Semester: 1 **2025 – 2026**

Grade Level	12	**Subject: Communication and Technology**
Teacher(s) Name	Nader Madi	
Textbook	Information and Communication Technology	

Week #	**Dates**		**Lesson Title / Pages**	**CCSS / NGSS Code / MOE**
1	Aug.25th	Aug.29th	• Investigates the basic building blocks of information and their characteristics • Investigates the need of technology to create, disseminate and manage data and information	Explores the basic concepts of ICT together with its role and applicability in today's knowledge-based society
2	Sept. 1st	Sept. 5th	• Formulates an abstract model of information creation and evaluates its compliance with ICT • Selects and classifies the basic components of a computer system	Explores the basic concepts of ICT together with its role and applicability in today's knowledge-based society
3	Sept.8th	Sept.12th	• Analyses the activities of data processing • Investigates the • application of ICT in different domains •	Explores the basic concepts of ICT together with its role and applicability in today's knowledge-based society
4	Sept. 15th	Sept.19th	• Evaluates the impact of ICT in the society	Explores the basic concepts of ICT together with its role and applicability in today's knowledge-based society
5	Sept.22nd	Sept.26th	• Elicits the significant changes occurred in the computers from generation to generation with more emphasis on the evolution of processors	Explores the evolution of computing devices, to be able to describe and compare the performance of modern computers

			• Explores the functionality of a computer in relation to the hardware and their interfaces	
6	Sept. 29th	Oct.3rd	• Explores the Von Neumann Architecture • Examines PC memory system to identify different types of memory and their main characteristics	Explores the evolution of computing devices, to be able to describe and compare the performance of modern computers
7	Oct.6th	Oct.10th	• Examines PC memory system to identify different types of memory and their main characteristics	Explores the evolution of computing devices, to be able to describe and compare the performance of modern computers
8	Oct.13th	Oct.17th	• Analyses how numbers are represented in computers • Analyses how characters are represented in computers	Investigates how instructions and data are represented in computers and exploit them in arithmetic and logic operations
9	Oct.20th	Oct.24th **Oct 24 End of Quarter 1**	• Uses basic arithmetic and logic operations on binary numbers	Investigates how instructions and data are represented in computers and exploit them in arithmetic and logic operations
10	Oct.27th	Oct.31st	• Analyzes basic digital logic gates in terms of their unique functionalities • Simplifies logic expressions using laws of Boolean algebra and Karnaugh map	Investigates how instructions and data are represented in computers and exploit them in arithmetic and logic operations
11	Nov.3rd	Nov.7th	• Designs simple digital circuits using logic gates • Explores how combinational Logic circuits are used in CPU and sequential circuits in physical memory	Investigates how instructions and data are represented in computers and exploit them in arithmetic and logic operations
12	Nov.10th	Nov.14th	• Defines the term computer operating system (OS) and investigates its need in computer systems • Explores how an operating system manages directories/folders and files in computers	Uses operating systems to manage the functionality of computers

13	Nov.17th	Nov.21st	• Explores how an operating system manages processes in computers • Explores how an operating system manages the resources	Uses operating systems to manage the functionality of computers
14	Nov. 24th	Nov.28th	• Explores signals and their properties • Explores signal transmission media	Explores data communication and computer networking technologies to share information effectively
15	Dec.1st	Dec.5th	• Investigates how digital data is encoded using signal elements • Explores the use of Public Switched Telephone Network (PSTN) to connect two remote devices	Explores data communication and computer networking technologies to share information effectively
16	Jan 5th	Jan 9th	• Investigates how the problem of connecting multiple devices into a network is addressed • Explores the role of Media Access Control (MAC) protocol	Explores data communication and computer networking technologies to share information effectively
17	Jan 12th	Jan 16th	• Explores how the multiple networks are interconnected to form the Internet •	Explores data communication and computer networking technologies to share information effectively
18	Jan 19th	Jan 23rd	• Explores some applications on the Internet • Explores the role of transport protocols on the Internet	Explores data communication and computer networking technologies to share information effectively
19	Jan 26th	Jan 30th	Semester 1 Exams: Jan 22nd to Jan 30th	

Winter Break for Students: Dec 8 to Jan 4