

Lesson Preparation book
Programming
and
Artificial Intelligence

First Year of Secondary School
First Term

2025-2026



Teacher' s Biography

Name:

School:

The educational administration:

Qualification:

Teaching Subject:

Comprehensive School:

The school to which he is delegated:

Date of appointment:

The job is on the staff:

Teacher Code:

Mobile Number:

Teacher

Supervisor

School Principal

Teacher's Signature

Daily class schedule

Session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Teacher

Supervisor

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The Lesson Objectives of programming and AI

At the end of the first term the student will be able to:

- Understand what information is and distinguish it from data.
- Identify ethical principles and explain the role of media in handling information.
- Recognize laws and rights related to the information society.
- Apply basic methods to protect and secure information.
- Explore the relationship between information technology and community development.
- Explain the evolution and diversity of communication methods.
- Describe how information is designed and represented digitally.
- Explain how sound is converted into a digital format.
- Demonstrate understanding of computer structure, software, and logic circuits.
- Describe networks, IP addresses, protocols, and data transmission processes.
- Explain how databases operate and explore different information systems.
- Analyze various types of data and apply basic data analysis techniques.
- Understand the concept of simulation and how models are built and used.
- Describe the sequence of commands in programming logic.
- Develop programming skills, understand algorithms, and apply programming fundamentals.

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Specific objectives of the subject of programming and AI

At the end of the first term the student will be able to:

1. Distinguish between data and information through real-life examples.
2. Apply ethical principles when dealing with information on the Internet.
3. Identify some laws that regulate intellectual property rights in the information society.
4. Use basic steps to secure personal data (strong password – not sharing personal information).
5. Explain the impact of information technology on community development through class discussion.
6. Compare between traditional and modern means of communication.
7. Represent specific information (image or text) in digital form using a computer.
8. Explain how sound is converted into a digital format with a practical example.
9. Identify the main components of computer architecture (CPU – memory – input and output units).
10. Explain the concept of an IP address and determine its role in networks.
11. Create a simple database using suitable software.
12. Analyze a simple set of data and draw conclusions.
13. Design a simulation model for a real-life situation (e.g., traffic movement or weather).
14. Arrange the steps of a simple program using sequence logic.
15. Write a short program in an appropriate programming language to solve a specific problem.

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Distribution of programming and AI content
For 1st.Sec 2025 / 2026 - First Term

MONTH	week	DATE	TOPIC
September ٢٠٢٥	1	20 / 9 / 2025	First session: Introduction to understanding the book methodology on the Ministry's website - Introduction to the Qureo platform Sessions ٢-٣-٤ : First Semester (Lesson ١: Information and Media - Lesson ٢: Information Ethics) - Second Semester (Lesson ١: Personal Information(
	2	27 / 9 / 2025	First, second and third Sessions : Chapter Two: Lesson Two: Intellectual Property Rights - Lesson Three: Use of Information - Chapter Three: Lesson One: Threats and Countermeasures in Information Security. Fourth session: The platform: Explanation of the different levels and platform tests on the Ministry's website.
October ٢٠٢٥	3	4 / 10 / 2025	The first, second and third Sessions : Chapter Three: Lesson Two: Threats and Countermeasures in Information Security ٢ - Lesson Three: Threats and Countermeasures in Information Security ٣ - Chapter Six: Analog and Digital: Lesson Two: The Dual System and the Quantity of Information. Fourth session: The platform: Explaining how to prepare for the first-level exam on the platform on the Ministry's website.
	4	11 / 10 / 2025	First and second Sessions : Chapter Six: Lesson Three: The Hexadecimal System - Lesson Four: Digital Representation of Letters. The third and fourth session: The platform: registration and login to the platform - mathematical operations and text strings
	5	18 / 10 / 2025	First and second Sessions : Chapter Six: Continued from Lesson Four: Digital representation of letters - Lesson Five: Arithmetic operations in the binary system The third and fourth session: The platform: Variables - Comprehensive review
	6	25 / 10 / 2025	First and second Sessions : Chapter Six: Lesson Six: Arithmetic operations in the binary system ٢ - Monthly test The third and fourth session: The platform: The IF rule Conditional sentences

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November ٢٠٢٥	7	4 / 10/ 2025	First and second Sessions : Chapter Six: Lesson Eight: Digitizing images – Lesson Ten: Image design Lesson Three Fourth: The Platform: The Multiple Conditional – Comprehensive Review
	8	8 / 11/ 2025	First session: Chapter Seven: Lesson One: Computer Composition The second, third and fourth Sessions : The platform:Tofas mock test Logical operators – Interactive operations
	9	15 / 11/ 2025	First session: Chapter Seven: Lesson Two: Computer Software Lessons ٢, ٣ and ٤: Platform: JavaScript – Comprehensive Review
	10	22 / 11/ 2025	First session: Chapter Seven: Lesson Three: Logic Circuits The second, third and fourth Sessions : The platform:Tofas mock test Logical operators – functions
	11	29 / 11/ 2025	First session: Chapter Seven: Continuation of Lesson Three: Logic Circuits The second, third and fourth Sessions : The platform:Tofas mock test Logical Operators – Functions ٢
December ٢٠٢٥	12	6 / 12/ 2025	First session: Review of the book's topics The second, third and fourth sessions: The platform: Comprehensive review
	13	13 / 12/ 2025	First session: Review of the book's topics The second, third and fourth Sessions : The platform: Types
	14	20 / 12/ 2025	First session: Review of the book's topics The second, third and fourth Sessions : The platform: Matrices
	15	27 / 12/ 2025	First session: Review of the book's topics The second, third and fourth sessions: The platform: Comprehensive review
January ٢٠٢٦	16	3/1/2026	General review
	17	10 / 1/ 2026	First semester exams

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Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Introduction to understanding the book's methodology - Introduction to the Qureo platform for teaching programming on the Ministry's website

Introduction/-----
Lesson objectives/

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	One	Unit One: What is information

Introduction / What is the information?

Lesson objectives /

1-Distinguish between Data and information through real-life examples

2-produce the characteristics of information on the Internet

3-Explain Media culture

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Scientific values: Curiosity; appreciation of knowledge and scholars</p> <p>Interactive whiteboard – textbook – presentation</p>			<p><input type="checkbox"/> Brainstorming</p> <p><input type="checkbox"/> dialogue and discussion</p> <p><input type="checkbox"/> critical thinking</p>	<p>↪ Data: Facts represented using numbers, letters, or symbols.</p> <p>↪ Information: Meaning or value to the recipient and used to make decisions. Unlike physical objects, information has no fixed form or entity.</p> <p>Information has the following characteristics:</p> <p>Continuity – Reproducible You are welcome Share –</p> <p>↪ Knowledge: is information Which have been systematically analyzed and organized to help solve problems.</p> <p>◎ The information may be:-</p> <p>Primary: It is obtained through direct personal experience or through research and experiments</p> <p>Secondary: You do not obtain it directly yourself, but through a third party</p> <p>It is essential to compare the information you obtain from multiple sources with other information "to determine its accuracy and reliability. This process is called " By mutual verification</p> <p>◎ Media Media It is a means of conveying information to a number of individuals .:</p> <p>Types of media:</p> <ol style="list-style-type: none"> Expressive media : Media used as a medium To express information Transport/Send Modes : Media used as a medium for transmission And exchange of information. Recording media : Media used for recording and information storage <p>Media culture :-:Media literacy capacity To accurately interpret the information obtained from the media.</p>	<p>Design a sheet using Excel or Google Sheet. Create a table with two columns: The first column is titled : Data The second column is titled: Information . Enter the expected temperatures</p> <p>Write the characteristics of the information</p>		<p>What is the term for representing facts or things using numbers, letters, or symbols?</p>
Weekly evaluation				Put a (√) or (x) Information has the property of spreading ()			

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Two	Unit One: What is information? Information Ethics

Introduction / What are the problems that occur with smartphones and social media?

Lesson objectives/

- 1- **Applies** Principles of information ethics ٢- **produce** the characteristics of information on the Internet
- 3- **suggest** solutions to confront the problems that we encounter with smartphones

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: communication</p> <p>Issues of globalization and citizenship: Digital Citizenship</p>	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> dialogue and discussion <input type="checkbox"/> critical thinking	<p>↪ Information ethics: The basic concepts and orientations necessary for appropriate activities in the information society. Regardless of the presence or absence of laws,</p> <p>↪ points to consider when disseminating information</p> <ol style="list-style-type: none"> 1- You may not share photos or videos that others own without obtaining permission 2- You must not leak personal information of another person on the Internet. 3- You may not share photos or videos that others hold copyright 4- You must not violate the privacy of Others. 5- You should not post defamatory comments about others or engage in cyberbullying. <p>↪ Geotagging: Information including latitude and longitude included in photos and videos taken with smartphones and mobile phones. There is a risk of your location being identified and revealed, such as your home being located based on the location where the photo was taken.</p> <p>↪ Disinformation and rumors: False information that is deliberately spread or unsubstantiated rumors.</p> <p>↪ Problems that occur with smartphones and social media:-</p> <ol style="list-style-type: none"> 1. Internet addiction 2. Using a smartphone while walking 3. cybercrime 4. impersonation 5. Leaking personal information 	Using PowerPoint, create a design that displays points to consider when disseminating information	Draw a mind map to illustrate points to consider when disseminating information	You should not leak to someone else on the internet
Weekly evaluation			Put a (✓) or (x):- false information that is deliberately spread or unsubstantiated are Misinformation and rumors ()				

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Two	Unit Two: Laws and Rights in the Information Society Intellectual property rights

Introduction / What is the term for the rights that protect the invention of things or methods ?

Lesson objectives/

- 1- **differentiates** between types of intellectual property rights
- 2- **explains** the different rights of the author and the role of each in protecting the creator
- 3- **concludes** the importance of adhering to the laws regulating intellectual property by explaining the consequences of copyright infringement.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	<h1>Subject</h1>			Education al	Formative assessment	Evaluation
<p>Learn to know: Innovation</p> <p>Learn to get along with others: communication</p> <p>Scientific values: Respect the right of the king</p> <p>Globalization Issues: The Social Responsibility</p>	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> dialogue and discussion <input type="checkbox"/> cooperative learning	<p>↪ Intellectual property rights: These are rights that protect the product of human intellectual creativity in the literary, artistic, scientific and commercial fields, and include:</p> <p>◀ Industrial property rights: These are the rights that protect innovations and creations related to industrial and commercial activity. These rights require registration with the competent authority (such as the Egyptian Patent Office) to enjoy legal protection, which is known as the principle of formality</p> <p>◀ Types of industrial property rights: Patents - Utility Model Rights - Industrial Designs - Trademark Rights</p> <p>◀ Copyright: Rights relating to creative activities in the arts, including works such as novels, films, paintings, photographs, music, computer programs, and audiovisual works, are legally protected under intellectual property law. The principle of non-registration is followed</p> <p>◀ Creators' Rights Law:-</p> <p>← Moral rights of the author (creator) These are the rights that protect the personal relationship between the : creator and his work.</p> <p>← Financial rights) property rights) : the rights that give the creator the right to economically exploit These are his work</p> <p>← Related rights: granted to performers, record producers, and broadcasters in connection with the exploitation of works</p> <p>← Copyright protection period: the author's life plus 50 years after his death.</p> <p>← Copyright Infringement: As a general rule, when you reproduce or use someone else's copyrighted work on Website, it is necessary to obtain (permission) from the creator. Using the work without permission is considered a violation of copyright. The author.</p>			Education al	Formative assessment	Evaluation
Weekly evaluation	<p>Complete Rights granted to performers, record producers, and broadcasters</p>								
				Give examples of some works that require intellectual property rights. Explain why	Write the types of industrial property rights	Rights relating to creative activities in the arts			

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Three	Unit Two: Laws and Rights in the Information Society Use and disclosure of information

Introduction What is creative commons ?





Lesson objectives /

1- distinguishes between the duration of copyright protection and the Creative Commons license in terms of conditions and use.

2- applies the rules of correct quotation when using part of a protected work.

3- explains the purpose of copyright, mentioning some exceptions

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Solving problems Learn to get along with others: communication Issues of globalization and citizenship: Digital security</p>	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> dialogue and discussion <input type="checkbox"/> cooperative learning	<p>Use and disclosure of information :</p> <p>👉 The purpose of copyright: Copyright aims to contribute to cultural development by ensuring fair use. For business Copyrighted and protected rights</p> <p>👉 Exceptions: Under the purpose of copyright, there are exceptions where copyright can be limited to allow use without obtaining With permission of the copyright holder.</p> <p>👉 Quote: It is the process of using part of someone else's copyrighted work in your own copyrighted work</p> <p>If certain requirements are met, portions of a copyrighted work may be quoted. without obtaining . permission Methods and rules of quotation</p> <p>Your protected work should be the foundation . There must be a need to quote.</p> <p>It does not harm the legitimate interests of the author of the program. The source must be clearly identified.</p> <p>Make sure that the quoted material is clearly identifiable by placing it between quotation marks. The quoted material must not be altered.</p> <p>👉 Determining the duration of protection: The author's economic rights expire 50 years after the creator's death.</p> <p>👉 Creative Commons License : A mark indicating the terms of use. Copyrighted works</p>	<p>Presents some of the laws and rights of the information society</p>	<p>Write four types of industrial property rights</p>	<p>Examples of exceptions that allow the use of a work without permission include:</p>
Weekly evaluation	Complete:- It is the process of using part of someone else's copyrighted work in your own copyrighted wor						

Creative Commons License Types:		
	(*Credit to creator) (BY)	Display the title of the work and name of the creator.
	(*Non-commercial) (NC)	Do not use for (*commercial) purposes.
	(*No derivatives) (ND)	Do not alter the original copyrighted work.
	(*Same terms for adaptations) (SA)	Publish under the same combination of licenses as the original work.

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	first	Unit Three: Information Security
						Information security threats and measures

Introduction / What does information security consist of

Lesson objectives /

1-List the basic elements of information security **2 -Distinguish** between types of malware. **٣- Explain** some forms of cybercrime

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Learn to know: Critical thinking; analysis And the comparison Learn to live with others: social responsibility Issues of globalization and citizenship: Digital security	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and discussion <input type="checkbox"/> Collaborative Learning	<p>👉 First: Information security : It is the process of properly managing information and keeping it safe .</p> <p>👉 The three basic elements of information security are: Confidentiality - Safety - Availability</p> <p>👉 Various threats to information security:</p> <p>a) Unauthorized access</p> <p>b) Hacking</p> <p>c) Malware A general term for malware designed to harm computers --.</p> <p>👉 Infection can occur via websites, email attachments, or Drives USB or networks:</p> <p>Computervirus</p> <p>Trojan horse : A program disguised as a legitimate program, infiltrates the system and silently launches attacks.</p> <p>Worm: A program that copies itself and spreads across the Internet like a worm, expanding the scope of the infection.</p> <p>Spyware : A program that disguises itself as a legitimate program , infiltrates the system and silently launches attacks.</p> <p>(a Keylogger : A program that monitors and records keystrokes.</p> <p>(b Adware : Software that displays unwanted advertisements without the user's consent.</p> <p>Ransomware : A program that makes data inaccessible and demands a ransom to restore access to (δ the data.</p> <p>👉 Cybercrime: Criminal acts committed over computer networks.</p>	Give examples of some malware	Show some risks and choose the option where availability is at risk in terms of security Information	A Trojan horse is a program that disguises itself as a legitimate program to infiltrate a system

Weekly evaluation

The basic elements of information security are :**Complete** _____ , _____ , _____ .

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
First				First	The platform	Explanation of the different levels and platform tests on the Ministry's website

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Three	Unit Three: Information Security
						Information security threats and measures

Introduction / If you received a message on your mobile phone or email saying that you won a great prize, and all you had to do was click on the link and enter your information... would you believe it and enter your information?

Lesson objectives /

1- Defines The concept of invoice fraud and its types. **2- Explain** The concept of one-click fraud. **3- Explain** The meaning of phishing and its dangers.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to live with others: social responsibility</p> <p>Issues of globalization and citizenship: Digital</p> <p>Interactive whiteboard - textbook - presentation</p>			<p>Brainstorming <input type="checkbox"/> Collaborative Learning</p> <p>Dialogue and discussion <input type="checkbox"/></p>	<p>A. Invoice Fraud</p> <p>Fraudulent billing is a fraud in which someone is billed for a fictitious service they never used, with the aim of fraudulently obtaining money. One</p> <p>-click fraud: Fraud in which clicking a link(URL) on a website or email automatically leads to a message claiming a contract has been concluded followed by a request for an excessive payment.</p> <p>.B Unauthorized Acquisition of Information</p> <p>Phishing : Fraud that uses fake websites disguised as financial institutions or public bodies to steal personal information such as PIN codes or account details.</p> <p>Social engineering: A method of fraudulently obtaining information by exploiting human psychology or carelessness.</p> <p>Impersonation: Pretending to be someone else—such as making a phone call in the other person's name—to obtain information.</p> <p>Shoulder surfing: Peeping at someone's screen or keyboard to steal passwords or PIN codes.</p> <p>Dumper diving: Searching through trash to obtain discarded confidential information.</p> <p>Skimming: The illegal extraction of data from someone's credit or debit card and using the data to create a counterfeit card.</p> <p>Information security policy: A set of basic rules and guidelines established by a company or organization to maintain and protect information security.</p>	<p>Find a real news story in a newspaper or official website about an electronic fraud crime, and write a short summary of it (٥ lines).</p>	<p>Why do companies need a clear information security policy</p>	<p>..... A method of obtaining information fraudulently by exploiting Human psychology or neglect lack of awareness.</p>
Weekly evaluation	Complete: A set of basic rules and guidelines established by a company or organization to maintain and protect information security.						

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Two	Unit Six: Analog and Digital
						Binary system and amount of data

Introduction What is aByte How many Bits does it contain

Lesson objectives /

- 1- **Defines** eachbit andbyte As units of data measurement. 2- **Explain** the relationship betweenbit .byte and larger units .(KB, MB, GB, TB).
- 3- **Distinguish** between the decimal and binary systems.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to live with others: social responsibility</p> <p>Issues of globalization and citizenship: Digital security</p>	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>bit The smallest unit of information, it has only two states: 0 and 1, One bit can represent only two states; for example, "the switch is either open/closed," "the voltage is high or low," or "the direction of the magnet is north or south" The actual data is represented in the order of bits. In general, 1bit can represent 2^n different possibilities of data.</p> <p>Byte: A unit of 8 bits symbolized by the letter .B.</p> <p>8 bit = 1B = 1 Byte which can represent 256 possibilities .</p> <p>Data unit: The basic unit is 1B. The unit changes every 1,024 times.</p> <p>1024 B = 1KB 1024 KB = 1MB 1024 MB = 1GB 1024 GB = 1TB</p> <p>Decimal system: A method of representing numbers using ten digits from "0" to "9", A number expressed in the decimal system is symbolized by Decimal system</p> <p>Binary system: Binary system is a counting system that uses only two digits (0 and 1) to represent numbers, and is sometimes written With a small number (2) at the bottom right of .the number to indicate that it is binary</p> <p>Binary to Decimal Conversion: Multiply each binary digit by 2 to the power of its position starting with 2⁰ from the right, then 2¹ to the 1st then 2² to the 2nd then 2³ to the 3rd , then add (the results</p>	Convert some numbers from binary to decimal	Arrange the following units from smallest to largest: (GB – KB – B – MB – TB).	The basic unit is 1B. ---- The unit changes every
Weekly evaluation	Complete: To convert from binary to decimal Multiply each binary digit by						

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Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Explaining how to prepare for the first-level test .on the platform on the Ministry's website

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Three	Unit Six: Analog and Digital The sixteenth system

Introduction / Did you know that computers don't understand the decimal numbers we write, but only understand them as 0 and 1

Lesson objectives /

1- Defines The concept of character encoding, mentions the difference between ASCII and Unicode and explains the role of .Encoding and Decoding.

2- Converts short word Like Hello) to binary /hexadecimal ASCII code

3- estimated The importance of character encoding in communication between humans and computers

Skills, values and issues covered in the lesson	Teaching	Assistive technology for integration students if available	Teaching strategies	Subject			Educational activities	Formative assessment	Evaluation																																																							
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to live with others: social responsibility</p> <p>Issues of globalization and citizenship: Digital security</p>	Interactive whiteboard - textbook - presentation		<p>Brainstorming</p> <p>Collaborative Learning</p> <p>Dialogue and discussion</p>	<p>a) The sixteenth system: Hexadecimal A way to represent numbers using the digits 0 to 9 and the letters of the alphabet from A to F The number represented in the hexadecimal system is sometimes written with the number (16) subscript in the lower right corner of the number. This is known as the number sixteenth Hexadecimal number .</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr> <th>العشري</th> <th>الثنائي</th> <th>السادس عشر</th> </tr> </thead> <tbody> <tr><td>9</td><td>1001</td><td>9</td></tr> <tr><td>(A)</td><td>1010</td><td>10</td></tr> <tr><td>(B)</td><td>1011</td><td>11</td></tr> <tr><td>(C)</td><td>1100</td><td>12</td></tr> <tr><td>(D)</td><td>1101</td><td>13</td></tr> <tr><td>(E)</td><td>1110</td><td>14</td></tr> <tr><td>(F)</td><td>1111</td><td>15</td></tr> <tr><td>(10)</td><td>10000</td><td>16</td></tr> </tbody> </table> <table border="1" style="display: inline-table;"> <thead> <tr> <th>العشري</th> <th>الثنائي</th> <th>السادس عشر</th> </tr> </thead> <tbody> <tr><td>0</td><td>0000</td><td>0</td></tr> <tr><td>1</td><td>0001</td><td>1</td></tr> <tr><td>2</td><td>0010</td><td>2</td></tr> <tr><td>3</td><td>0011</td><td>3</td></tr> <tr><td>4</td><td>0100</td><td>4</td></tr> <tr><td>5</td><td>0101</td><td>5</td></tr> <tr><td>6</td><td>0110</td><td>6</td></tr> <tr><td>7</td><td>0111</td><td>7</td></tr> <tr><td>8</td><td>1000</td><td>8</td></tr> </tbody> </table> <p>Conversions between decimal, binary, and hexadecimal (b)</p> <ul style="list-style-type: none"> The computer does not deal directly with the decimal system, but rather relies on the binary system (and 10). For convenience, we use hexadecimal because it shortens long binary numbers. Convert from binary to hexadecimal: We divide the number into groups of 4 bits and convert each group to a hexadecimal value. Convert from hexadecimal to binary: We replace each hexadecimal symbol with its corresponding bits 4. Convert from hexadecimal to decimal: First we convert it to binary, then we use the base (sum of digits x base) 	العشري	الثنائي	السادس عشر	9	1001	9	(A)	1010	10	(B)	1011	11	(C)	1100	12	(D)	1101	13	(E)	1110	14	(F)	1111	15	(10)	10000	16	العشري	الثنائي	السادس عشر	0	0000	0	1	0001	1	2	0010	2	3	0011	3	4	0100	4	5	0101	5	6	0110	6	7	0111	7	8	1000	8	<p>Discuss the steps for converting from hexadecimal to binary with the example (A4 → 10100100).</p> <p>Write the concept of switching between systems and its importance in the computer.</p> <p>Express the number (3B)₁₆ In binary form.</p>		
العشري	الثنائي	السادس عشر																																																														
9	1001	9																																																														
(A)	1010	10																																																														
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1	0001	1																																																														
2	0010	2																																																														
3	0011	3																																																														
4	0100	4																																																														
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6	0110	6																																																														
7	0111	7																																																														
8	1000	8																																																														
Weekly evaluation	Complete: To convert the number (B2) ₁₆ To decimal, first convert it to binary ₂ then to decimal It will be Result ₁₀ .																																																															

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Four	Unit Six: Analog and Digital Digital representation of letters

Introduction/ How does a computer distinguish between letters, numbers, and symbols such as "45%^f"?

Lesson objectives /

- 1- **Defines** The concept of character encoding, mentions the difference between ASCII and Unicode and explains the role of .Encoding and Decoding.
- 2- **Converts** short word Like Hello) to binary /hexadecimal ASCII code
- 3- **estimated** The importance of character encoding in communication between humans and computers

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation																																																																																																																																																						
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p> <p>Interactive whiteboard – textbook – presentation</p>			<p>Brainstorming</p> <p>Collaborative Learning</p> <p>Dialogue and discussion</p>	<p>The computer does not understand letters directly, so each letter is represented by a numerical symbol(character code).</p> <p>Character code : A unique value assigned to each character, symbol</p> <p>ASCII .A code used to encode English letters, numbers, and some symbols :</p> <table border="1" data-bbox="790 818 1630 1321"> <thead> <tr> <th rowspan="2">Least Significant 4 Bits</th> <th colspan="10">Most Significant 4 Bits</th> </tr> <tr> <th>Binary</th> <th>Hexadecimal</th> <th>0000</th> <th>0001</th> <th>0010</th> <th>0011</th> <th>0100</th> <th>0101</th> <th>0110</th> <th>0111</th> </tr> </thead> <tbody> <tr><td>0000</td><td>0</td><td rowspan="16">Symbols for Controlling Computers (Omission)</td><td></td><td></td><td>SP</td><td>0</td><td>@</td><td>P</td><td>.</td><td>p</td></tr> <tr><td>0001</td><td>1</td><td>!</td><td>1</td><td>A</td><td>Q</td><td>a</td><td>q</td></tr> <tr><td>0010</td><td>2</td><td>"</td><td>2</td><td>B</td><td>R</td><td>b</td><td>r</td></tr> <tr><td>0011</td><td>3</td><td>#</td><td>3</td><td>C</td><td>S</td><td>c</td><td>s</td></tr> <tr><td>0100</td><td>4</td><td>\$</td><td>4</td><td>D</td><td>T</td><td>d</td><td>t</td></tr> <tr><td>0101</td><td>5</td><td>%</td><td>5</td><td>E</td><td>U</td><td>e</td><td>u</td></tr> <tr><td>0110</td><td>6</td><td>&</td><td>6</td><td>F</td><td>V</td><td>f</td><td>v</td></tr> <tr><td>0111</td><td>7</td><td>'</td><td>7</td><td>G</td><td>W</td><td>g</td><td>w</td></tr> <tr><td>1000</td><td>8</td><td>(</td><td>8</td><td>H</td><td>X</td><td>h</td><td>x</td></tr> <tr><td>1001</td><td>9</td><td>)</td><td>9</td><td>I</td><td>Y</td><td>i</td><td>y</td></tr> <tr><td>1010</td><td>A</td><td>*</td><td>:</td><td>J</td><td>Z</td><td>j</td><td>z</td></tr> <tr><td>1011</td><td>B</td><td>+</td><td>:</td><td>K</td><td>[</td><td>k</td><td>{</td></tr> <tr><td>1100</td><td>C</td><td>,</td><td>v</td><td>L</td><td>\</td><td>l</td><td> </td></tr> <tr><td>1101</td><td>D</td><td>-</td><td>=</td><td>M</td><td>]</td><td>m</td><td>}</td></tr> <tr><td>1110</td><td>E</td><td>.</td><td>v</td><td>N</td><td>^</td><td>n</td><td>~</td></tr> <tr><td>1111</td><td>F</td><td>/</td><td>?</td><td>O</td><td>_</td><td>o</td><td>DEL</td></tr> </tbody> </table>	Least Significant 4 Bits	Most Significant 4 Bits										Binary	Hexadecimal	0000	0001	0010	0011	0100	0101	0110	0111	0000	0	Symbols for Controlling Computers (Omission)			SP	0	@	P	.	p	0001	1	!	1	A	Q	a	q	0010	2	"	2	B	R	b	r	0011	3	#	3	C	S	c	s	0100	4	\$	4	D	T	d	t	0101	5	%	5	E	U	e	u	0110	6	&	6	F	V	f	v	0111	7	'	7	G	W	g	w	1000	8	(8	H	X	h	x	1001	9)	9	I	Y	i	y	1010	A	*	:	J	Z	j	z	1011	B	+	:	K	[k	{	1100	C	,	v	L	\	l		1101	D	-	=	M]	m	}	1110	E	.	v	N	^	n	~	1111	F	/	?	O	_	o	DEL	<p>Extract the corresponding binary or hexadecimal values from the ASCII table. : For some words like ICT</p> <p>Explain the difference between encoding and decoding.</p> <p>Choose: What system is used to represent all the world's languages? A . ASCII . B Unicode . C Decimal . D Binary</p>
Least Significant 4 Bits	Most Significant 4 Bits																																																																																																																																																												
	Binary	Hexadecimal	0000	0001	0010	0011	0100	0101	0110	0111																																																																																																																																																			
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1111	F		/	?	O	_	o	DEL																																																																																																																																																					
Weekly evaluation	Complete: When converting the word(Hi) to ASCII the binary encoding is(....).																																																																																																																																																												

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Introduction

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Calculations - Strings

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Four	Unit Six: Analog and Digital
						Follow the digital representation of letters

Introduction / How does a computer distinguish between letters, numbers, and symbols such as (#,@,!) ?

Lesson objectives / 1- **Defines** The concept of character encoding 2- **Converts** short word Like Hello) to binary /hexadecimalASCII code

3- **stimated** The importance of character encoding in communication between humans and computers.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation																		
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p>	Interactive whiteboard - textbook - presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>The computer does not understand letters directly, so each letter is represented by a numerical symbol(character code).</p> <p>Character code :a unique value assigned to each character</p> <p>ASCII code a code used to encode English letters, numbers, and some symbols . The table is shown on page Y• of the book</p> <p>Example : Convert the string "Hello" to binary and hexadecimal code.</p> <table border="1"> <tr> <td>o</td> <td>l</td> <td>l</td> <td>e</td> <td>H</td> <td>سلسلة</td> </tr> <tr> <td>01101111</td> <td>01101100</td> <td>01101100</td> <td>01100101</td> <td>01001000</td> <td>رمز الحرف (ثاني)</td> </tr> <tr> <td>6F</td> <td>6C</td> <td>6C</td> <td>65</td> <td>48</td> <td>رمز الحرف (السادس عشر)</td> </tr> </table> <p>Unicode A character encoding standard that combines characters from around the world : into a single character code. Due to the differences In symbol assignments .</p> <p>Representing a string with character codes. The reverse is known as decoding .</p> <p>A phenomenon that occurs due to mismatched encryption and decryption methods.</p> <p>Font Character shape data corresponding to character symbols :</p> <p>To display characters on a computer screen or printer output, there are two basic elements: the character code - character code And the line font .</p>	o	l	l	e	H	سلسلة	01101111	01101100	01101100	01100101	01001000	رمز الحرف (ثاني)	6F	6C	6C	65	48	رمز الحرف (السادس عشر)	Extract the corresponding binary or hexadecimal values from theASCII table. :For some words likeICT	Explain the difference between encoding and decoding.	What system is used to represent all the world's languagesASCII - Unicode - Decimal - Binary
o	l	l	e	H	سلسلة																				
01101111	01101100	01101100	01100101	01001000	رمز الحرف (ثاني)																				
6F	6C	6C	65	48	رمز الحرف (السادس عشر)																				
Weekly evaluation	Complete: When converting the word(Hi) toA CII The binary coding is(.....).																								

Teacher's Signature



Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Five	Unit Six: Analog and Digital

Introduction / How are addition and subtraction operations performed in binary numbers digit by digit ?

Lesson objectives /

1-Explains Binary addition and subtraction rule **٢- Applies** Steps of addition and subtraction in the binary system with practical examples

3- estimated The importance of arithmetic operations in understanding computer work.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation	
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p> <p>Interactive whiteboard – textbook – presentation</p>			<p><input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning</p> <p><input type="checkbox"/> Dialogue and discussion</p>	<p>↪ The computer performs calculations using the binary system</p> <p>When collecting:</p> <p>In binary addition, the value is carried over one place when the sum reaches 2</p> <p>(we put 0 and carry 1) $1+1=10$, $1+1+0=10$, $0+0=0$</p> <p>When subtracting</p> <p>In binary subtraction, when the subtraction is not enough, the value of 2 is borrowed from the next higher digit needs to borrow from the next column 1-0</p> <p>↪ These operations are essential to understanding how processors work</p>	 	A. Explain the concept of binary addition ($10=1+1$, $1=1+0$, $0=0+0$)	Compare the solutions to some mathematical operations and discuss common mistakes	Find the result of $11+10$ (2)-1. Check the correctness of the result by converting the -2 numbers to the decimal system
Weekly evaluation	<p>Complete: When adding $1+1$ (in the binary system, the result is:</p>							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Variables

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Comprehensive Check

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Six	Unit Six: Analog and Digital
						Arithmetic operations in the binary system

Introduction Does the computer know the signs $+$, $-$ (like we do?)

Lesson objectives /

1-Define concept of the complement (decimal and binary) and its role in representing negative numbers.

2-difference Between the complement of ones and the complement of twos

3- calculate Binary complement of a given binary number .

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to know: Problem solving ; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p>	Interactive whiteboard – textbook – presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>The computer does not know the sign $(+, -)$ Like humans, it uses complements to represent negative numbers.</p> <p>Representing negative numbers using complements:</p> <p>Complement: is the smallest number that, when added to a given natural number, produces a carryover to the next higher digit</p> <p>Complements are used to represent negative numbers in computers.</p> <p>(1 Decimal Complement)</p> <p>In the decimal system we use:</p> <ul style="list-style-type: none"> Complement: We subtract each number from 9. Complement: We take the complement of nine and then add 1. <p>(2 Binary Complement)</p> <p>In the binary system we use:</p> <ul style="list-style-type: none"> One's Complement: Flip each bit $(0 \leftrightarrow 1)$. Two's Complement: We take the complement of one and then add 1. <p>★ Quick summary for students</p> <ul style="list-style-type: none"> Decimal complement: We use it in the decimal system. Binary complement: We use it in the binary system. Ones complement: flip each bit. Two's complement: One's complement + 1 	Explain how to calculate the two's complement is used to represent negative numbers in computers	In the decimal system we use
Weekly evaluation	Complete : In the binary system we use						

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	—	Monthly Exam

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) If statement

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) If-else-statement

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
			for				
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Eight	Unit Six: Analog and Digital digitizing images

Introduction / How does a computer see and store images?

Lesson objectives /

1- **Defines** Pixel concept

2- **Define** Steps to digitize images

3- **distinguishes** Between point and vector coordination.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
<p>Learn to be: Creativity – Visual Thinking – Accuracy of Observation Learn to get along with others: respect and communication</p>	Interactive whiteboard – textbook – presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>↩ Pixel image digitization Pixel is the smallest unit that makes up an image. A digital image is represented in the order of pixels. ↩ Image digitization procedures Images captured with digital cameras or image scanners are digitized and imported into a computer</p> <ul style="list-style-type: none"> ▪ image is divided into pixels and the brightness level representing each pixel is extracted. ▪ Resolution: It is the degree of accuracy and clarity of the pixels when the sampling process is carried out. The unit of resolution is dpi is sometimes expressed as vertical pixels × horizontal pixels ▪ Digital quantization: Converts the brightness of each pixel into numeric values divided into several levels. ▪ Gradation: The level value that represents the color intensity of each pixel. Gradation is determined by the number of bits allocated to each pixel. ▪ Encoding: Expressing quantitative values in binary numbers (0 and 1). ▪ Dot matrix: A method of representing text or shapes using a grid of pixels. ▪ Vector format: A representation that includes information about the coordinates of the points that make up the image <p>↩ Color representation: The three primary colors of light The three primary colors of pigment Additive color mixing Subtractive color mixing. 24-bit full color</p>	Find some images on the internet and indicate whether they are in raster or vector format	Find some images on the internet and specify the format of each file	What is the difference between primary colors of light and primary colors of pigment?
Weekly evaluation	Complete The unit of measurement for digital image resolution is.....						

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Ten	Unit Six: Analog and Digital
						Information design

Introduction / How does a computer see and store images ?

Lesson objectives /

1- Defines Data Design Concept

2-Define Simple examples of each method of data design

٣- distinguishes Between data design methods .

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject			Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p>	Interactive whiteboard – textbook – presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>✦ First: The concept of data design</p> <ul style="list-style-type: none"> Information Design: It is organizing data in a creative way to convey information in a clear and easy-to-understand way to the audience. <p>✦ Second: Data design methods</p> <ol style="list-style-type: none"> abstraction (Abstraction) Extracting the most important part of a large amount of data and : displaying it simply. Pictogram: Using a picture symbol to convey information without words. icon (Icon): A small image representing a program or file. Visualization (Visualization) Displaying data visually so that we can understand it easily .: Restructuring (Structuring) .Organizing data into stages or levels : <p>✦ Third: Techniques to facilitate understanding</p> <ol style="list-style-type: none"> User Interface (UI): The way a human communicates with a device. <ul style="list-style-type: none"> CUI: Text command interface (we write commands in words). GUI: Graphical interface (icons and buttons). User experience (UX): The user’s feeling while using the software/website (easy? complex? (?enjoyable. possibility (Affordance): Significance (Signifier): Usability Usability: How easy the design is to use. accessibility (Accessibility) Facilitating access for all (including people with disabilities) .: Comprehensive design (Universal Design) A design that suits all people, regardless of their : language, age, or abilities. 	Search the Internet for some designs and explain whether their design is clear and easy, and state the reason	Write methods for designing data in a presentation	Compare CUI and GUI in terms of ease of use.		
Weekly evaluation	<p>Complete is a pictorial symbol used to convey information without words.</p>								

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Multiple condition

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
			for				
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Reactive processes

Introduction / -----

Lesson objectives / -----

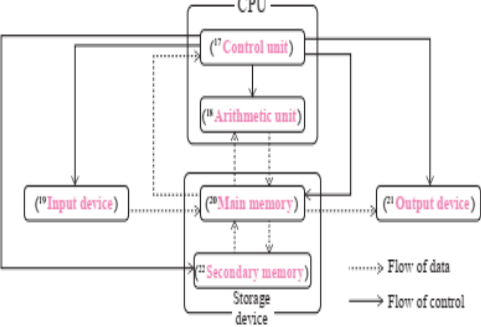
Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	One	Unit Seven: Computer Components
						Computer configuration

Introduction/What is the difference between RAM and HARD DISK ?

Lesson objectives / 1- Defines The five main components of a computer **2- distinguishes** Between the control unit and the arithmetic and logic unit **3- recognize** On some types of interfaces.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation																		
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p> <p>Issues of globalization and citizenship: Digital security</p> <p>Interactive whiteboard – textbook – presentation</p>			<p>Teaching strategies</p> <p><input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion</p>	<p>The five main components of a computer – The relationship between the five main components of a computer:</p> <table border="1"> <thead> <tr> <th>Five major components</th> <th>Role</th> <th>Example of major component</th> </tr> </thead> <tbody> <tr> <td>Control unit</td> <td rowspan="2">CPU Executes a computer's ⁽¹⁰⁾instructions and issues ⁽¹¹⁾commands to each function.</td> <td rowspan="2">CPU</td> </tr> <tr> <td>Arithmetic unit</td> </tr> <tr> <td rowspan="2">Storage device</td> <td>Main memory device (Memory) ⁽¹³⁾Temporarily stores programs, data, etc.</td> <td>Main memory</td> </tr> <tr> <td>Secondary memory (Storage) For ⁽¹⁴⁾long-term storage of programs and data.</td> <td>Hard disk, SSD, USB memory</td> </tr> <tr> <td>Input device</td> <td>⁽¹⁵⁾Inputs information from external sources.</td> <td>Keyboard, mouse, scanner</td> </tr> <tr> <td>Output device</td> <td>⁽¹⁶⁾Outputs information outside of the computer.</td> <td>Display, printer</td> </tr> </tbody> </table> <p>Interface:A component that mediates information exchange. It is used to connect the main computer and peripheral devices</p> <p>USB: is the most widely used interface for computer peripherals.</p> <p>HDMI:A communication standard that allows video, audio, and other data to be transmitted over a single cable</p> <p>ETMERNET:A communication standard used in wired local area networks in home, office, etc</p> 	Five major components	Role	Example of major component	Control unit	CPU Executes a computer's ⁽¹⁰⁾ instructions and issues ⁽¹¹⁾ commands to each function.	CPU	Arithmetic unit	Storage device	Main memory device (Memory) ⁽¹³⁾ Temporarily stores programs, data, etc.	Main memory	Secondary memory (Storage) For ⁽¹⁴⁾ long-term storage of programs and data.	Hard disk, SSD, USB memory	Input device	⁽¹⁵⁾ Inputs information from external sources.	Keyboard, mouse, scanner	Output device	⁽¹⁶⁾ Outputs information outside of the computer.	Display, printer	<p>Explain the relationship between the five main components of a computer with a presentation</p> <p>Draw a diagram showing the relationship between the five computer units.</p> <p>A component that mediates information exchange. It is used to connect the main computer and peripheral devices</p>		
Five major components	Role	Example of major component																							
Control unit	CPU Executes a computer's ⁽¹⁰⁾ instructions and issues ⁽¹¹⁾ commands to each function.	CPU																							
Arithmetic unit																									
Storage device	Main memory device (Memory) ⁽¹³⁾ Temporarily stores programs, data, etc.	Main memory																							
	Secondary memory (Storage) For ⁽¹⁴⁾ long-term storage of programs and data.	Hard disk, SSD, USB memory																							
Input device	⁽¹⁵⁾ Inputs information from external sources.	Keyboard, mouse, scanner																							
Output device	⁽¹⁶⁾ Outputs information outside of the computer.	Display, printer																							
Weekly evaluation	Complete: The most widely used interface for computer peripherals																								

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	TOFAS ""practice test

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Logical factors

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Reactive processes

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Two	Unit Seven: Computer Components
						computer software

Introduction/ What is the difference between hardware and software?

Lesson objectives /

- 1- **Defines** System Software Concept
- 2- **Differentiate** between types Software
- 2- **estimated** The importance of character encoding in communication between humans and computers .

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject			Educational activities	Formative assessment	Evaluation
<p>Learn to know: Critical thinking; analysis And the comparison</p> <p>Learn to get along with others: respect and communication</p> <p>Interactive whiteboard – textbook – presentation</p>			<p><input type="checkbox"/> Brainstorming</p> <p><input type="checkbox"/> Collaborative Learning</p> <p><input type="checkbox"/> Dialogue and discussion</p>	<p>↪ Hardware : Devices such as the main computer unit and peripheral devices.</p> <p>↪ Software : The programs and data that run on the hardware.</p> <p>↪ System software : The software required to operate the hardware.</p> <p>↪ Operating system (OS) is a type of system software responsible for the basic functions of a computer. The operating system has management functions such as task management, memory management, and file management.</p> <p>↪ Application software : Software that runs on top of system software. Also known as system software. The application.</p> <p>↪ Device driver : .A program that controls the communication process between the connected device Connected Device and Software on the computer. Also known simply as "Drive."</p>	Design a presentation that demonstrates the .system software	.State the definition of system software	It is a program that controls the communication process between the connected device Connected Device and Software on the Computer		
Weekly evaluation: Complete Software and data running on hardware								

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Comprehensive review

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Comprehensive review

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Comprehensive review

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

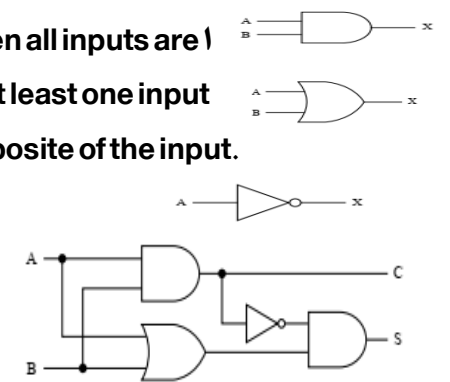
Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Three	Unit Seven: Computer Components
						logic circuits

Introduction / How does the computer understand the difference between on/off? or true/false ?

Lesson objectives /

- 1- **Defines** Logic Circuits Concept
- 2- **Distinguish** between the semi-collection circle and the full collection circle
- 3- **distinguishes** Between the value of TRUE and FALSE in the computer system.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Learn to know: Critical thinking; analysis And the comparison Learn to get along with others: respect and communication	Interactive whiteboard – textbook – presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>🔗 Logic circuits</p> <p>(1) logical operations Operations performed using sets of digits 0 and 1. Computers, "1" is treated as true and as false "0"</p> <p>(2) logical circuit A circuit designed to perform logical operations.</p> <p>(3) Correctness table :A table showing all possible combinations of inputs and outputs. For a logical circuit.</p> <p>(4) AND gate logic circuit : A circuit that outputs 1 .only when all inputs are 1</p> <p>(5) OR gate logic circuit : A circuit that outputs 1 .if there is at least one input</p> <p>(6) (NOT gate inverter circuit A circuit that outputs the opposite of the input.</p> <p>🔗 adder circuit and full adder</p> <p>Half adder circuit :circuit that represents the addition of one-digit numbers, consisting of not ,AND ,and OR gates</p> <p>Full adder circuit: A circuit that takes into account the transfer from the lower bit and the transfer to the higher bit</p> 	Design a presentation that demonstrates logic .circuits	Draw the semi-circle and the full-circle	Operations performed using sets of digits0 and 1 in computers
Weekly evaluation	Complete : It is a circuit that outputs the opposite result of the input.....						

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

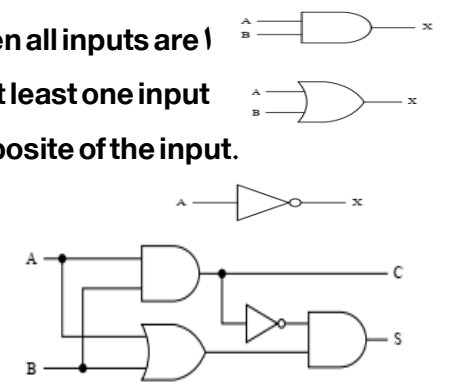
Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	Three	Unit Seven: Computer Components
						logic circuits

Introduction / How does the computer understand the difference between on/off? or true/false ?

Lesson objectives /

- 1- **Defines** Logic Circuits Concept
- 2- **Distinguish** between the semi-collection circle and the full collection circle
- 3- **distinguishes** Between the value of TRUE and FALSE in the computer system.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Learn to know: Critical thinking; analysis And the comparison Learn to get along with others: respect and communication	Interactive whiteboard – textbook – presentation		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Collaborative Learning <input type="checkbox"/> Dialogue and discussion	<p>👉 Logic circuits</p> <p>(1) logical operations Operations performed using sets of digits 0 and 1. Computers, "1" is treated as true and as false "0"</p> <p>(2) logical circuit A circuit designed to perform logical operations.</p> <p>(3) Correctness table :A table showing all possible combinations of inputs and outputs. For a logical circuit.</p> <p>(4) AND gate logic circuit : A circuit that outputs 1 .only when all inputs are 1</p> <p>(5) OR gate logic circuit : A circuit that outputs 1 .if there is at least one input</p> <p>(6) (NOT gate inverter circuit A circuit that outputs the opposite of the input.</p> <p>👉 adder circuit and full adder</p> <p>Half adder circuit :circuit that represents the addition of one-digit numbers, consisting of not ,AND ,and OR gates</p> <p>Full adder circuit: A circuit that takes into account the transfer from the lower bit and the transfer to the higher bit</p> 	Design a presentation that demonstrates logic .circuits	Draw the semi-circle and the full-circle	Operations performed using sets of digits 0 and 1 in computers
Weekly evaluation	Complete : It is a circuit that outputs the opposite result of the input.....						

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Functions

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	_____	Revision

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Types

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Types

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Types

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	_____	Revision

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Matrices

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature

Grade	Class	Date	Period	Term	Lesson	Lesson Title
first				first	platform	Practical (Qureo JavaScript) Matrices

Introduction / -----

Lesson objectives / -----

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	Subject	Educational activities	Formative assessment	Evaluation
Weekly evaluation							

Teacher's Signature