**SECOND TERM 2024/2025 SESSION**

**COMPUTER NOTE FOR JS 2**

**SCHEME OF WORK**

Lesson One: Graphics Package

Lesson Two: Information and Communication Technology (ICT)

Lesson Three: Internet

**LESSON 1**

**GRAPHICS PACKAGES**

DEFINITION OF GRAPHIC PACKAGES:

Graphic packages are specially designed software that are used for graphics production of images, drawings, designs, pictures and other graphic related jobs.

Examples of graphics packages:

The common graphics packages are:

1. MS-Paint
2. CorelDRAW
3. Instant Artist
4. Harvard graphic
5. Logic graphic
6. Corel Dream
7. Logo Graphic

Others are Adobe InDesign, QuarkXpress, Adobe Illustrator, Macromedia, Freehand, Adobe Photoshop, Corel-Photo Paint, and JascPaint Shop Pro.

FEATURES OF GRAPHICS PACKAGE ENVIRONMENT

The main features of all graphics software include but are not restricted to the following:

1. The title bar: this is always the topmost part of the graphics environment. It contains the name of the program, the name of the file and the size of the bars
2. The tool Bar: the tool Bar is where all the tools needed for graphic jobs are kept. These tools include the select tool, text tool, fill tool, and outline tool.
3. The menu Bar: the menu bar contains the menu items which contain sub-menu that are commands used to carry out tasks. Examples of sub-menus include file, edit, view, images, colour, and help.
4. The Printable Area: This is the rectangular area whose content will be printed. Any object outside its content will not be printed
5. The colour palette: This tool is used to choose the colour needed to paint objects
6. The Status Bar: This Bar gives the position and status of the cursor or mouse pointer. It displays the page number, line number etc.

THE TOOLBOX

The toolbox is a rectangular box that contains all the tools used for drawing, formatting, editing etc. in painting. To use any of the tools, click on the tool button. This will activate the tools

STARTING MS-PAINT

To start the MS-Paint, follow the steps below

1. Click on the start button on the window task bar. The program manager appears.
2. Click the programs or ALL PROGRAMS (depending on the Windows Version).
3. Click on ACCESSORIES.
4. Click on PAINT. It loads MS-Paint program and opens the paint window on the screen.

TOOLS OF MS-PAINT

1. FREEFORMS SELECT: This is a snipping tool that is used to draw an irregular line such as a circle or a triangle around an object that you want to capture.
2. Select Tool: The ‘select’ tool is a snipping tool that is used to select one or more items on the screen to copy and save as bitmap image.
3. Eraser Tool: This tool is used to remove an unwanted part of graphics. When the eraser tool is active, the eraser size can be changed by selecting from the four sizes in the toolbox option area.
4. Paint Brush Tool: This tool is used to select different sizes of paint brushes to paint with. When active, it allows you to choose from sizes and shapes of brushes in the tool box option.
5. Airbrush tool: This applies colour to graphics gradually. When selected, three different sizes of spray can be selected from the toolbox. To fill an area with the airbrush, the airbrush has to be applied to an area for a period of time. The more you move the mouse over the area in question, the more colours applied.
6. Text tool: This tool is used to position and enter text into graphics. The text can be of any colour, or font installed on the computer.
7. Polygon tool: This tool is used for drawing polygons. When the thickness of the polygon lines can be selected from the toolbox option area.
8. Rectangle tool: This tool is used to draw rectangles. When active, you can select the thickness of the rectangle lines from the toolbox option area.
9. Ellipse tool: This tool is used for drawing objects. When active, the thickness of an ellipse line can be selected from the toolbox option area.
10. Rounded Rectangle: This tool is similar to the rectangle tool except that there are curves at the edge of the rectangle.
11. Set as Background: this command is used to set a background. The set background can be tiled, centered or stretched.
12. Recent file: this lists some of the last few files that were opened or created.
13. Exit: This sub-menu is used to choose the document and the program.
14. Straight line: This tool is used for creating straight lines. To use it, click Line, click a line width in the option box just below the toolbar.
15. Colour palette: this is also called colour box. It is used to indicate current foreground and background colour. To paint with the selected colour, drag the pointer. To paint with the selected background colour right click while you drag the pointer.
16. Curve line: This tool is used to draw a smooth curved line. To use it, click CURVE, click a line width in the option box just below the tool box
17. Eyedropper: It can be used to pick up colours that you have used. For example, to select a specific colour from an array of similar colours, click on the eyedropper, and click on the exact colours of the image that contains the colour you want. The active colour of your paint tool will automatically change to the colour picked by the eyedropper.

**THE PAINT MENU**

The file menu contains sub-menu that are commands used in working with the file. The sub-menus are new, Open, Save as, From Scanner or Camera, Print Preview, Page Set up, Print, Send, Set as Background (tiled, Centered, Stretched), Recent file, Exit. Using any of these sub-menus is similar to that of Excel and Word.

**NEW**

A click on this option gives a new blank page where the user carries out a task. The shortcut keyboard command is CTRL, + N

**Open**

This sub-menu gives a dialogue box where the user specifies the file to be opened and its location. The shortcut keyboard command is, + O

**Save**

This sub-menu when used for the first time does the same job as Save As. It is used to save a file

**Save As**

This command opens a dialogue box where the user types in the file name and saves the file in a specified location

**From scanner or camera**

This allows uploading of files from the scanner or digital camera.

**Print Preview**

This gives a view of the document and the way it will appear when printed.

**Page Setup**

This sub-menu allows page setting using the dialogue box options.

**Send**

This command is used to attach a document and send it to a mailing recipient.

View menu

The view menu allows the user to ‘toggle’ (turn on or turn off) the toolbox, ‘colour box’ and status box, from the paint window.

**Zoom**: it allows the user to set the zoom with the zoom tool.

**Bitmap:** it displays the full size image of the graphic without the paint window objects.

**The image Menu**

 The image menu contains a number of options that allow you to make changes to the graphics.

**Flip/Rotate**:

The allows the user to flip the graphics either horizontally or vertically. It can therefore produce a mirror image of the graphics.

**Stretch/skew**:

This allows the user to make the graphics or part of it narrower, wider, shorter or taller.

**Invert colours**:

This gives the graphics an effect that is similar to a ‘film negative’

**Attributes**

It gives the basic image attributes of an image, such as height width, colours, and transparency.

**Clear Image**

This removes the image, leaving a blank file with the same image dimension.

**Draw Opaque**

This works with a selection. If unchecked, any background colour in the selection will be treated as transparent.

**LESSON TWO**

**INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)**

Meaning of ICT: ICT stands for Information and communication Technology. It is used to describe all devices that can be used to create, communicate, disseminate, store, manage and provide access to information. These devices include radio, television, mobile phones, computers, the internet, satellite systems etc.

**EXAMPLES OF ICT GADGETS**

ICT – Based Gadgets are electronic devices used for information and communications dissemination.

EXAMPLE:

1. Mobile phone
2. Computer system
3. Fax machine
4. Automated teller Machine (ATM)
5. Dispensing Machine
6. Point of sale (POS) Machine
7. Radio set
8. Television set

**MOBILE PHONE**: It is also called Cellular or Cellphone. It is a portable hand held device which is used to make phone calls, provide short messages service (SMS), Multimedia message service (MMS) and the internet service.

**COMPUTER SYSTEM**: This is an electronic device used to input, process, store, retrieve or output data at high speed.

**FAX MACHINE**: This is also called a facsimile machine. It is a device that is used to send and receive printed pages of text or images over a telephone line. It consists of a scanner that scans outgoing messages, a printer that prints incoming messages and a telephone line that makes the connection.

**Automated teller Machine (ATM**): This is also called Automated Bank Machine (ABM) or cash machine. It is an electronic banking machine or device which allows customers to make cash withdrawal, facilitate credit card payments, make cash transfers, produce report of account balance and even recharge their mobile phones without the aid of a bank staff or banking hall.

**Dispensing Machine**: It is also called Vending Machine. It is an electronic machine from which people can buy items such as water, drinks, sweets, fruits and any other items.

Point of sale (POS) Machine: this is used to carry out retail transactions such as calculating the total cost of goods purchased, printing of receipt, processing credit card payments etc. it makes transactions (buying and selling) fast, easy and secure.

**RADIO SET**: This is an electronic device that is used to receive information from broadcasting stations via radio waves by means of an antenna.

**TELEVISION SET**: This is an electronic device that is used to receive information from television signals (moving images and sound) via radio waves and displays them on a screen

**INTERNET**: This is a computer network that links computers together and allows almost all computers worldwide to connect and exchange information.

TELEX MACHINE: this is a device that is used to send messages from business to another on the telephone network or by satellite.

 **USES OF ICT**

Some of the uses of information and communication technology are:

1. Information gathering, processing and distribution: ICT is a major tool in information gathering, processing and distribution; for example, the use of computers to produce, edit and distribute news over the internet.
2. Information Management: ICT is used to handle and manage information. Information is better managed with ICT.
3. Information security: ICT has many features that help to protect and secure information.
4. Communication: Today, ICT provides effective use of Radio, TV, Video and other multimedia devices such as the computer mobile phone, and 3G for effective communication.
5. Timing and control: Operations are effectively timed by computers and other ICT media. These devices also offer effective control of resources, e.g. computer gadgets employed in traffic control.

**ADVANTAGES OF ICT**

1. Speed: with the introduction of ICT, processes, and transactions are carried out faster than before.
2. Flexible Interaction: ICT also supports many types of interaction. Examples are one on one conference, and one to many people conference.
3. Access to Information: There is better and cheaper access to knowledge and information. With ICT, many people can get information even in remote parts of the world.
4. Globalization: ICT has made distance become irrelevant in business transactions and dealings. For instance, one can stay in a room in Anambra State, Nigeria and carry out business in Tokyo, Japan.
5. Timeless: Information is sent and received in reasonable time with ICT. Example: Information sent can be received in any part of the world in a split of second by internet chatting, e-mail, teleconferencing etc.
6. Effective Human Interaction: ICT has created so many new methods of communication such as the use of the internet, pager, computer, and the mobile phone.
7. Media integration: with ICT, so many media types can work together. For example, the mobile phone can be connected to the computer. Also, information on the mobile phone can be transferred and viewed from a projector.
8. Innovation and creativity: ICT has created so many new methods of communication such as the use of the internet, pager, computer, and the mobile phone.

**DISADVANTAGES OF ICT**

1. IT CAN CAUSE ADDICTION DISORDER (AD): this is when people interact more with ICT gadgets than with real people.
2. The components are fragile: The ICT devices can easily break. They are fragile and need to be handled with extra care to prevent damage.
3. Job Loss: People can lose their jobs as a result of ICT. This could be because of lack of computer skills, or due to ICT gadgets taking over human jobs. For example, you don’t need a dispatch rider to send an e-mail.
4. It might require large resources: ICT sometimes requires expensive equipment to carry out, which can be unaffordable to an average user.
5. It requires extra cost train users: to use ICT facilities, you must be well trained. At times the training can take place in a foreign land and can be very expensive.
6. Destruction of human capital: Many old skills are no longer needed. As a result, such skills are lost.

**LINKS BETWEEN THE COMPUTER AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)**

The computer is part of ICT and plays a major role in facilitating ICT. As a result, there are relationships and links between computers and ICT.

These include the following:

1. All modern ICT gadgets are programmable just as computers are.
2. Experience shows that people who understand the technology of the computer and how it operates are better ICT users.
3. Most discoveries in IT and ICT were as a result of access to the computer.
4. Computers can serve the functions of other ICT gadgets. For example, the computer can exchange information with the telephone, it can play video, it can tune to television stations, connect to the satellite, and can also play audio data like the radio.
5. The computer through the internet and ICT has created ‘Sovereign people’, i.e. people who are empowered by their knowledge

**LESSON THREE**

**THE INTERNET**

Definition of Internet: The internet, also called the NET, can be defined as a global collection of computers connected to each other, sharing available resources and communicating effectively. This global network links thousands of computers in universities, government agencies, research institutions and business houses throughout the world.

**COMMON TERMINOLOGIES**

1. TCP: Transaction Control Protocol which helps the computer connected to the Internet to communicate with other computers.
2. WEBSITE: This is a collection of related web pages, images, codes or other digital assets that are hosted on one web server usually accessible through the internet.
3. WEB PAGE: This is a document typically written in HTML, that is almost always accessible through http.
4. WAP: Wireless Access Protocol.
5. WWW: World Wide Web, which is a medium that allows people to get information that is available on the internet. Examples are [www.yahoo.com](http://www.yahoo.com), [www.google.com](http://www.google.com), [www.ehjmc.edu.com](http://www.ehjmc.edu.com)
6. INTERNET PROTOCOL (IP): This is a protocol used for communicating data across a pocket-switch on the internet.

**INTERNET ENVIRONMENT**

In the internet environment, some of the icons that are mostly used are ‘Back’, ‘Forward’, ‘Stop’, ‘Refresh’, ‘Home’, ‘Favourites’ (Bookmarks) and ‘Search’.

USES OF THE INTERNET

Some uses of the internet include the following:

1. The internet is used to communicate with friends’ relations, family members, business partners, etc. in any part of the world.
2. It is used in searching for information on the net through search engines.
3. It is used in sending and receiving messages.
4. It can be used for electronic learning (e-learning) to acquire knowledge and computer based training programs.
5. It is used for chatting or electronic conversation with other people in different parts of the world.
6. It can be used in planning a trip.
7. It can be used for advertisement and marketing.
8. It is used to access education network groups.
9. It is used to gather information about countries, companies etc.

BENEFITS OF THE INTERNET

The internet provides many benefits, some of which are given below:

1. Search tools: The internet provides search tools called search engines for users to get information quickly and easily.
2. Online payment transaction: the introduction of Microsoft wallet enables users to send personal details securely through the internet. This guarantees the security of transactions.
3. Investment: the internet gives financial and investment information throughout the year.
4. Online shopping: it is also called e-shopping. The internet has made it possible for users to purchase and receive goods, sitting in their homes and using internet connected computers.
5. Online banking: this can be called e-banking transactions through the internet e.g. First Bank of Nigeria and United Bank for Africa e-banking facilities.
6. Education: there is a lot of information and knowledge to acquire through the internet. One can even study many courses abroad and acquire certificates through the internet (e-learning)
7. Software: Almost all the software companies have internet sites from which one can download the latest version of their software.
8. E-entertainment: the internet gives access to the latest movies, music, or theatre information. Games can be played on the internet. This is called e-entertainment.
9. Conferencing: the internet provides a virtual conference room where people of like minds share information.

**ABUSES OF THE INTERNET**

The internet is said to be abused when used for any of the following:

1. Fraud: Internet fraud is carried out by imposters or prowlers who use the internet for dishonest purposes or 419. They lie about themselves and business activities.
2. Piracy of software: This is when software from the internet is copied and used without the person of the owners.
3. Pornography: There are sites on the internet that show pictures of naked people, thereby abusing the minds of the under aged.
4. Hacking: This is when an authorized person illegally gains access to a computer system and tampers with the information on it.
5. Plagiarism: This happens when pirates of software on the internet present copied or already existing work as original and new.
6. Worms: some internet users intentionally send worms to attack networks and servers, making everything slow down, or stop working altogether. The worms spread by copying and multiplying.
7. Computer virus: This becomes an abuse of the internet when some internet users intentionally send viruses to other internet users. Such viruses can be very difficult and expensive to remove.

USING THE INTERNET

In order to get onto the internet and all its sites, a computer needs a special type of software called an internet browser. There are various browsers to choose from, such as Microsoft Internet Explorer, Netscape communicator, Mozilla Firefox, Safari, Netscape, Maxton, Slick, Eudaracom and Eudora Light. The two most common browsers are Internet Explorer by Microsoft and Netscape Communication. You can easily see which one you have on your computer by the icon (picture) at the top of your screen. Internet service is provided by ISPs (Internet Service Providers).

**THE ELECTRONIC MAIL (E-MAIL)**

E-mail is basically a file that is sent from one computer to another through a network. Some files are texts, scanned images, computer graphics and sound and video files, which can also be sent along with your e-mail messages.

ADVANTAGES OF E-MAIL

1. Messages can be transmitted in a few seconds.
2. It saves a lot of paper.
3. The chance of an e-mail getting misplaced is almost nil.
4. Messages can be sent at any time of the day at the sender’s convenience.
5. Copies of a single e-mail can be sent to multiple users.
6. Both incoming and outgoing messages can be saved for future reference.

CREATING AN E-MAIL ACCOUNT

Before you actually settle down to send an e-mail, you need to have an e-mail account which allows you to send and receive e-mail messages. Some sites where you can create an e-mail account are: [www.yahoo.com](http://www.yahoo.com), [www.indiatimes.com](http://www.indiatimes.com), [www.hotmail.com](http://www.hotmail.com), [www.mail.com](http://www.mail.com), [www.rediff.com](http://www.rediff.com)

**STEPS IN CREATING AN E-MAIL ACCOUNT**

The following steps are to be taken in creating an e-mail account

1. Open Internet Explorer
2. Log in into any internet e-mail service provider’s site or sites such as yahoomail.com or Hotmail.com
3. Click on sign up on the homepage.
4. After filling the form, click on ‘I agree’. Instantly, a new page appears which confirms your registration.
5. To open your e-mail account, type the site address you used e.g., [www.yahoo.com](http://www.yahoo.com) in the address bar of the Internet Explorer window and press the enter key. A page will appear.
6. Type your e-mail address and Password.
7. Click on sign in or press Enter.

**CREATING E-MAIL MESSAGES**

E-mail messages can be created on the yahoo site by:

1. Clicking on compose in the compose bar.
2. Typing your letter in the appropriate box with its title, or the subject.
3. Typing in the address of the receiver.
4. Clicking send in the bar above the compose bar.