

ICT

Grade 5

Second term 2023/2024



Theme 3

Lesson 1

Explorer in Action

Peg Keiner: Ambassador for the Global Goals of the United Nations and a National Geographic Explorer. She lives in the United States and works as a Director of Innovation at a school in Chicago.

Personal Protective Equipment(PPE): Tools that are used such as protective masks and gloves used for one time only.

Debris tracker: It is an application that enables the recording of litter locations via the Global Positioning System, with a description of the type of this litter. It can be downloaded for free on a mobile phone.

Hashtag: The word hashtag means any word or phrase preceded by a symbol # to distinguish the text following it, and it helps in spreading information among the largest number of users, and a way to organize searches on Twitter, Facebook, or other different social media. as example #trackingppe

Go Green Initiative: It is an initiative launched by the Egyptian Ministry of Environment to encourage a more responsible approach to plastic waste and other types of waste. Spreading environmental awareness in society.

Lesson 2

Digital citizenship and social responsibility

The rights and responsibilities you should have as a digital citizen.

Rights	Responsibilities
Privacy.	Respect the privacy of others.
Protection against piracy.	Respect for diverse sources.
The ability to interact with others online.	Show positive behavior in dealing with others.
Sharing and obtaining information online.	Ensure safe online sharing.
The ability to use the Internet when you need to.	



How to express opinions in light of social responsibility:

- Express your opinions in a positive way.
- Make sure your sources of information are accurate and easy to understand.
- Make sure the information you share and its purpose are clear.
- Ensure that you have the rights and responsibilities as an interactive digital citizen when communicating online.

Corporate Social Responsibility:

Organizations use the Internet in turn to help others by Addressing environmental issues or providing support for important issues. This is known as corporate social responsibility.

Lesson 3

Online communication

Tone of online communication :

- o Use titles and avoid humorous style. for adults.
- o Be sure to introduce yourself if you have not met the person before.
- o Be clear about the subject of your message and the reason for sending it in the introduction.
- o Make sure to use the full name in communication without abbreviations.
- o Nicknames are only appropriate between close friends.
- o Pay attention to your feelings and expressions during video chats

Positive Online Communication :

- o Use positive words.
- o Be conversational.
- o Use emojis.
- o Use positive phrases at the beginning and end.
- o assume the best.



Lesson 4

Information websites

Information sites:

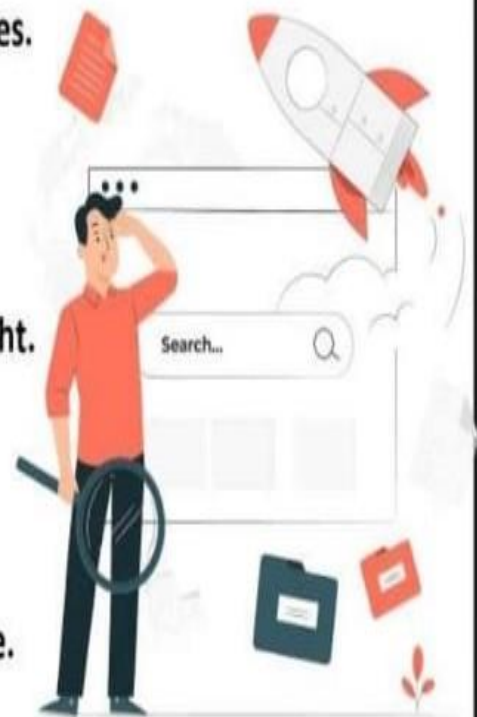
sites of The Alexandria Digital Library, and the Egyptian Knowledge Bank are two examples of reliable electronic library sites on the Internet. The Egyptian Knowledge Bank provides, for example.

- o The world's largest collection of online educational resources.
- o The ability to download files to your own devices.
- o Content suitable for all ages.
- o Safe and accurate sources.
- o Free use for all Egyptian citizens. Sources subject to copyright.

helpful website features:

- o The presence of search engines within the site.
- o menus to find information.
- o Icons in the form of images to access the sections of the site.
- o It is easy to find pages (contact us - about the site) in it.

Website Creation: Programs such as (WORD PRESS) are used to create websites that provide a lot of free tools, and be sure when creating the site to take into account images, videos, font size and type so that the site is attractive.



Lesson 5

Commercial and non-commercial internet services

Websites are divided according to their purpose into two types:

First, commercial sites:

their purpose is to sell products or provide services. Amazon site is an example of this. These sites often include a section dedicated to customer comments and opinions (**reviews**) that are useful for both the company and customers, as they help customers decide whether to buy a specific product or not.

Secondly, non-commercial sites:

their purpose is to provide information or raise awareness about an issue. The Egyptian Knowledge Bank is an example of non-commercial sites.

reviews: It is one of the ways in which you can obtain information about a product, and you should not trust a comment or evaluation (reviews) that overly positive or negative. as it is usually fake.

advertisements: Websites can obtain information about the sites you visit, to place ads that match your interests, geographical location, age, and gender.

Lesson 6

Using ICT for content creation

Microsoft Edge: Microsoft Edge is the web browser that comes with Microsoft Windows. The browser can help you browse, search, stream and more.

The Collections feature:

Collections in Microsoft Edge help you keep track of your thoughts on the web, whether you're shopping, planning a trip, collecting notes for research or lesson plans, or just want to pick up where you left off the last time you surfed the Internet. Sign in to them, so if you're using Microsoft Edge on multiple devices, your collections will always be up to date on all of them.

Writing help (Microsoft editor):

Use Microsoft Editor to check for spelling and grammar. The editor will highlight problems such as capitalization errors, sentence fragments and missing or incorrect words and punctuation and make a suggestion to correct each error. You decide whether to accept or ignore each suggestion.

Lesson 7

How to choose online sources

Online libraries:

these libraries help you to search for different media and are great for searching for information that is not protected by copyright. While ensuring the credibility of the information, while sites such as the Library of Alexandria and the Knowledge Bank are considered reliable sources.

Online maps:

These can provide clear and accurate directions to the required places such as Google Maps

Online museums:

These can also be wonderful reference sites that allow you to view museums digitally, and they generally include information about each museum.

Specialized search engines:

very useful for searching for information, such as (bing - google)

A WEBSITE'S META INFORMATION:

Websites include meta information, such as keywords, information about the site, and what it contains. that search engines use to distinguish these sites and ensure their reliability

Lesson 8

Choosing between synchronous and asynchronous communication

Synchronous communication:

is real-time communication between people, with everyone interacting and taking in information at the same time using digital tools such as video chats, live television shows, and instant chat rooms.

Asynchronous communication:

is communication that does not occur in real time and does not require an instant response. Asynchronous communication tools include email, voice and text messages and recorded videos.

Whatever the type of communication, you should always consider being :

- Polite
- Patient
- Helpful
- clear



Theme 4

Lesson 1

Explorer in action

Diego Ponce:

holds a PhD from the Energy and Resources Group, University of California Berkeley. He develops the use of technology to build renewable energy-related data infrastructure and systems. To collect data and improve the energy system.

Thermostat: a switch that measures temperature in air conditioners and refrigerators.

Sensors:

devices which communicate information back to a computer to monitor the amount of energy consumed by the appliances such as refrigerators and air conditioners, and through this, energy is distributed and provided in a better way.

The Egyptian Water Data Management System:

This system relies on monitoring and remote sensing data that help engineers make decisions and develop irrigation systems in order to expand the agricultural area.

Lesson 2

How digital devices work?

INSTALLING SOFTWARE: Most of the software, including versions of Microsoft Office and Chrome browser, can be downloaded from the Internet. Now **How to install the software**

windows pc : Find the program online. Click the download button. Click on the file, located in Downloads. A box will pop up. Follow the instructions to finish the installation process.

Android devices: Tap on the Apps icon. Go to the App store (Google Play stores). Find the app you're looking for and click install.

UPDATING SOFTWARE: Software programs often need to be updated. Updates help programs to run more efficiently. Many programs install necessary updates automatically

- **Install updates on Windows.** - **Install updates on Android.**

Troubleshoot screen freezes: If this happens, Press and hold the "Ctrl," "Alt," and "Del" buttons and use the Task manager to shut down any program that is marked as "not responding." If that doesn't work, turn your device off by pressing and holding down the power button for several seconds. Then wait a few more seconds before restarting your device.

Android : Hold down the power button for 30 seconds and restart.

Binary number system: Numbers can be considered a language understood by computers, and the binary system uses two values (0, 1) to express numbers in it through a binary electrical signal (1 means on - 0 means off).

Lesson 3

An introduction to binary numbers

Binary number system:

It is a numerical system with a base number (2), used to represent numerical values using two symbols, usually (0,1). Any two symbols or two states such as true/false or on/off can also be used. The binary number system is used in practically all modern computers

Decimal system:

It is a numbering system that has a base number of 10. It is one of the most widely used numbering systems, and the decimal system is called that because it uses the number (10) as its basis. Or because he has ten shapes (numbers) with which he represents numbers, no matter how big they are. Each position represents a value ten times greater than the one before it.

We use this system to the point of not thinking about the steps needed to arrive at a number like (157).

The number to the far right is multiplied by (1), the number in the middle is multiplied by (10), and the number to the far left is multiplied by (100)

Lesson 4

Determining the needs for a digital project

Elements of project planning:

- Knowing the final product (presentation - movie - poster - web page).
- Determining and limiting the needs for the project.
- Provide the tools used to prepare each part of the project.
- Assigning roles . Who will carry out each part?

Word processor program (Microsoft word).

Paint program (Microsoft paint).

E-mail .

Assigning roles:

It is important for the group members to understand their roles before starting the project. This is done by discussing with them the strengths and weaknesses of each one and how to coordinate between them. After the discussion to determine and assigning roles, be sure to discuss any questions that the group members may ask.



Lesson 5

Gathering data and presenting information

Some useful tools in the spreadsheet program (Excel)

Add up numbers:

Select the cells you want to add together. Then click: Home Tab- AutoSum- Enter

Add titles or labels (e.g., for an axis) to a graph/chart:

Toolbar -Chart Design- Add Chart Element

Choose the color of a graph/chart: Toolbar -Chart Design -Format

Choose the type of a graph/chart: Toolbar -Chart Design -Change chart type

Choose the layout of a graph/chart: Toolbar Chart Design Quick Layout

Digital information-handling skills

- Research.
- Data collection .
- Classification.
- Processing.



Lesson 6

Presenting information in an appealing way

You can use text to display important information in an attractive way and highlight information by:

Word processor program (WORD):

- Use one or more colors. - Use bold font.
- Insert (WORDART) to increase the effect of the text.

Presentation software (PowerPoint):

- Use graphics, shapes or pictures.
- Graphs and charts.
- Add audio or video content



MOVIE MAKER: can be used to create a movie from a collection of still images, and intellectual property rights must be observed when using image files, video clips, and audio files.

Lesson 7

Producing an effective presentation

Storyboard :

is a chart that shows a sequence of content that forms a plan or outline of your presentation. That can be valuable to help producing an effective presentation. Storyboards allow you to plan your ideas and pre-visualize the results of a presentation.

The 10-20-30 rule :

A PowerPoint Presentation shouldn't present too much information or take up too much time that will overwhelm the audience. Font size should be easy to read.

10: up to ten slides only

20: no longer than 20 minutes

30: font no smaller than 30-point size

Tab (Design):

It can be used as it offers alternative options to the regular black and white design.

Lesson 8

Web design principles

HTML (Hypertext Markup Language): is the language that will be displayed on a web browser

Creating a web page :

While you can create your story directly through a website-building program, you can also use Microsoft Word to create your web page. When your document is ready, choose 'Web layout' in the 'View' tab. You can also save a file as a web page by choosing "file" then "save as" then "web page".

Effective elements and components of the web page:

- The heading , sub-heading.
- The main text (content).
- Visuals that reflect the main message or information about the story.
- Audio / video.
- Size, type and colors of fonts for each paragraph and title.

