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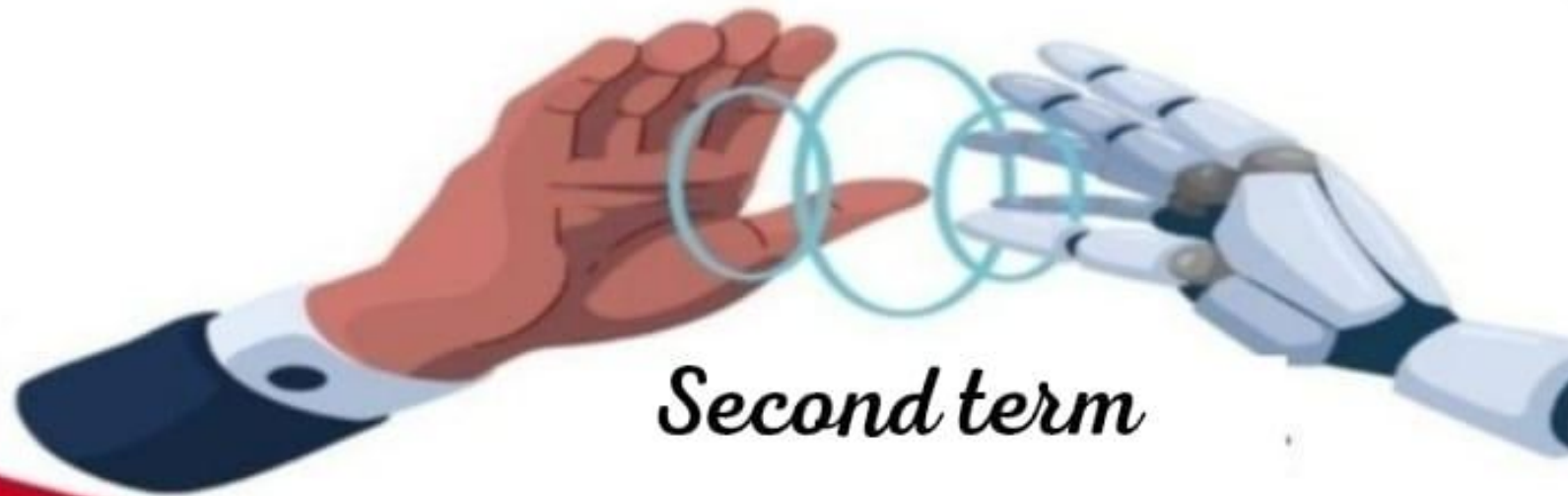
2026



# ICT

**Lesson Preparation book**

*4th primary*



*Second term*

# 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**

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**Supervisor**

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**School Principal**

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## 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**

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**Supervisor**

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**School Principal**

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## General Objectives of the Information and Communication Technology (ICT) Subject

- **To provide** students with the appropriate level of scientific and fundamental knowledge and skills related to problem- solving.
- **To develop** basic scientific thinking skills.
- **To acquire** the ability to use and integrate technology, multimedia, and networks as tools to serve and complement various academic disciplines.
- **To train students to** work effectively in a team through their use of computer technologies.
- **To create** websites and define their features.
- **To cultivate** students' awareness of the importance of technological literacy and intercultural communication.
- **To acquire** the fundamental concepts of web page design.
- **To foster** students' appreciation for the role of science and scientists.
- **To become** familiar with the Microsoft Office suite.
- **To raise** students' awareness of information ethics and the rules for safe internet use.
- **To collect** and present data in an engaging manner.

Teacher

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Supervisor

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School Principal

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## Specific Objectives of the Information and Communication Technology (ICT) Subject

- **Applying** a methodology of breaking down a large ICT problem into smaller, manageable parts to facilitate its solution.
- **Formulating** a scientific hypothesis about how a specific technical problem might occur and testing this hypothesis.
- **Explaining** the importance of seeking help from a teacher or others to solve technical problems.
- **Identifying** digital tools that can be used to design a poster or billboard, such as Publisher or PowerPoint.
- **Describing** three digital concepts to consider when designing (e.g., margins, font type and size, colors, or images).
- **Writing** an attractive digital poster, paying attention to the selection of appropriate fonts and colors.
- **Explaining** the concept of an algorithm.
- **Identifying** the importance of choosing the right keywords for digital research.
- **Writing** a simple algorithm.
- **Explaining** the concept of coding.
- **Discussing** the importance of programming in creating the video games, animations, and movies they watch.
- **Applying** logical reasoning to create programming instructions (steps) to solve a maze or a simple task.
- **Identifying** some programs and applications that rely on programming.
- **Explaining** the Scratch programming interface.
- **Practicing** some simple steps in the Scratch programming language.
- **Identifying** common tools and programs used in image and graphics editing, such as Paint.
- **Lists** three examples of how digital tools facilitate daily tasks.
- **Explains** two types of digital tools that can be used in daily life.
- **Lists** as many ideas as possible for using digital applications to help with learning.
- **Defines** the concept of digital citizenship.
- **Explains** the rights and responsibilities of a digital citizen.
- **Applies** rules for safe and responsible internet use.
- **Understands** the concept of online communication.
- **Identifies** synchronous and asynchronous communication tools.
- **Uses** one formal communication tool correctly.
- **Defines** the difference between using instant messaging (informal) and email (formal) for communication.
- **Writes** a correct email message, including the recipient's address and a clear subject.
- **Applies** rules of polite behavior and security when conducting video chats.
- **Recognizes** online learning environments, such as Edmodo.
- **Recognizes** three different and reliable sources for online learning and research.
- **Describes** some features of an interactive map designer.
- **Organizes** their notes after completing research using an outline that includes an introduction, supporting paragraphs, and a conclusion.
- **Plans** digital research effectively by defining the topic and selecting appropriate types of sources.
- **Distinguishes** between reliable and unreliable sources. the Internet.

Teacher

Supervisor

School Principal

# The Study Plan for the Information and Communication Technology (ICT) Curriculum for Grade Four – Academic Year

Month	week	date	topic	notes	Holidays,
<b>Unit 3 (The Role Of Information And Communication Technology in Our Lives )</b>					
February 2026	1	7/2/2026	<b>Lesson 1:</b> Technological applications in our lives.	According to Resolution 136, a weekly test is conducted.	Eid al-Fitr begins on Saturday, March 21, 2026. The first monthly exam will be held from the 25/3/2026 to the 3rd of April 2026
	2	14/2/2026	<b>Lesson 2:</b> Digital citizenship: My rights and responsibilities online.		
	3	21/2/2026	<b>Lesson 3:</b> Methods of online communication: synchronous and asynchronous.		
March 2026	4	28/2/2026	<b>Lesson 4:</b> Digital communication tools.		
	5	7/3/2026	<b>Lesson 5:</b> My tools for online learning.		
	6	14/3/2026	<b>Lesson 6:</b> Digital research skills: Planning and evaluating sources.		
	7	21/3/2026	<b>Lesson 6:</b> Digital research skills: Planning and evaluating sources.		
<b>Unit Four: (My Digital Project)</b>					
	8	28/3/2026	<b>Lesson 1:</b> digital problems Solving.		
	9	4/4/2026	<b>Lesson 2:</b> Presenting information.		The monthly meeting for parents wwill held on 8/4/2026
	April 2026	10	11/4/2026	<b>Lesson 3:</b> Algorithms.	
11		18/4/2026	<b>Lesson 4:</b> Programming :the computers language and game development.		
12		25/4/2026	<b>Lesson 5:</b> Exploring the Scratch programming language.	March test	Sinai Liberation Day, Saturday 24 4/2026
13		2/5/2026	<b>Lesson 6:</b> Graphic art - creating and editing digital images.		Labor Day, Friday 5/1/2026
May 2026	14	9/5/2026	<b>The project and general revision</b>		Second Monthly Exam from 26/4/ to 30/4/2026

**Teacher**

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**Supervisor**

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**School Principal**

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Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	One	Technological applications in our lives

## Introduction / What are the Technological applications in our lives?

**Lesson Objectives /** - gives three examples of how digital tools can facilitate daily tasks.

-explains two types of digital tools he can use in his daily life.

-lists as many ideas as possible for using digital applications to help him learn

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 Technological applications . Scientific Values: Technological applications . Globalization Issues: Technological applications.	Interactive board– Textbook – Introductory Video		Brainstorming <input type="checkbox"/> Dialogue and discussion <input type="checkbox"/> Cooperative Learning	<p><b>Digital Tools:</b> These are applications that help people easily access the services they need, they are beneficial to us and to society.</p> <p><b>Using Digital Tools:</b> 1-Developing practical solutions that help people in their daily lives (shopping-communication-learning) 2- Designing useful applications and websites.</p> <p><b>Note:</b> Useful information is now easily accessible to everyone.</p> <p><b>Benefits of Digital Tools</b></p> <table border="1"> <thead> <tr> <th>1-easy access to services</th> <th>2- Facilitating travel and entertainment</th> <th>3-Facilitating communication</th> </tr> </thead> <tbody> <tr> <td>For example: Using apps to pay bills and getting help from the relevant authority.</td> <td>For example: Booking tickets online with one click Airplane and train tickets Tickets for visiting museums and archaeological sites.</td> <td>It helps us communicate better, leading to: Building good relationships. Solving problems.</td> </tr> </tbody> </table> <p><b>The benefits of using technology positively include:</b> 1-EKB make the learning easier it has a wealth of information. 2-helps us be more successful in our lives. 3-It helps societies develop.</p>	1-easy access to services	2- Facilitating travel and entertainment	3-Facilitating communication	For example: Using apps to pay bills and getting help from the relevant authority.	For example: Booking tickets online with one click Airplane and train tickets Tickets for visiting museums and archaeological sites.	It helps us communicate better, leading to: Building good relationships. Solving problems.		The student list some of Technological applications	The student explain how to use a Technological applications	Complete Booking tickets online with one click Airplane and train tickets are .....
1-easy access to services	2- Facilitating travel and entertainment	3-Facilitating communication												
For example: Using apps to pay bills and getting help from the relevant authority.	For example: Booking tickets online with one click Airplane and train tickets Tickets for visiting museums and archaeological sites.	It helps us communicate better, leading to: Building good relationships. Solving problems.												
Weekly Assessment	Complete: ..... These are applications that help people easily access the services they need, and they are beneficial to us and to society.			Teacher's Signature										




Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	Three	Methods of online communication: synchronous and asynchronous

**Introduction /** Have you ever thought about the different ways you communicate with your friends or teacher using technology?

**Lesson Objectives /** - To understand the concept of online communication.

- To identify synchronous and asynchronous communication tools.

- To use one of the formal communication tools correctly.

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: decision-making Scientific Values: Independence – Transparency Globalization Issues: Participation in school research.	Interactive board– Textbook – Introductory Video		Brainstorming □ Dialogue and discussion □ Cooperative Learning	<p><b>Online communication methods: Synchronous communication:-</b> is communication that occurs in real time: that is, it requires an immediate response, like talking face-to-face, but over the internet. <b>Example:</b> when you are talking on the phone or standing and talking to your classmate.</p> <p><b>Asynchronous communication:-</b> This type of communication does not require an immediate response. The other party can read and reply to it at any time later, and the information is transferred without you needing to be present at the same time.</p> <p><b>Tools for simultaneous communication:-</b></p> <table border="1"> <thead> <tr> <th>(Chat rooms)</th> <th>(Instant Messaging)</th> <th>(Video chats)</th> </tr> </thead> <tbody> <tr> <td>It allows for written communication in groups about a specific topic and provides quick responses. <b>Required tools:</b> A web browser such as Google Chrome Or a mobile application.</td> <td>It allows you to send text messages or add photos and videos, and they arrive instantly. <b>Required tools:</b> - Instant messaging software on your computer or a mobile app.</td> <td>It allows for direct communication with one or more people, where you can see and hear each other instantly. <b>Required equipment:</b> A device with a camera and microphone. A mobile app or computer program.</td> </tr> </tbody> </table> <p><b>Asynchronous Communication Tools:-</b> Email: Used to send formal or lengthy messages, such as requesting help from your teacher. - Communicating with an administrator. <b>Required Tools:</b> An internet browser to access the email website, or an email application on your device.</p> <p><b>When do we use synchronous and asynchronous communication?</b></p> <table border="1"> <thead> <tr> <th>synchronous</th> <th>asynchronous</th> </tr> </thead> <tbody> <tr> <td>1. When discussing a topic quickly. 2. When an immediate answer is needed. 3. When quickly exchanging simple information and files.</td> <td>1. When sending an formal messages. 2. When you don't need an immediate response. 3. When sending important and large files (such as a school assignment).</td> </tr> </tbody> </table> <p><b>Mobile application</b> it is a program on your phone that gives you direct access to different programs such as email ,IM, social media and video chat</p>	(Chat rooms)	(Instant Messaging)	(Video chats)	It allows for written communication in groups about a specific topic and provides quick responses. <b>Required tools:</b> A web browser such as Google Chrome Or a mobile application.	It allows you to send text messages or add photos and videos, and they arrive instantly. <b>Required tools:</b> - Instant messaging software on your computer or a mobile app.	It allows for direct communication with one or more people, where you can see and hear each other instantly. <b>Required equipment:</b> A device with a camera and microphone. A mobile app or computer program.	synchronous	asynchronous	1. When discussing a topic quickly. 2. When an immediate answer is needed. 3. When quickly exchanging simple information and files.	1. When sending an formal messages. 2. When you don't need an immediate response. 3. When sending important and large files (such as a school assignment).		Create simulated pictures of devices that help people with special needs.	Use Microsoft Word to write sentences about the advantages and disadvantages of advanced technology.	Complete: The main objectives of assistive technology are: .....
(Chat rooms)	(Instant Messaging)	(Video chats)																
It allows for written communication in groups about a specific topic and provides quick responses. <b>Required tools:</b> A web browser such as Google Chrome Or a mobile application.	It allows you to send text messages or add photos and videos, and they arrive instantly. <b>Required tools:</b> - Instant messaging software on your computer or a mobile app.	It allows for direct communication with one or more people, where you can see and hear each other instantly. <b>Required equipment:</b> A device with a camera and microphone. A mobile app or computer program.																
synchronous	asynchronous																	
1. When discussing a topic quickly. 2. When an immediate answer is needed. 3. When quickly exchanging simple information and files.	1. When sending an formal messages. 2. When you don't need an immediate response. 3. When sending important and large files (such as a school assignment).																	
Weekly Assessment	Complete Synchronous communication is .....				Teacher's Signature													



Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	four	Digital communication tools.

## Introduction / How can you conduct a video chat?

**Lesson Objectives /-** To identify the difference between using instant messaging (informal) and email (formal) for communication.

-To write a proper email message, including the recipient's address and a clear subject.

-To apply rules of polite behavior and security when conducting video chats.

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><b>Learn to Know:</b> Cooperation and teamwork.</p> <p><b>Scientific Values:</b> Respect.</p> <p><b>Globalization Issues:</b> intercultural communication.</p> <p><b>Interactive board – Textbook – Introductory Video</b></p>			<p>Brainstorming □ Dialogue and discussion □ Cooperative Learning</p>	<p><b>The correct and responsible ways to use digital communication tools:</b></p> <p><b>Video Conversations:</b> Virtual classrooms rely on a set of rules that ensure organized participation</p>  <table border="1"> <thead> <tr> <th>Secure background:</th> <th>Appropriate Appearance</th> <th>Respecting others:</th> <th>Camera and microphone</th> </tr> </thead> <tbody> <tr> <td>Ensure there is nothing in the background (such as your home address or personal information) that is visible to participants.</td> <td>If the camera is on, it is recommended to Wear appropriate clothing. Behave as you would in a public place.</td> <td>Please mute your microphone when someone is speaking to avoid disturbing others.</td> <td>Make sure your microphone and camera are turned on (obtain permission).</td> </tr> </tbody> </table> <p><b>Steps to join a video chat:</b></p> <ol style="list-style-type: none"> <li>1- Click on the chat link.</li> <li>2- Wait until the person in charge allows you to join the chat.</li> </ol> <p><b>Instant Messaging and Chat Rooms:</b> This is a quick and fun way to communicate, but you should follow these guidelines:</p> <ol style="list-style-type: none"> <li>1- Be polite.</li> <li>2- Use short phrases.</li> <li>3- Be respectful.</li> </ol> <p><b>Using Email:</b> This is the best tool for more formal situations, such as: contacting your teacher. Communicating with an official entity.</p> <p><b>Roles of Email Writing :</b></p> <ol style="list-style-type: none"> <li>1- Write addresses.</li> <li>2- Respect the rules.</li> <li>3- Include a greeting and closing.</li> <li>4- Ensure attachments are included.</li> </ol> 				Secure background:	Appropriate Appearance	Respecting others:	Camera and microphone	Ensure there is nothing in the background (such as your home address or personal information) that is visible to participants.	If the camera is on, it is recommended to Wear appropriate clothing. Behave as you would in a public place.	Please mute your microphone when someone is speaking to avoid disturbing others.	Make sure your microphone and camera are turned on (obtain permission).	<p><b>Using Microsoft Word or any other word processing program:</b></p>	<p><b>Using Microsoft Word or any other word processing program:</b></p>	<p><b>Using Microsoft Word or any other word processing program:</b></p>
Secure background:	Appropriate Appearance	Respecting others:	Camera and microphone															
Ensure there is nothing in the background (such as your home address or personal information) that is visible to participants.	If the camera is on, it is recommended to Wear appropriate clothing. Behave as you would in a public place.	Please mute your microphone when someone is speaking to avoid disturbing others.	Make sure your microphone and camera are turned on (obtain permission).															

Weekly Assessment

Complete: Your video chat background should not contain any information.....








Teacher's Signature

Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	five	My tools for online learning

**Introduction /** Are there other ways to learn besides the classroom?

**Lesson Objectives /-** To identify online learning environments.

**-To identify** three reliable and different online learning and research resources. **- To describe** some features of an interactive map designer.

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><b>Learn to Know:</b> Creativity and Problem Solving .  <b>Scientific Values:</b> Technological Awareness .  <b>Globalization Issues:</b> Participation in school research.</p> <p><b>Interactive board– Textbook – Introductory Video</b></p>			<p><b>Brainstorming</b> <input type="checkbox"/> Dialogue and discussion <input type="checkbox"/> Cooperative Learning</p>	<p><b>Online Learning Environments:</b>            These are platforms that allow teachers and students to communicate with each other. One of the most well-known examples is the Edmodo platform.  <b>The Edmodo platform helps teachers to:</b>            - Deliver lessons                      - Upload tests and homework.  <b>The Edmodo platform helps students to:</b>            - Communicate with their teacher.            - Submit completed assignments.            - Download lessons and tests from their teacher.</p> <p><b>Online Learning Sources:</b>            These are vast libraries that provide information online. It is essential to rely on reliable sources when searching for information.</p> <p><b>Reliable Learning Resources:</b></p> <table border="1"> <thead> <tr> <th>Interactive map designer</th> <th>"Vlaby"</th> <th>(EKB)</th> </tr> </thead> <tbody> <tr> <td> <p>A free tool that works on tablets and laptops. It provides online mapping tools. It allows data collection and searching using maps. It can be accessed via the link:  <a href="https://mapmaker.nationalgeographic.org">https://mapmaker.nationalgeographic.org</a></p> </td> <td> <p>An interactive virtual lab platform. It enables students and teachers to conduct fun, hands-on experiments, making learning interactive, not just informational.  <b>Platform link:</b>  <a href="https://viaby.com">https://viaby.com</a></p>  </td> <td> <p>A huge online library in Egypt It contains diverse topics and resources in all fields, such as: articles - videos  <b>Website address</b>  <a href="http://ekb.eg">http://ekb.eg</a></p>  </td> </tr> </tbody> </table>			Interactive map designer	"Vlaby"	(EKB)	<p>A free tool that works on tablets and laptops. It provides online mapping tools. It allows data collection and searching using maps. It can be accessed via the link:  <a href="https://mapmaker.nationalgeographic.org">https://mapmaker.nationalgeographic.org</a></p>	<p>An interactive virtual lab platform. It enables students and teachers to conduct fun, hands-on experiments, making learning interactive, not just informational.  <b>Platform link:</b>  <a href="https://viaby.com">https://viaby.com</a></p> 	<p>A huge online library in Egypt It contains diverse topics and resources in all fields, such as: articles - videos  <b>Website address</b>  <a href="http://ekb.eg">http://ekb.eg</a></p> 		<p><b>Use a reliable digital resource to help you learn.</b></p>	<p>Create a PowerPoint presentation about learning environments.</p>	<p>Mark (✓) next to the correct statement, and (X) next to the incorrect statement:</p>
Interactive map designer	"Vlaby"	(EKB)														
<p>A free tool that works on tablets and laptops. It provides online mapping tools. It allows data collection and searching using maps. It can be accessed via the link:  <a href="https://mapmaker.nationalgeographic.org">https://mapmaker.nationalgeographic.org</a></p>	<p>An interactive virtual lab platform. It enables students and teachers to conduct fun, hands-on experiments, making learning interactive, not just informational.  <b>Platform link:</b>  <a href="https://viaby.com">https://viaby.com</a></p> 	<p>A huge online library in Egypt It contains diverse topics and resources in all fields, such as: articles - videos  <b>Website address</b>  <a href="http://ekb.eg">http://ekb.eg</a></p> 														
<b>Weekly Assessment</b>	Put (✓) or (✗): Online learning environments allow teachers to provide virtual lessons to students. ( )						<b>Teacher's Signature</b>									

Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	Six	Digital research skills: Planning and evaluating sources.

## Introduction / What is meant by digital research skills?

- Lesson Objectives /**
- To **organize** his notes after completing the research using an outline that includes an introduction, supporting paragraphs, and a conclusion.
  - To **plan** digital research correctly, defining the topic and choosing appropriate types of sources.
  - To **distinguish** between reliable and unreliable sources

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	<h1>Subject</h1>			Educational activities	Formative assessment	Evaluation		
<p><b>Learn to Know: Creativity and Problem Solving</b>  <b>Globalization Issues: Technological Awareness</b>  <b>Globalization Issues: Participation in digital research.</b></p> <p><b>Interactive board– Textbook – Introductory Video</b></p>			<p><input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning</p>	<p><b>Steps for Planning Digital Research:</b></p> <p><b>1- Choosing a Topic :-</b> Think about your research topic before starting Define your objective, the basic information you know, and the additional points you want to learn. Write down simple notes.</p> <p><b>2- Choosing Types of Sources [Digital research includes: - Images – Audio recordings - Videos - Written texts]</b></p> <p><b>3-Evaluating Sources. :</b> Consult your teacher for reliable sources. Evaluate the information sources you find: Are they reliable or not?</p> <p style="text-align: center;"><b>Types of Sources:</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="background-color: #ffffcc;">Unreliable sources</th> <th style="background-color: #ffffcc;">Reliable sources</th> </tr> </thead> <tbody> <tr> <td> <p>It may contain accurate information, as well as opinions and falsehoods. Extreme caution should be exercised when using it.</p> <p><b>Examples:</b> Social media sites (Facebook).Blogs - Wikipedia.</p> </td> <td> <p>Articles or information written by experts and verified for accuracy. Presented professionally and without grammatical errors.</p> <p><b>Examples:</b> Egyptian Knowledge Bank. Official government websites - Digital school books.</p> </td> </tr> </tbody> </table> <p><b>Tips During Research:</b> Focus solely on the topic. Always question the reliability of information. Take detailed notes and cite sources in the report.</p> <p><b>Organizing and Writing the Report:</b> After gathering notes from reliable sources, write the report logically and systematically.</p> <p><b>Using a research outline to: - Organize notes before writing - Help present information logically.</b></p> <p><b>The basic parts of the outline: Introduction, Supporting paragraphs, Conclusion.</b></p>	Unreliable sources	Reliable sources	<p>It may contain accurate information, as well as opinions and falsehoods. Extreme caution should be exercised when using it.</p> <p><b>Examples:</b> Social media sites (Facebook).Blogs - Wikipedia.</p>	<p>Articles or information written by experts and verified for accuracy. Presented professionally and without grammatical errors.</p> <p><b>Examples:</b> Egyptian Knowledge Bank. Official government websites - Digital school books.</p>	<p>Imagine you are going to research the topic of "the importance of environmental protection"... Write the necessary outline for your report using Microsoft Word.</p>	<p>Create a mind map for planning a digital research project.</p>	<p>✓ or ✗ : You can consult your parents or teacher about reliable sources</p>
Unreliable sources	Reliable sources										
<p>It may contain accurate information, as well as opinions and falsehoods. Extreme caution should be exercised when using it.</p> <p><b>Examples:</b> Social media sites (Facebook).Blogs - Wikipedia.</p>	<p>Articles or information written by experts and verified for accuracy. Presented professionally and without grammatical errors.</p> <p><b>Examples:</b> Egyptian Knowledge Bank. Official government websites - Digital school books.</p>										
Weekly Assessment	✓ or ✗ : You should start your digital research by planning the topic and focusing. ( )			Teacher's Signature							

Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Three	review	reviewing the monthly exam recording

**Introduction /** What information did you study this semester that you felt changed your perspective on something in your life?

**Lesson Objectives /** -To accurately recall the key concepts and information studied in the unit.  
 -To gain confidence in their academic abilities and reduce anxiety about the subject matter.  
 - To identify their strengths and weaknesses in the course content to focus on before the exam. Sources.

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: Review Previous Material. Values of the Self: like exploration; integrity and transparency. Globalization Issues: Participation in digital research.	Interactive board – Textbook – Introductory Video		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning				(monthly test)	answer the exam questions	Research one of the topics related to the unit
Weekly Assessment	Solving the exam questions			Teacher's Signature					

4



# Unit 4



*Second term*

Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	one	digital problem Solving.

## Introduction / What are the steps for problem-solving?

**Lesson Objectives** /- develops a scientific hypothesis about how a particular technical problem occurs, and tests this hypothesis.

- explains the importance of seeking help from a teacher or others to assist in solving technical problems

-To apply the methodology of breaking down a large problem in the field of information and communication technology into smaller parts to facilitate its solution.

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 Live with Others: Respect for Others when working. Learn to Be: Accountability. Values of Coexistence: Respect, Tolerance, and Acceptance of	Interactive board– Textbook – Introductory Video		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning	<b>Steps to solve problems:</b> <table border="1"> <tr> <td><b>1. construct a Hypothesis:</b> Make a scientific guess (a preliminary explanation) about how the problem occurred.</td> <td><b>2 – Hypothesis Testing</b> Do not risk experimenting with anything that could compromise your devices.</td> <td><b>3 – Learning from Mistakes:</b> If your test fails, think: What went wrong? What did I learn? We must learn from our mistakes and build a new, more accurate hypothesis.</td> </tr> </table>	<b>1. construct a Hypothesis:</b> Make a scientific guess (a preliminary explanation) about how the problem occurred.	<b>2 – Hypothesis Testing</b> Do not risk experimenting with anything that could compromise your devices.	<b>3 – Learning from Mistakes:</b> If your test fails, think: What went wrong? What did I learn? We must learn from our mistakes and build a new, more accurate hypothesis.			Identify a problem you might encounter while using your device and how to solve it by applying a problem-segmenting methodology and writing a hypothesis.	The student write two steps to solve a problem	<input checked="" type="checkbox"/> or ✗ : If the technical problem is too complex, never hesitate to ask your teacher for help.....
<b>1. construct a Hypothesis:</b> Make a scientific guess (a preliminary explanation) about how the problem occurred.	<b>2 – Hypothesis Testing</b> Do not risk experimenting with anything that could compromise your devices.	<b>3 – Learning from Mistakes:</b> If your test fails, think: What went wrong? What did I learn? We must learn from our mistakes and build a new, more accurate hypothesis.										
Weekly Assessment	Solving the exam questions			Teacher's Signature								

### Breaking down problems into smaller parts:

A complicate problem should be broken down into smaller parts, and each part should be solved gradually. This is used when solving complex technical problems:-

Internet connection problem. – An application is not opening.

- If you have a group of people helping you solve a large problem; assign each person a separate, small part.
- If the technical problem is very complex, never hesitate to ask your teacher for help.
- When breaking down a large technological problem, start by solving the parts you can do on your own, step by step.

### real -life Example :

When organizing a class trip, breaking it down into smaller tasks makes the task much easier, such as:

- Decide the destination.
- Determine the trip date.

Asking the find out the price per student.












Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	Two	Providing information.

**Introduction / Have you ever wondered how to create a poster?**

**Lesson Objectives / - To identify** the digital tools that can be used to design a poster or billboard, such as Publisher or PowerPoint.

**-Describes** three digital concepts to consider when designing (such as margins, font type and size, colors, or images).

**- writes** an attractive electronic poster, taking into account the choice of an appropriate font.

Skills, values and issues covered in the lesson	Teaching Aids	Assistive technology for integration students if available	Teaching strategies	<b>Subject</b>				Educational activities	Formative assessment	Evaluation														
Learn to understand: Decision-making – Participation. Self-values: The power of exploration. Globalization issues: Technological awareness.	Interactive board– Textbook – Introductory Video		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning	<p><b>Digital tools for presenting information:</b> Microsoft 365 software suite offers excellent options for designing posters and billboards.</p> <table border="1"> <thead> <tr> <th>Desktop publishing software (Publisher)</th> <th>Word processing software;</th> <th>Presentation software;</th> </tr> </thead> <tbody> <tr> <td>It's a professional program for designing posters and flyers in an organized manner. </td> <td>It can be used for writing text and designing simple posters. </td> <td>It's used for creating quick and easy presentation slides. </td> </tr> </tbody> </table> <p><b>Note:</b> Accessing these programs requires you to have Microsoft 365 installed on your digital device and ensure your device is up to date in order to download them.</p> <p><b>Digital concepts to consider during design:</b></p> <table border="1"> <thead> <tr> <th>1. Margins</th> <th>2. Font Type and Size</th> <th>3 – Colors</th> <th>4 – Images</th> </tr> </thead> <tbody> <tr> <td>The empty space around the edges of the poster or billboard. Clear, keep a fixed of margin (e.g., 2.5 cm) don't crowd the edges; if the edges are too full, the poster will look cramped and unattractive.</td> <td>Everyone should be able to read the information easily. Avoid complex fonts that are distracting and difficult to read. Simplicity is the best option.</td> <td>They help convey the message and attract attention. It is preferable to use fewer than three colors in the poster. The background color should be taken into account when choosing the font color.</td> <td>These are the images used to complement the content. High-quality images relevant to the subject matter should be used.</td> </tr> </tbody> </table>				Desktop publishing software (Publisher)	Word processing software;	Presentation software;	It's a professional program for designing posters and flyers in an organized manner. 	It can be used for writing text and designing simple posters. 	It's used for creating quick and easy presentation slides. 	1. Margins	2. Font Type and Size	3 – Colors	4 – Images	The empty space around the edges of the poster or billboard. Clear, keep a fixed of margin (e.g., 2.5 cm) don't crowd the edges; if the edges are too full, the poster will look cramped and unattractive.	Everyone should be able to read the information easily. Avoid complex fonts that are distracting and difficult to read. Simplicity is the best option.	They help convey the message and attract attention. It is preferable to use fewer than three colors in the poster. The background color should be taken into account when choosing the font color.	These are the images used to complement the content. High-quality images relevant to the subject matter should be used.	Design an electronic poster on one of the following topics: <b>The Grand Egyptian Museum - The Importance of Resource Conservation</b>	Environmental Protection (taking into account margins and empty spaces).	Create the poster with the help of your teacher. Complete: The maximum number of colors in the poster is .....
Desktop publishing software (Publisher)	Word processing software;	Presentation software;																						
It's a professional program for designing posters and flyers in an organized manner. 	It can be used for writing text and designing simple posters. 	It's used for creating quick and easy presentation slides. 																						
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Weekly Assessment	Complete: Cybersecurity includes .....				Teacher's Signature																			

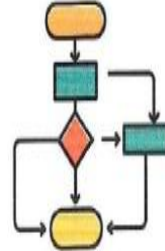
Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	Three	Algorithms

**Introduction /** Have you ever thought about how to solve a problem in an organized way?

**Lesson Objectives /** -To explain the concept of an algorithm.

-To identify the importance of choosing the right keywords when searching digitally.

-To write a simple algorithm.

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 understand: Problem solving Self Values: If-esteem: Appreciating mathematics. Globalization Issues: Technological Awareness help in solving problems	Interactive board– Textbook – Introductory Video		Brainstorming □ Dialogue and Discussion □ Cooperative Learning	<p><b>An algorithm is a finite set of clear, sequential, and organized instructions used to:</b></p> <ul style="list-style-type: none"> <li>- Solve a specific problem.</li> <li>- Accomplish a specific task.</li> </ul> <p><b>Features of a good algorithm :-</b></p> <table border="1"> <tr> <td><b>Definiteness</b></td> <td>Each step must be clear and unambiguous.</td> </tr> <tr> <td><b>Input</b></td> <td>It must accept zero or more inputs</td> </tr> <tr> <td><b>Output</b></td> <td>It must produce at least one output that represents the solution</td> </tr> <tr> <td><b>Finiteness</b></td> <td>The algorithm must terminate after a limited number of steps.</td> </tr> <tr> <td><b>Effectiveness</b></td> <td>Each step must be practically feasible</td> </tr> </table> <p><b>Note:</b> that computers and their applications use algorithms to perform specific tasks, such as search engines.</p> <p><b>1- Algorithms and Search Engines :-</b></p> <p><b>A:</b> You type the keywords you are searching for into the search engine.</p> <p><b>B-</b>The engine uses intelligent algorithms to give you the most relevant results for your search topic.</p> <p><b>Smart algorithm:</b> If you use a search engine to find directions to a location, the engine will use a database of names and information from digital maps to provide you with the results</p> <p><b>2-Search Accuracy:</b></p> <p>It is important to choose the accurate words when trying to gather information. If your wording is not precise, the engine's algorithm may not be entirely accurate in delivering the results.</p>	<b>Definiteness</b>	Each step must be clear and unambiguous.	<b>Input</b>	It must accept zero or more inputs	<b>Output</b>	It must produce at least one output that represents the solution	<b>Finiteness</b>	The algorithm must terminate after a limited number of steps.	<b>Effectiveness</b>	Each step must be practically feasible		Write the steps of an algorithm to add three numbers.	plain a flowchart using algorithms.	complete: One of the properties of algorithms is
<b>Definiteness</b>	Each step must be clear and unambiguous.																	
<b>Input</b>	It must accept zero or more inputs																	
<b>Output</b>	It must produce at least one output that represents the solution																	
<b>Finiteness</b>	The algorithm must terminate after a limited number of steps.																	
<b>Effectiveness</b>	Each step must be practically feasible																	
Weekly Assessment	Complete: the algorithm is .....			Teacher's Signature														

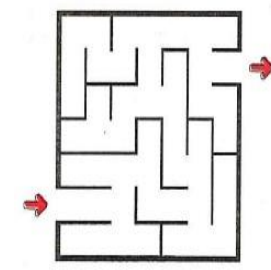
Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	four	Programming is the language of computers and game development.

**Introduction / Can you imagine being able to speak computer language?**

**Lesson Objectives /-** To explain the concept of programming (Coding).

- To discuss the importance of programming in creating video games, animations, and movies.
- Apply the Logical thinking to create programming instructions (steps) to solve a maze or a simple task.




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: creativity Scientific Values: Efficiency Globalization Issues: Technological Awareness	Interactive board – Textbook – Introductory Video		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning	<p><b>Programming (coding) :</b> Is computer language like writing a very large recipe? It involves writing multiple algorithms to create a complete program.</p> <p><b>Algorithms:</b> These are the instructions and steps that tell the computer exactly what to do, such as: - Steps to solve a math problem. - How to prepare a falafel sandwich.</p> <p><b>Programming in the world of technology:-</b></p> <table border="1"> <thead> <tr> <th>Smart devices:</th> <th>Creativity:</th> <th>Entertainment</th> </tr> </thead> <tbody> <tr> <td>Computers and applications use algorithms (the basis of programming) to perform specific tasks.</td> <td>Animations, films, and video games can be created using programming code.</td> <td>Animation, movies, and online video games are examples of products that were created and designed using programming.</td> </tr> </tbody> </table> <p><b>Computational Thinking and Problem Solving:</b> (Maze Solving)</p> <p><b>Note:</b> Programming requires you to think of a sequence of steps that allows the computer to navigate a maze.</p> <p><b>Example :</b> When solving a maze, the programming instructions might be something like :- 1- "Move two steps up."      2. "Turn one step to the left," and so on.</p> <p><b>Note that:</b> There are many websites that can help you learn programming, such as ode.org.</p>	Smart devices:	Creativity:	Entertainment	Computers and applications use algorithms (the basis of programming) to perform specific tasks.	Animations, films, and video games can be created using programming code.	Animation, movies, and online video games are examples of products that were created and designed using programming.	<p>Explore Code.org to learn programming.</p>	<p>Write a simple code snippet</p>	<p>Programming depends on writing .....</p>
Smart devices:	Creativity:	Entertainment											
Computers and applications use algorithms (the basis of programming) to perform specific tasks.	Animations, films, and video games can be created using programming code.	Animation, movies, and online video games are examples of products that were created and designed using programming.											
Weekly Assessment	Complete: programming is .....				Teacher's Signature								



Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	five	Exploring the Scratch program .

**Introduction /** Are you ready to be a programmer? Imagine you are an orchestra conductor, and the instruments are your characters on the screen. You decide when they move, when they speak, and when they sing

**Lesson Objectives /-**To learn about some programs and applications that rely on programming  
**-To explain** the Scratch programming interface. **-To practice** some simple steps in the Scratch programming language.

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><b>Learning to Know:</b> Reviewing Goals.</p> <p><b>Self-Values:</b> Perseverance.</p> <p><b>Globalization Issues:</b> Increasing Technological Awareness</p>	<p><b>Interactive board–</b> <b>Textbook –</b> <b>Introductory Video</b></p>		<p><input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning</p>	<p><b>Applications that use block-based coding, especially for teaching programming to children:</b>  <b>Scratch:</b>-It's a programming language specifically designed for your age.  <b>Its purpose:</b> To easily transform ideas into interactive stories and games.  <b>Tynker :-</b>Tynker is an educational platform designed for teaching the fundamentals of programming to young learners. It offers a wide range of projects and uses a block-based programming interface similar to Scratch.  It supports programming languages such as JavaScript and Python.  <b>Blockly3:-</b>Blockly3 is an open-source visual programming language similar to Scratch in its block-based (drag-and-drop) interface.  Users assemble blocks of code to solve puzzles. It can be integrated with other programming languages, such as Python and JavaScript.  <b>Explaining Scratch:</b> -The Scratch program is based on a block system instead of writing complex symbols and words, and it works in the following steps:  <b>1-Blocks:</b> These are the commands, and each colored block represents a ready-made command (such as: "Move," "Say," "Play Sound").  <b>2- Assembly:</b> A. You drag and drop these blocks and connect them together, just like staking colored building blocks to form a complete structure.  <b>3- a script: is</b> A group of blocks connected together which gives instructions to the object (Sprite :- which is the object on the screen).  <b>How to run the scratch:</b> 1- Via the internet 2- Downloading the program  <b>Sections of the main Scratch screen :</b>  <b>the stage :</b> The display screen, the place where your final project appears. Objects move and interact here  <b>Blocks Area :</b> The library containing all the colored commands for movement, appearance, sound, etc.  <b>script Area :</b> Workspace: Here you drag and drop blocks together to create commands  <b>The Sprite :</b> The virtual object (Sprite)The first character you see in Scratch is the cat, and it is ready to receive your commands (the default character you see in scratch is the cat sprit - it is ready to follow commands)  <b>the Objective:</b> To make the cat move 100 steps when we press the start button.  <b>1 - Start:</b> From the Events section (yellow): Drag the "When we click" block.  <b>2 - Command:</b> From the Motion section (blue):  Drag the "Move 100 steps" block and place it below the start block.  <b>3 - Start:</b> Press the button and watch the cat move.</p>	  	<p><b>Add commands (such as speaking and adding sound) using block programming in Scratch. Make the cat move 100</b></p>	<p><b>Make the cat move 100 steps</b></p>	<p><b>Complete: Scratch screen sections.....</b></p>	
Weekly Assessment	Complete: programming is .....				Teacher's Signature				

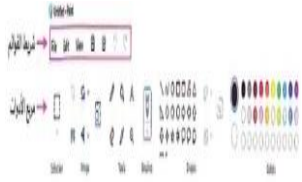
Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	Six	Graphic art: Creating and editing digital images.

## Introduction / What is Paint?

### Lesson Objectives /-To identify common tools and programs used in image and graphics editing, such as Paint.

-To use an office program (adding various graphic elements).

-To use Paint to perform basic image modifications such as cropping or adding text.

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					
Learning to Know: Reviewing Goals. Self-Values: Perseverance. Socialization Issues: Increasing Technological Awareness	Interactive board– Textbook – Introductory Video		Brainstorming Dialogue and Discussion Cooperative Learning	<p><b>Graphic Art :</b> It is the creation and modification of digital images and graphics using computer programs and relies on drawing and coloring tools.</p> <p><b>Graphic Art Tools:</b> <b>Microsoft Paint:</b> One of the popular programs for creating graphics and editing images.</p> <p><b>Steps to open the program:</b> 1- Click Start.                      2- Click Accessories.                      3- Click Paint.</p> <p><b>Components of the Paint program:</b> Toolbox    Menu bar    icons as ( adding text – fill color - copy -past )</p> <p><b>Word Processor:</b> Provides graphic tools for designing elements accessible from the Insert tab in the menu bar, such as: Diagrams,                      Shapes,                      3D Models,                      Icons</p> <p><b>Important Image Edits in the Paint Program:</b></p> <table border="1"> <thead> <tr> <th>Changing Colors and Size</th> <th>To add text to an image:</th> <th>Cropping</th> </tr> </thead> <tbody> <tr> <td>Using the options provided for this task, select a color and then press the fill button</td> <td>1. Click on the bottom right corner of the image, then drag the mouse cursor to the right to create a white space. 2. Click the Text icon, then type your text.</td> <td>The process of selecting specific parts of the image that you want to use, then cutting out the remaining parts.</td> </tr> </tbody> </table> <p><b>Note:</b> There are tools in the Paint toolbar to change the image size and orientation. To open Paint in modern versions of Windows, open the Start menu and type Paint. The program name and icon will then appear.</p>	Changing Colors and Size	To add text to an image:	Cropping	Using the options provided for this task, select a color and then press the fill button	1. Click on the bottom right corner of the image, then drag the mouse cursor to the right to create a white space. 2. Click the Text icon, then type your text.	The process of selecting specific parts of the image that you want to use, then cutting out the remaining parts.		Using Microsoft Word or any other word processing program, write a short essay about: "The Importance of Cropping in Image Editing"	" Explain how cropping helps make the final image more beautiful and focused on the subject.	Complete: Scratch screen sections.....
Changing Colors and Size	To add text to an image:	Cropping												
Using the options provided for this task, select a color and then press the fill button	1. Click on the bottom right corner of the image, then drag the mouse cursor to the right to create a white space. 2. Click the Text icon, then type your text.	The process of selecting specific parts of the image that you want to use, then cutting out the remaining parts.												
Weekly Assessment	Complete: Program: .....helps the student create drawings			Teacher's Signature										

Grade	Class	Date	Period	Unit	Lesson	Lesson Title
Four				Four	Review	Register the monthly exam.

**Introduction /** What information did you study this semester that you felt changed your perspective on something in your life?

**Lesson Objectives /** -To accurately recall the key concepts and information studied in the unit.

-To gain confidence in their academic abilities and reduce anxiety about the subject matter.

-To identify their strengths and weaknesses in the course content to focus on before the exam.

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			
<b>Learn to Know:</b> Review Previous Material. <b>Values of the Self:</b> like exploration; integrity and transparency. <b>Globalization Issues:</b> Participation in digital research.	<b>Interactive board– Textbook – Introductory Video</b>		<input type="checkbox"/> Brainstorming <input type="checkbox"/> Dialogue and Discussion <input type="checkbox"/> Cooperative Learning				(monthly test)	answer the exam questions	Research one of the topics related to the unit			
<b>Weekly Assessment</b>							<b>Solutions to the exam questions</b>			<b>Teacher's Signature</b>		

تطبيق



مذكرات جاهزة للطباعة

لتحميل الملفات التعليمية مجاناً للمعلم والطالب

مذكرات وملازم / مراجعات وملخصات / امتحانات / كتب الوزارة /  
أدلة المعلم / دفاتر التحضير / سجلات مدرسية / أوراق تأسيس

امسح الكود بموبايلك علشان تقدر تثبت التطبيق

وتقدر ف أي وقت تحمّل ال نفسك فيه ببلاش

هيغنيك عن البحث والجروبات والقنوات الكثيرة

