة على العقود والمعاملات المالية

Homework/Assignments:

أن يعدّ جدولاً يوضح أنواع العقود المالية، مع تعريف كل نوع وذكر مثال عليه.

- Explain *Isti'faaf* as self-restraint and protecting one's dignity.
- Identify ways to practise self-restraint in speech, behaviour, and online interactions.
- Explain how faith and good choices help a person avoid harmful behaviour.
- Apply the concept to a real-life situation respectfully.

Resources needed:

- Islamic Education textbook
- Relevant Qur'an verses and Hadith from the lesson
- Presentation or whiteboard
- Age-appropriate scenario cards for discussion

Homework/Assignments:

Write a short paragraph explaining **three ways a student can practise Isti'faaf** at school or online. Include one real-life example.

ECONOMICS

Topics:

Demand and supply curves

Learning Objectives:

To define the meaning of effective demand
To explain the importance of individual and market demand and supply
To explain the factors that affect demand
To explain the factors that affect supply

Resources needed:

Text book
Past paper
Marking scheme
Task sheet

Homework/Assignments:

Topical questions , MCQ

BUSINESS

Topics:

Human Resource Management

Learning Objectives:

To examine the process of recruitment and selection

Resources needed:

E book, Case studies with mark scheme

Homework/Assignments:

Practice end of chapter questions