



LEARNING TRAILS AY 2026-27

YEAR: 12

TERM 1_WEEK 3(Sep 14th -18th , 2026)

IT	MATHEMATICS
Topics: Data processing and information: Encryption Checking the accuracy of data. Learning Objectives: Describe data encryption. Discuss the advantages and disadvantages of encryption. Describe symmetric and asymmetric encryption. Differentiate between symmetric and asymmetric encryption. Resources needed: Text book, PPT, Video, Task sheet Homework/Assignments: Solve past paper questions.	Topics: Functions and Transformations Learning Objectives: Understand the terms function, domain, range, one-to-one function and composition of functions. Identify the range of a given function in simple cases, and find the composition of two given functions. Determine whether or not a given function is one-to-one, and find the inverse of a one-to-one function in simple cases. Resources needed: Text book, calculator, past papers. Homework/Assignments: Daily five questions, weekly assignment.
ADVANCED ARABIC	GENERAL ARABIC
Topics <u>شعر جاهلي / المثقبي العبدى</u> Learning Objectives: <u>أن يفسر المتعلم المفردات الجديدة ويوظفها في جمل مفيدة</u> <u>أن يحلل النص محدداً الأفكار الرئيسية والفرعية من الأبيات أن</u> <u>يحدد المتعلم المعنى الإجمالي للنص</u> <u>أن يوضح المتعلم وظيفة المحسنات البديعية في أبيات القصيدة</u> <u>أن يتحدث المتعلم عن القيم المستفادة من القصيدة</u> Resources needed: <u>الكتاب المدرسي - السبورة الذكية بوربوينت دفتر الطالب</u> Homework/Assignments: يكتب فقرة لا تقل عن عشرة أسطر عن أهمية الصدق و الوفاء بالوعد في حياة الإنسان	Topics: أنواع الخبر Learning Objectives: أن يتعرف الطالب أنواع الخبر أن يميز الطالب بين أنواع الخبر أن يكتب الطالب جملاً تتضمن أنواع الخبر المختلفة أن يجيب الطالب عن أسئلة الكتاب المدرسي أن يصمم الطالب مخططاً عن أنواع الخبر Resources needed: <u>الكتاب المدرسي بوربوينت أنشطة صفية تعليمية</u> Homework/Assignments: <u>يكتب الطالب عن اهتمام دولة الإمارات بالقراءة</u>



PHYSICS	BIOLOGY
<u>Topics: kinematics</u> <u>Learning Objectives:</u> Progressive Assessment for physical quantities and units define and use distance, displacement, speed, velocity and acceleration 2 use graphical methods to represent distance, displacement, speed, velocity and acceleration 3 determine displacement from the area under a velocity–time graph 4 determine velocity using the gradient of a displacement–time graph 5 determine acceleration using the gradient of a velocity–time graph 6 derive, from the definitions of velocity and acceleration, equations that represent uniformly accelerated motion in a straight line 7 solve problems using equations that represent uniformly accelerated motion in a straight line, including the motion of bodies falling in a uniform gravitational field without air resistance <u>Resources needed:</u> <u>simulation, pictures, graph, interactive activities, topical question</u> <u>Homework/Assignments:</u> <u>Past paper qn [2021-2025]</u>	<u>Topics:</u> Cells /Biological molecules <u>Learning Objectives:</u> 1) Differentiate between Light microscope and electron microscope (TEM & SEM) define resolution and magnification and explain the differences between these terms; 2) describe and draw the ring forms of α-glucose and β-glucose ,define the terms monomer, polymer, macromolecule, monosaccharide, disaccharide and polysaccharide state the role of covalent bonds in joining smaller molecules together to form polymers 3) state that glucose, fructose and maltose are reducing sugars and that sucrose is a non-reducing sugar , 4) describe the formation of a glycosidic bond by condensation, with reference to disaccharides, including sucrose, and polysaccharides 5) describe the breakage of a glycosidic bond in polysaccharides and disaccharides by hydrolysis, with reference to the non-reducing sugar test 6) describe the molecular structure of the polysaccharides starch (amylose and amylopectin) and glycogen and relate their structures to their functions in living organisms <u>Resources needed:</u> Text book, Videos, Photomicrographs of electron microscopic images. <u>Homework/Assignments:</u> Drawing of photomicrographs, Practical papers 3/oct/2009.read and learn organelles.
CHEMISTRY	ACCOUNTING



Topics: Chemical Bonding Learning Objectives: 3.1 Electronegativity 3.2 bonding 3.3 Metallic bonding Resources needed: Textbook Homework/Assignments: Textual Questions	Topics: Trial Balance Learning Objectives: To identify errors which affect the trial balance • errors which do not affect the trial balance: – omission – commission – principle – original entry – reversal – compensating • how to prepare ledger accounts and journal entries to correct errors using a suspense account • the effect on the financial statements of the correction of errors • the benefits and limitations of a trial balance Resources needed: Formats Topical questions Text book Homework/Assignments: Topical questions
ISLAMIC ARABIC	ISLAMIC EDUCATION
Topics: سورة الأحزاب الثبات على الحق Learning Objectives: . أن يستمع للآيات الكريمة مراعيًا أحكام التجويد . أن يفسر مفردات الآيات . أن يبين دلالة عظمة الله في خلقه . أن يوضح دلالة الآيات الكريمة . أن يحرص على القيم التي تضمنتها الآيات الكريمة Resources needed: • القرآن الكريم. • الكتاب المدرسي. • السبورة الذكية وجهاز العرض. • بطاقات تدريب على أحكام التجويد. • أوراق عمل للتدريب على التلاوة. Homework/Assignments: التدرب على تلاوة الآيات في المنزل تلاوة صحيحة حفظ الآيات الكريمة محل الدرس	Topics: Surah Al-Ahzab – Steadfastness Upon the Truth Learning Objectives: • Listen to the Qur'anic verses attentively while observing the rules of Tajweed. • Explain the meanings of the key vocabulary in the verses. • Describe the signs of Allah's greatness and wisdom reflected in His creation. • Explain the meanings and key messages of the noble verses. • Demonstrate and practice the values and morals emphasized in the noble verses. Resources needed: • The Holy Qur'an • Student Textbook • Interactive Whiteboard and Projector • Tajweed Practice Cards



	- Recitation Practice Worksheets <u>Homework/Assignments:</u> - Memorize the assigned Qur'anic verses covered in the lesson. - Practice reciting the assigned verses at home with correct Tajweed.
ECONOMICS	BUSINESS
<u>Topics:</u> Factors of production, Resource allocation in different economic systems <u>Learning Objectives:</u> To explain the importance of the factors of production To explain the difference between human capital and fixed capital To explain the division of labour and specialization To explain the role of entrepreneur in the organisation of the factors of production To explain decision making in market, planned and mixed economic systems <u>Resources needed:</u> Textbook Past paper / Marking scheme PPT Task sheet <u>Homework/Assignments:</u> Topical questions	<u>Topics:</u> 1.4 Business objectives 1.4.1 Business objectives in the private sector and public sector <u>Learning Objectives:</u> To analyse the relationship between mission statement, aims, objectives, strategy and tactics To analyse how objectives might change overtime To analyse the translation of objectives into targets and budgets To evaluate how ethics may influence business objectives and activities <u>Resources needed:</u> Textbook, case studies with mark scheme <u>Homework/Assignments:</u> Practice end of chapter case studies