

A computer

Is a machine that accepts inputs and gives out output.

Parts of a computer

- Keyboard
- Monitor
- Mouse
- System unit

FUNCTIONS OF THE PARTS OF A COMPUTER

Keyboard. used for typing text.

Monitor. Displays information from the computer.

Mouse. Used for clicking documents

System unit. Keeps the inside parts of a computer.

BASIC COMPONENTS OF A COMPUTER

Hardware parts .are parts of the computer that can be seen and touched

Examples of hardware parts of a computer includes the following

- Monitor
- keyboard
- System unit
- Mouse etc

PARTS OF THE MOUSE

- Right click
- Left click
- Scroll button

SPECIAL KEYS ON THE KEYBOARD

- Enter key
- Caps lock
- Backspace
- Spacebar

Functions of the special keys on the keyboard

Enter key. Takes you to a new line

Caps lock. Turns on/off capital letters

Backspace. Deletes mistakes left words.

Spacebar. Puts space within our work.

STEPS TAKEN TO SWITCH ON A COMPUTER

- Connect the cables into the socket
- Switch on the sockets
- Switch on the system unit
- Switch on the monitor to wait for the computer to start up

STEPS TAKEN TO SWITCH OFF A COMPUTER

- Click on the start button
- Select shut down
- Switch off the monitor
- Switch off the sockets

USES OF COMPUTERS

- They are used to play games
- They are used to play music
- Computers are used for online shopping
- Are used to watch videos
- They are used to type and print documents
- Computers are used to send emails
- Are used for collecting payments from customers

DIFFERENT TYPES OF COMPUTERS

Desktop computers. These are found at home, work, schools etc

Laptop computers. These are personal computers that are more portable

Tablet computers. These are hand held computers.

Smart phones.

COMPUTER LABORATORY

This is the place where computer lessons are conducted from

RULES OF A COMPUTER LABORATORY

- Do not enter the laboratory without permission
- Noise in the lab is not allowed
- Bags in the computer lab are not allowed
- Smoking in the lab is not allowed
- Food and drinks in the computer lab are not allowed
- Un necessary movements in the lab are not allowed
- Use of the computer lab is for academic activities only
- Always switch off the computers after use

PLACES WHERE COMPUTERS ARE USED

- Schools
- Hospitals
- TV stations
- Offices
- Radio stations
- Banks
- Industries
- Railway stations
- Shopping malls
- Petrol stations
- Airlines
- Internet café
- Hotels
- Security units

PEOPLE WHO USE COMPUTERS

- Teachers
- Accountants
- Bursars
- Parents
- Students
- Doctors and nurses
- Journalists cashiers managers

ADVANTAGES OF USING COMPUTERS

- They perform work quickly
- They save time
- For record keeping
- For online banking
- For paying bills
- For easy communication

DISADVANTAGES OF USING COMPUTERS

- Leads to unemployment
- Harm eyes
- Expensive to buy
- Needs educated people
- Loss of information through virus
- Stealing people's money through ATM

THE DESKTOP

Refers to the opening screen

BASIC ELEMENTS OF THE DESKTOP

- Recycle bin
- My documents
- Icon computer
- Time and date
- Taskbar
- Files
- Folder

IMPORTANCE OF SOME BASIC ELEMENTS OF THE DESKTOP

Recycle bin. This is where deleted documents are stored

Taskbar. Refers to the bottom of the screen

My documents. Default saving area

Files. Refers to the collection of text

Folders. Refers to the collection of files

FUNCTION KEYS ON THE KEYBOARD

- F1
- F2
- F3
- F4
- F5
- F6
- F7
- F8
- F9
- F10
- F11
- F12

NAVIGATION KEYS ON THE KEYBOARD

- Left arrow
- Right arrow
- Down arrow
- Up arrow

ELEMENTS OF THE MOUSE

- Pointing at the item
- Right click the item
- Double clicking the item
- Dragging
- Scrolling

TIPS FOR USING YOUR MOUSE SAFELY

- Ensure a clean surface
- Hold your mouse lightly
- Keep your fingers relaxed
- Avoid throwing your mouse down

REASONS WHY YOU STUDY COMPUTER AS A SUBJECT

- To get computer skills
- To know how to play music on computers
- To learn how to play videos on computers
- To learn how to conduct online education
- To know how to control cameras in banks using computers
- To know how to store important documents on computers
- To get jobs
- To know how to type using computers
- To know how to keep records using computers
- To know how to play games using computers

WAYS OF KEEPING COMPUTERS FREE FROM DUST

- By covering them after use
- Always clean the computer room
- Cover computers when you are sweeping the computer room
- Computer room should be cemented
- Provide ventilation nets to avoid dust
- Provide cartoons on windows to avoid dust from entering the computer room
- Computer room should be mopped regularly

DIFFERENCES BETWEEN LAPTOP COMPUTERS AND DESKTOP COMPUTERS

| DESKTOP COMPUTERS | LAPTOP COMPUTERS |
|-------------------------------|---|
| not movable | Movable |
| Have separate parts | All in one computer |
| Use much power | Use less power |
| Big in size | Small in size |
| No battery is used | Can work on a battery incase there is no power |
| faster | Not faster |
| Can be easily expanded | Not expanded |

FACTORS TO CONSIDER WHEN SETTING UP A COMPUTER LABORATORY

- Security of computers
- Stability of power source
- Amount of dust in the environment
- Install security cameras
- Provide first aid kits
- Provide fire extinguisher
- Provide dust control e.g. blowers

MICROSOFT WORD

This is program software used to type our work from

USES OF MICROSOFT WORD

- For creating text books
- For typing letters
- For creating business cards
- For typing home work
- For teaching students
- For making invitation cards
- For making birthday cards
- For making calendars using calendar templates

STEPS TAKEN TO OPEN MICROSOFT WORD

- Click start button
- Select all programs
- Select Microsoft office
- Finally select Microsoft office word

COMMON TERMS ASSOCIATED WITH MICROSOFT WORD

Editing text. Means making changes to the content of a document

Copy. This means making a duplicate copy in another place

Cut. Means removing text or document from its original place to another place

Hardcopy. A copy of document printed out on a physical paper

Softcopy. Copy of a document that is stored on a disk

Deleting. Means removing

Insert. It means putting or adding

Formatting. Refers to the changing the appearance of your work

Saving. Means storing a document

Save as. Means saving your work for the first time

Save. Means adding changes.

Printing a document. Means producing the typed work on a paper using a printer

STEPS TAKEN TO SAVE WORK IN MICROSOFT WORD

- Click on office button
- Select save as
- Type a file name
- Select a place where to save e.g. desktop
- Finally select save

CHARACTERISTICS OF COMPUTERS

- They are speedy
- Computers are automatic
- They are accurate
- Computers perform different tasks at the same time
- Should have work space for storage
- They need user input

CATEGORIES OF COMPUTERS

- Computer categories are basically three
- Digital computers
- Analogue computers
- Hybrid computers

Examples of analogue computers

- Thermometers
- Voltmeters
- Ammeters
- Speedo meters
- Barometers

Examples of digital computers

- Personal computers
- Laptops
- Digital watches

Examples of hybrid computers

- Digital petrol pumps
- In hospitals intensive care units

INPUT DEVICES AND OUTPUT DEVICES

INPUT DEVICES. Are used to enter data into the computer

Examples of input devices

- Keyboard
- Mouse
- Scanners
- Barcode readers
- Webcam

OUTPUT DEVICES

Are devices that convey information from computer to people

Examples of output devices

- Monitor
- Speakers
- Printers

STORAGE DEVICES

These are devices where information is stored or kept

Examples of external storage

- Hard disk
- Flash disk
- Memory cards
- Compact disk (CD)
- Digital versatile disc(DVD)

Examples of internal storages

RAM. Random Access Memory

ROM. Read Only Memory

COMMON COMPUTER CONCEPTS

ICT- Information Communication Technology

Information refers to the processed data with meaning

Communication refers to the sending and receiving of electronic messages from one point to another

Technology is the technique used to do something

PC- personal computer

CPU- central processing unit

OS -operating system

RAM- random access memory

ROM- read only memory

CD -compact disc

DVD -digital versatile disc

ATM -automotive teller machine

USB- universal serial bus

IT- information technology

WWW- World Wide Web

UNITS OF MEASURING COMPUTER STORAGE DEVICES

- Bit
- Byte
- Megabyte (MB)
- Giga byte (GB)
- Terabyte (TB)

PRINTERS

A printer is used to print data from a computer onto a physical paper

Examples of printers

- Inkjet printers
- Laser printers
- Mobile printers
- Plotters
- Line printers
- Dot matrix printers

COMPUTER VIRUSES

This is a malicious program designed to destroy computer's files

Examples of computer viruses

- Trojan horse
- Worms
- Macro viruses
- Directory viruses

WAYS OF PREVENTING COMPUTER VIRUSES

- Install anti-virus software
- Always scan flash disks before opening them
- Avoid sharing un trusted files
- Update your anti-virus software
- Avoid downloading un trusted files from the internet

NB anti virus is a program that scans the computer for viruses and deletes infected files

Examples of anti-virus software

- AVGA anti virus
- Avast anti virus
- Avira anti virus
- Kaspersky anti virus
- Norton anti virus
- Bit defender anti virus

ORIGIN OF COMPUTING

The origin of computing started with the early man who used fingers, stones, sticks etc to calculate and count

In 3000 BC the abacus was developed as the first machine by the Chinese for counting and calculations

ELECTRONIC ERA (PERIOD) OF COMPUTERS (1946-DATE) INCLUDING COMPUTER GENERATIONS

Computer generations are categorized into five generations as seen below;

- The first generation (1946-1958)
- The second generation (1958-1964)
- The third generation (1965-1970)
- The fourth generation (1971-date)
- The fifth generation (today- future)

In summary

The first generation computers used vacuum and were large in size

The second generation computers used transistors and were small in size as compared to first generation computers

The third generation computers used integrated circuits (IC). It was a combination of thousands of transistors and tiny wires to develop them. Extremely reduced in size

The fourth generation computers used micro processor; they combined thousands of transistors into a single chip. Hard disks, laptops came into place.

The fifth generation computers are made from Artificial Intelligence (AI) where by computers have human capabilities such as the five senses (to see, hear, feel, taste and smell) plus understanding and communicating

NB artificial Intelligence (AI) refers to the ability of machines to have human capabilities such as the five senses

WORLD OF ICT

ICT stands for information communication technology

ICT refers to the combination of computers and communication technologies to process data into information

Examples of ICT tools

- Radios
- Televisions
- Video DVD
- Digital cameras
- Scanners
- Computers

VARIOUS AREAS WHERE ICT CAN BE USED

- Homes
- Schools
- Hospitals
- Police stations
- Office
- Entertainment

USES OF ICT AT HOME

- For online shopping
- For playing videos, music and games
- ICT tools like computers can be used for printing out home documents like budgets
- For communication purposes
- ICT tools like computers can be used to pay bills
- For online education

SPREAD SHEET (MICROSOFT EXCEL)

Spread sheet software refers to the application software packages that are used for calculations

Examples of spread sheet software applications

- Microsoft excel
- Apple numbers
- King soft spread sheets
- Open office.org.

Common functions in excel

- MAX
- MIN
- AVERAGE
- MODE
- PRODUCT
- SQRT
- SUM
- SMALL

Meaning of the above some of the excel functions

MAX. Means finding the largest number in the range

MIN. to find the smallest number in the range

AVERAGE. Find the average number

Mode. Returns the commonest number

PRODUCT. Multiplies the number in the cell.

SQRT. Finds the square root of a number.

SMALL. Gives the 2nd smallest number.

SUM. Adds a list of numbers

COMPUTER SOFTWARE

Computer software refers to the electronic instructions and procedures that control the operation of a computer

There are two major types of software

- System software
- Application software

Examples of system software

- Operating system (OS)

Examples of application software

- Word processors
- Spread sheets
- Media players
- Games

BOOTING PROCESS

Booting is the process of starting up a computer

Types of booting

- Cold booting
- Warm booting

Cold booting is the process of starting up a computer which has been completely off

Warm booting is the process of restarting a computer which is already running

INTRODUCTION TO THE WORLD OF ICT

ICT- stands for information communication technology

ICT refers to the combination of computers and communication technologies to process data into information

EXAMPLES OF ICT TOOLS

- Radios
- Televisions
- Videos
- DVD
- Telephone
- Digital cameras
- Scanners
- Satellite systems
- Computers

VARIOUS AREAS WHERE ICT CAN BE USED

- Homes
- Schools
- Hospitals
- Police stations
- Entertainment office

USES OF ICT AT HOME

- For online shopping
- For playing music, videos and games
- ICT tools like computers can be used for printing out home documents such as reports, budgets
- For communication purposes
- ICT tools like computers can be used to pay bills

USES OF ICT AT SCHOOL

- Pupils use computers for learning purposes
- For E-learning purposes
- Teachers use ICTs to organise teaching materials
- Pupils can use computers for research purposes
- Computers can be used for keeping students records

WAYS OF KEEPING ICT TOOLS CLEAN

- Keep dust away
- Keep food away
- Use clean and dry hands to touch on tools
- Treat them with respect
- Switch off your tools during heavy rain
- Stop virus attack
- Handle with care

IMPORTANCE OF COMPUTER MAINTENANCE

Computer maintenance refers to the performing regular activities in order to prevent systems problems

IMPORTANCE

- Saves money
- Saves time
- Safe guards data by backing it up
- Improves performance of the system

ADVANTAGES OF USING ICT'S

- Employment opportunities e.g. computer teachers
- Improved education and research
- Improved entertainment
- Improved communication through computer networks
- Improved health services
- Improved security through computer managed gates
- Customer service delivery has been improved

DISADVANTAGES OF USING ICT'S

- Violation of privacy
- Un employment
- Health risks
- Environmental pollution
- Expensive to maintain computers
- Theft of documents and money
- Moral decay through pornography videos

THE INTERNET

Internet refers to the global connection of computer networks

ADVANTAGES OF USING INTERNET

- Resource sharing
- For research
- It leads to online services
- Information is easily accessible through Google
- Its accessible 24/7 hours

DISADVANTAGES OF USING INTERNET

- Spread of computer viruses
- Theft of personal information
- Expensive to have internet
- Many people are computer illiterate
- There is a lot of wrong information on the internet

SOCIAL NETWORKS

These are networks used by more than one user to share information

Examples of social networks

- Whatsapp
- Face book
- Instagram
- Twitter etc

COMPUTER LITERACY

Computer literacy is the ability to use computers and related technology

FACTORS CONSIDERED TO BE A COMPUTER LITERATE

- Turning on the computer
- Opening and creating folders and files
- Using word processing
- Having spread sheets skills
- Internet and Email use
- Basic hardware terminology
- Virus and security awareness

ADVANTAGES OF COMPUTER LITERACY

- Profitable skills e.g. through Microsoft word
- Leadership and promotions at work
- Work performance
- Easy communication
- Ability to use new media
- More job opportunities

TERMS USED WHEN SWITCHING ON AND OFF A COMPUTER

- Booting
- Cold booting
- Warm booting

Booting is the process of starting a computer

Cold booting is the starting of a computer from its power source

Warm booting is the restarting of a computer when it has failed to respond