Study list **المادة الدراسية للاختبارات**

الصف العاشر Grade 10	**منتصف الفصل الدراسي الأول** 2025/2024 Semester 1- MidTerm

المادة Subject		الوحدات/الدروس Units/ Lessons	الصفحات في الكتاب Pages in the book
Computer Science	**Theory** **النظري**	**Module 2:** 2.1.2 Print() function 2.1.3 Function Arguments 2.1.8 Python escape and newline characters 2.1.9 Using multiple arguments 2.1.10 Positional arguments 2.2.1 Literals 2.2.1-5 Datatypes: Integer, Floats, Strings, Boolean values 2.3.1 Python as a calculator 2.3.2 Basic operators 2.3.3 Operators and their priorities 2.4.1 Variables – data-shaped boxes 2.4.2 Variable names 2.4.3 Create a variables 2.4.4 Use a variables 2.4.5 Assign a new value to an already existing variable	All the resources including Lesson Presentations, Worksheets, Homework tasks, and Quizzes have been uploaded to LMS

	2.4.6 Solving simple mathematical problems 2.4.8 Shortcut operators 2.5.1 Comments – why, when, and how? 2.5.2 Marking fragments of code 2.6.1 The input() function 2.6.2 The input() function with an argument 2.6.3 The result of the input() function 2.6.4 The input() function – prohibited operations 2.6.5 Type casting (type conversions) 2.6.6 More about input() and type casting 2.6.7 String operators 2.6.8 Type conversions once again **Module 3:** 3.1.2 Comparison: equality operator 3.1.4 Operators 3.1.7 Conditions and conditional execution 3.1.8 Analyzing code samples **3.2.5 Looping your code with for**		
	Module 2: 2.1.2 Print() function 2.1.3 Function Arguments 2.1.8 Python escape and newline characters 2.1.9 Using multiple arguments 2.1.10 Positional arguments	**Practical** **العملي**	

All the resources including Lesson Presentations, Worksheets, Homework tasks, and Quizzes have been uploaded to LMS	2.2.1 Literals 2.2.1-5 Datatypes: Integer, Floats, Strings, Boolean values 2.3.1 Python as a calculator 2.3.2 Basic operators 2.3.3 Operators and their priorities 2.4.1 Variables – data-shaped boxes 2.4.2 Variable names 2.4.3 Create a variables 2.4.4 Use a variables 2.4.5 Assign a new value to an already existing variable 2.4.6 Solving simple mathematical problems 2.4.8 Shortcut operators 2.5.1 Comments – why, when, and how? 2.5.2 Marking fragments of code 2.6.1 The input() function 2.6.2 The input() function with an argument 2.6.3 The result of the input() function 2.6.4 The input() function – prohibited operations 2.6.5 Type casting (type conversions) 2.6.6 More about input() and type casting 2.6.7 String operators 2.6.8 Type conversions once again **Module 3:** 3.1.2 Comparison: equality operator		

	3.1.4 Operators 3.1.7 Conditions and conditional execution 3.1.8 Analyzing code samples **3.2.5 Looping your code with for**		
All the resources including Lesson Presentations, Worksheets, Homework tasks, and Quizzes have been uploaded to LMS	6.1 Properties of Light - Describe seven properties of light - Explain how shadows occur. - Explain how eclipses occur. - Explain how day and night occur. - Define light intensity. - Calculate light intensity. 6.2 Optical Devices: - Describe refraction. - Predict the location of images for a flat mirror using a ray diagram. - Determine magnification. 6.3 Reflection and Images: - Define the normal. - Define the G17incident angle. - Define the reflection angle. - Describe reflection. - Characterize the images formed by different optical devices 6.4 Snell's Law - Describe refraction - Provide examples of reflection in real life. - Define the index of refraction. - Calculate the angle of refraction at a boundary. - Describe why internal reflection occury - Calculate the critical angle at a boundary. 7.1 & 7.2 Real and Virtual Images - LENSES: - Distinguish between real and virtual images. - Characterize different lenses based on their image properties. - Distinguish between concave and convex lens. - Use ray tracing to locate the image created by a convex lens.	**STEM-Physics**	**STEM**

	- Calculate image distance for a convex - Calculate image magnification for convex lens. 7.3 & 7.4 Compound Optics: - Explain how compound optical devices work		
Student workbook: Unit 1: Pages: 1. Density: 1-3 2. Particle Theory: 5 3. Changes of State 1: 6-7 4. Heating & Cooling Curves 8-9 **Student workbook:** Unit 2 pages: 1. Structure of Atoms: 11-12 3. Ions: 13-14 4. Relative Atomic Mass (RAM): 15 5. Electron Arrangement: 16-18	**Unit 1: States of matter** 1. Understand the concept of density as mass per unit volume. 2. Review the formula for calculating density: Density (ρ) = Mass (m) / Volume (V). 3. Practice solving density-related problems. 4. Revise the different states of matter and their characteristics. 5. Study phase transitions and the energy changes involved. 6. Be familiar with the energy changes associated with phase transitions. 7. Understand heating curves and their significance. 8. Practice interpreting heating curves for different substances. **Unit 2: Elements compounds & mixtures** 1. Understand the differences between elements, compounds, and mixtures. Know that elements are made of only one type of atom, compounds are composed of two or more different types of atoms chemically bonded, and mixtures consist of different substances physically combined.	**STEM - Chemistry**	

	2. Differentiate between homogeneous (uniform composition) and heterogeneous (non-uniform composition) mixtures. Recognize examples of each. 3. Learn the basic structure of an atom, including the nucleus (protons and neutrons) and electrons in energy levels (shells) around the nucleus. 4. Understand how to calculate the percentage by mass of an element in a compound. Formula: (Mass of element / Mass of compound) × 100%. 5. Know what isotopes are (atoms of the same element with different numbers of neutrons) and how to calculate their relative masses using the weighted average formula. 6. Learn how ions are formed through the gain or loss of electrons, resulting in charged particles (cations and anions). Understand why atoms become ions. 7. Be familiar with the Bohr model of the atom, which describes electrons in fixed energy levels as they orbit the nucleus.		
All resources are/will be loaded on LMS with every lesson also going on TEAMS. Students have been	16.1 - Describe the role of cells in organisms - Explain the key points of cell theory - Explain how advances in microscopy contributed to the development of the cell theory 16.2	**STEM - Biology**	

told their notebooks are essential also.	- Compare and contrast the structure of prokaryotic and eukaryotic cells - Identify examples of prokaryotic and eukaryotic organisms - Describe how prokaryotic cells can be both harmful and beneficial - Summarize the form and functions of the major cell organelles 17.1 - Describe the structure and composition of the cell membrane - Explain the ways in which the phospholipid bilayer impacts cell function - Model the behavior of a selectively permeable membrane 17.2 - Describe homeostasis - Explain the ways in which organisms maintain a stable internal state 18.1 - Explain a variety of energy production and consumption mechanisms across different organisms - Identify the sources of energy in an ecosystem - Describe the ways in which organisms change the form of the energy they consume or use 18.2 - Explain the catalytic behavior of enzymes - Describe some of the mechanisms by which enzymes catalyze biochemical reaction - Determine the optimal operating conditions		
	أولا الحفظ: -حفظ المقطعين(أ-ب) من نص مدرسة الحياة.ص 20 ثانيا القضايا الأدبية:	اللغة العربية	

	-مفهوم الأدب وأهميته. ص 17 **ثالثا القراءة والبلاغة:** - مدرسة الحياة. ص 20 -النمور في اليوم العاشر.ص 57 -التشبيه المفرد.ص 26 **رابعا الكلمة والجملة:** -التصغير.ص 29 -أغراض التصغير.ص 46 -لا النافية للجنس.ص64 **خامسا الكتابة:** -وصف موقف.ص 49 **سادسا الاستماع:** -مشيرب قلب الدوحة.ص 51	
التربية الإسلامية	1. من سنن الله في الكون 20-28 2. التكافل الاجتماعي (حفظ الحديث ص 32)32-39 3. الإيمان حقيقته وشُعبه 42-49 4. أحكام الزواج 52-65 5. أم المؤمنين عائشة رضي الله عنها68-75 6. تعظيم حُرمات الله تعالى78-87	20-28 32-39 42-49 52-65 68-75 78-87
Mathematics	**Module 8 Relations and Functions**	**Integrated Math Book II**

Pages: 429-489 Pages:499-546	8.1 Functions and Continuity 8.1 Functions and Continuity 8.2 Linearity, Intercepts, and Symmetry 8.3 Extrema and End Behavior 8.4 Sketching Graphs and Comparing Functions 8.5 Graphing Linear Functions and Inequalities 8.6 Special Functions 8.7 Transformations of Functions and Systems Module 9 Linear Equations, Inequalities, 9.1 Solving Linear Equations and Inequalities 9.2 Solving Absolute Value Equations and Inequalities 9.3 Equations of Linear Functions 9.4 Solving Systems of Equations Graphically 9.5 Solving Systems of Equations Algebraically 9.6 Solving Systems of Inequalities	
Unit 1 = 1-24 Unit 2 = 25-48	1. Vocabulary -all unit 1 and 2 words 2. Reading Skills -identify: main ideas, details, sequence, evidence, infer meaning -ability to explain, using evidence if required, in short answer questions 3. Critical Thinking Skills -analyze evidence -analyze levels of certainty	English

	4. Language Skills -making comparisons -paraphrasing/using synonyms 5. Writing Skills -compare & contrast essay -cause-effect essay -general concepts: introduction/conclusion, topic sentence, supporting ideas, transitions, details (commentary), concluding sentences -full stops versus commas for ending sentences	

مع تمنياتنا لأبنائنا الطلبة بالتوفيق والنجاح