Computer Department

Semester: 1 **2026-2027**

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

Week #	Dates		Lesson Title / Pages	CCSS / NGSS Code / MOE
1	Aug 31	Sept 4	• 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 7	Sept 11	• 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 14	Sept 18	• 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 21	Sept 25	• 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 28	Oct 2	• Elicits the significant changes that occurred in the computers from generation to generation with more emphasis on the evolution of processors • Explores the functionality of a computer in relation to the hardware and their interfaces	Explores the evolution of computing devices, to be able to describe and compare the performance of modern computers
6	Oct 5	Oct 9	• 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
	Oct 12	Oct 16	**1st Semester Break**	
7	Oct 19	Oct 23	• 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 26	Oct 30	• 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	Nov 2	Nov 6	• 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	Nov 9	Nov 13	• 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 16	Nov 20	• 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 23	Nov 27	• 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 30	Dec 4	• 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	Dec 7	Dec 11	• Explores signals and their properties • Explores signal transmission media	Explores data communication and computer networking technologies to share information effectively
	Dec 14	Jan 1	**Winter Break for All Students**	
15	Jan 4	Jan 8	• Investigates how digital data is encoded using signal elements	Explores data communication and computer networking

			• Explores the use of Public Switched Telephone Network (PSTN) to connect two remote devices	technologies to share information effectively
16	**Jan 11**	**Jan 15**	• 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 18**	**Jan 22**	**Semester 1 Exams**	
18	**Jan 25**	**Jan 29**	**Semester 1 Exams**	