BASIC 4 COMPUTER SECOND TERM E-LESSON NOTE

Week	Topic
1.	Computer software
2.	System software
3.	Operating system
4.	UTILITIES
5.	Application Software
6.	Uses of Computer software
7.	Setting up a computer
8.	Types of computer cable
9.	Uses of computer cable
10.	Different parts of the computer
11.	Connecting the Different parts of the Computer unit correctly
12.	Revision
13.	Examination

Class:- Basic 4

Subject:- Computer Studies

Week:- 1 and 2

Topic: Computer Software

Behavioral objective:- By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –

1. Define the term software

2. Mention the different types of software

3. Define system software

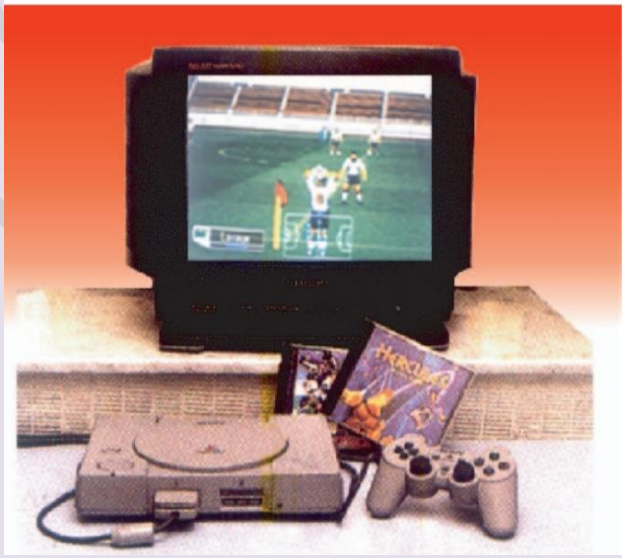
4. Mention types of system

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students are familiar with the meaning of software

CONTENT

COMPUTER SOFTWARE



Computer software Computer software is a program that makes the computer system work. It controls and monitors the working of a computer system. The computer will not work without software. Software also call programs are the instructions that tell the computer what to do and how to do it. The two main categories of software are system software and application software. The system software also called the operating system (OS) actually runs the computer. This software controls all the operations of the computer and its devices. All computers use system software and without the system software the application software will not work. The most common OS on a PC is the Windows operating system and for the Mac computer it would be the Mac operating system.

There are three types of software

1. System software/Operating system

2. Programming language

3. Application software.

A working computer needs both the hardware and the software to function. Hardware + Software = A working computer system. A computer is a machine. It cannot think, count, calculate or draw all by itself. It must be told what to do. When we give computer instructions in a program, it follows the program

The Computer appreciation and gives us the result or output. When the instructions in a program are right, the computer gives the right output. When, the instructions are wrong, the computer gives the wrong output.
There are three types of software. These are the system software, programming languages and application software.

System software
System software is a program that makes the computer system work. It controls and monitors the working of a computer system. It is also called the operating system.
Examples of system software are:
a) Disk Operating System (DOS)

b) Windows 2000 or Window NT
c) UNIX
DOS and Windows 2000 are used in microcomputers while UNIX is used in Main frame computers.

Evaluation:-

1. Define the term software

2. Mention the different types of software

3. Define system software

4. Mention types of system

Class:- Basic 4

Subject:- Computer Studies

Week:- 3

Topic: Operating system

Behavioral objective:- By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –

1. **Define operating system**
2. **Mention two examples of operating system**

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students are familiar with some examples of operating system such as printer.

CONTENT

Operating system

- Windows operating system

- MS DOS

- LINUX

- UNIX

OPERATING SYSTEM

Operating System (OS) is one of the core software programs that runs on the hardware and makes it usable for the user to interact with the hardware so that they can send commands (input) and receive results (output). It provides a consistent environment for other software to execute commands. So we can say that the OS acts at the center through which the system hardware, other softwares, and the user communicate. The following figure shows the basic working of the operating system and how it utilizes different hardware or resources.

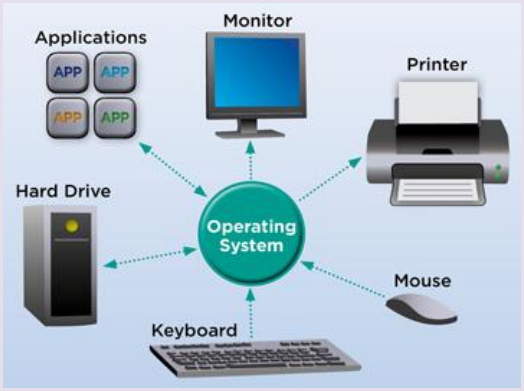


Figure: Operating system working as a core part

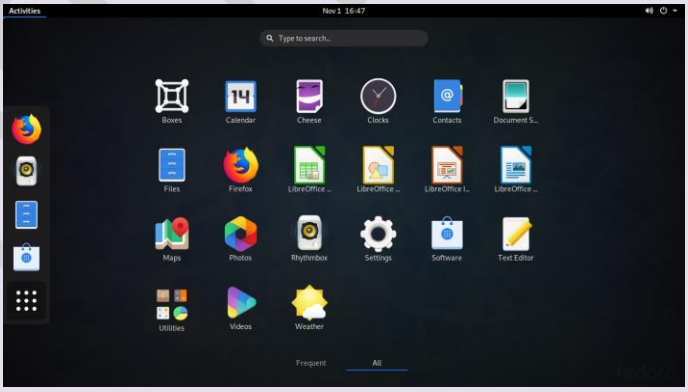
M.S DOS

Microsoft Disk Operating System, MS-DOS is a non-graphical command line operating system derived from 86-DOS that was created for IBM compatible computers. MS-DOS originally written by Tim Paterson and introduced by Microsoft in August 1981 and was last updated in 1994 when MS-DOS 6.22 was released. MS-DOS allows the user to navigate, open, and otherwise manipulate files on their computer from a command line instead of a GUI like Windows.

Windows OS, computer operating system (OS) developed by Microsoft Corporation to run personal computers (PCs). Featuring the first graphical user interface (GUI) for IBM-compatible PCs, the Windows OS soon dominated the PC market. Approximately 90 percent of PCs run some version of Windows.

LINUX OPERATING SYSTEM

Linux is a Unix-like, open source and community-developed operating system for computers, servers, mainframes, mobile devices and embedded devices. It is supported on almost every major computer platform including x86, ARM and SPARC, making it one of the most widely supported operating systems.



UNIX OPERATING SYSTEM

UNIX is an operating system which was first developed in the 1960s, and has been under constant development ever since. By operating system, we mean

the suite of programs which make the computer work. It is a stable, multi-user, multi-tasking system for servers, desktops and laptops.

Activities

1. **Your teacher will take you on a visit to offices where computers are used. The offices you will visit include a school, a government office, a hospital, a business centre and a bank.**
2. **In each of these offices, ask the computer users the various software they use and what each software does.**
3. **List the software in each office as a system software, a programming language or application software.**
4. **Your teacher will also show you all the software on the computers in your school computer room.**

Class:- Basic 4

Subject:- Computer Studies

Week:- 4

Topic: Utility software

Behavioral objective:- By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –

1. Define utility software
2. Mention examples of utility software
3. Differentiate between applications and software

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students are familiar with the meaning of utility

CONTENT

UTILITIES (I)

- Anti virus utilities software
- scan disk

Utility Software

Utility software, often referred as *utility* is a system software that is designed to help analyze, configure, optimize or maintain a computer and enhance the computer's performance. It is a program that performs a specific task, which is usually related to managing the system resources. Utilities are sometimes also installed as memory-resident programs.

Utility software usually focuses on how the computer infrastructure that includes computer hardware, application software, operating system and data storage programs operates. These utilities could range from the small and

simple to the large and complex that can perform either a single task or a multiple tasks. Some of the functions performed by these utilities are data compression, disk defragmentation, data recovery, management of computer resources and files, system diagnosis, virus detection, and many more.

Examples of Utility Program

Some of the examples of the utility programs (Utilities) include: Disk defragmenters, System Profilers, Network Managers, Application Launchers, Antivirus software, Backup software, Disk repair, Disk Cleaners, Registry Cleaners, Disk Space analyzer, file manager, File Compression, Data Security and many more. In addition, operating systems contains a number of utilities for managing disk drives, printers, and other devices.

Advantages of utility software

Utility software has been designed specifically to help in management and tuning of operating system, computer hardware and application software of a system.

- It performs a specific and useful function to maintain and increase the efficiency of a computer system
- Aids in keeping the computer free from unwanted software threats such as viruses or spyware
- Adds functionality that allow the user to customize your desktop and user interface
- Manages computer memory and enhances performance

In general, these programs assist the user to make and run their computer better. They are also used for password protection, memory management, virus protection, and file compression in order to manage all the computer functions, resources and files efficiently.

Differences between applications and utilities

Utilities differ from applications mostly in terms of size, complexity, usability and their function. Most importantly utilities are more technical and are used by the people those with an advanced level of computer knowledge. In contrast, application software is simple and can be used by any user with no or less technical knowledge.

For example spreadsheet programs, word processors, and database applications are all referred as applications as they are large programs and perform a variety of functions that are not directly related to managing computer resources.

Evaluation:-

1. Mention examples of utilities software
2. List 3 advantages of utility software
3. Differentiate between applications and software

Class:- Basic 4

Subject:- **Computer Studies**

Week:- **5**

Topic: **Application software**

Behavioral objective:- **By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –**

1. Define application software

2. **Mention examples of application software**

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students have operated on microsoft word before which is an example of application software.

CONTENT

Application Software

- Word processing software

- Spread sheet

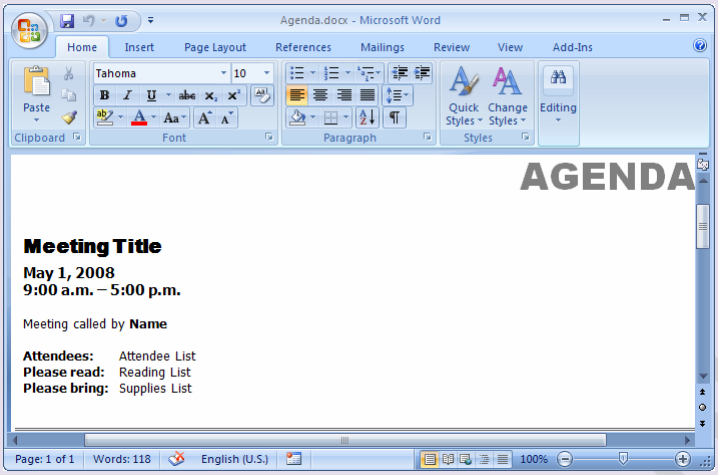
- Communication software

E.g (Explorer, outlook)

Application software

Application software is a program or group of programs designed for end users. Word processors, spreadsheets, database and drawing tools are written to perform special jobs. They are therefore called application software. Children often make use of word processors and drawing tools.

Microsoft Word is an example of an application software. We use it to type letters.

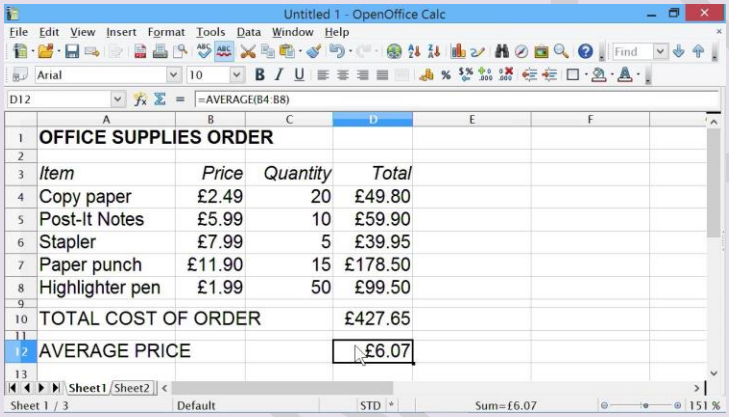


CorelDraw is also an example of an application software. It is used in drawing.

Communication software is used to provide remote access to systems and exchange files and messages in text, audio and/or video formats between different computers or users.

Spreadsheet

A spreadsheet is a computer application for organization, analysis and storage of data in tabular form. Spreadsheets were developed as computerized analogs of paper accounting worksheets.



Activity

1. **Draw the following shapes using a drawing application software like the CorelDraw: square, rectangle, triangle and circle.**
2. **Microsoft Word can be used for**
   - **i)**
   - **ii)**
   - **iii)**
   - **iv)**

Class:- **Basic 4**

Subject:- **Computer Studies**

Week:- **6**

Topic: **Uses of computer software**

Behavioral objective:- **By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –**

1. State uses of computer software

2. **Describe computer System cable**

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : **Students have operated on microsoft word before which is an example of application software.**

CONTENT

Uses of Computer software

There are a number of different types of application software available to do many of the tasks we do daily. Four examples of common application software and what they are used for are:

Word Processing Application: One word processing program is Microsoft Word. This program allows you to type letters, assignments and do any other written activity on the computer.

Spreadsheet Application: Microsoft Excel is an example of a spreadsheet program. One can use this program to create charts and do calculations.

E-mail Application: Outlook Express is an e-mail program that allows you to receive and send e-mails.

Internet Application: **Internet Explorer is a program that allows you to get connected to the Internet and look at Web sites like the one you are reading now.**

Evaluation

1. State uses of computer software

2. Describe computer System cable

Class:- **Basic 4**

Subject:- **Computer Studies**

Week:- **7**

Topic: **Setting up a computer**

- computer cables

Behavioral objective:- **By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –**

1. Describe a computer system cable

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students know that a computer must be well connected before it can work properly

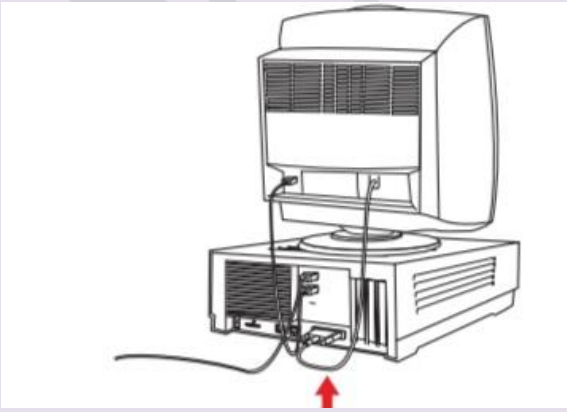
Content

Setting up a computer

How do we join these parts of the computer together? These are the steps:

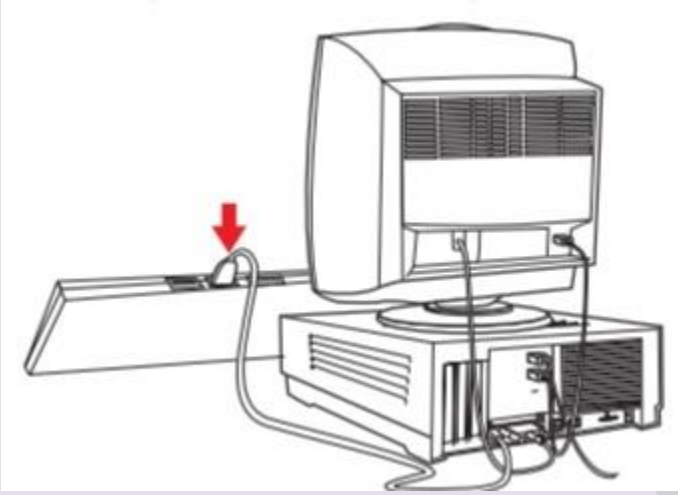
Step I

Connect the monitor to the system unit.



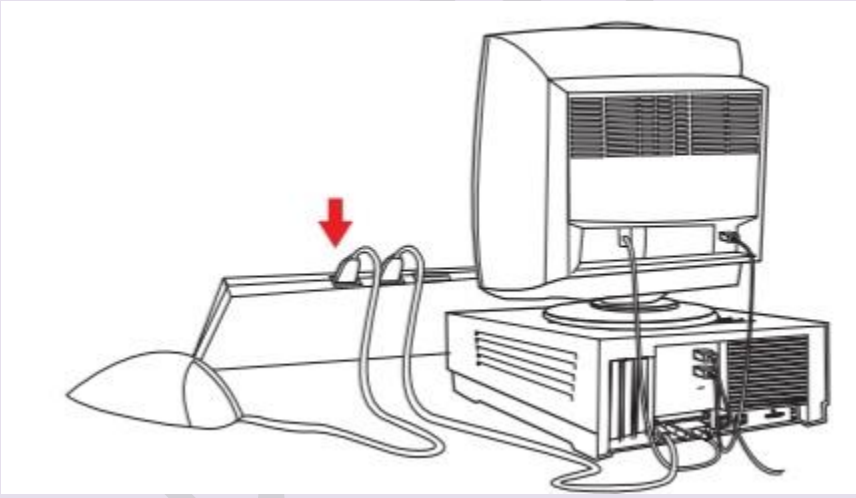
Step II

Connect the keyboard to the system unit.



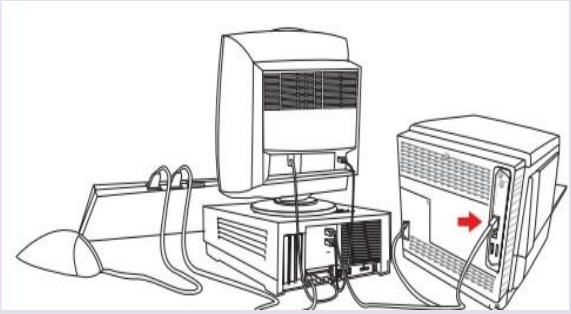
Step III

Connect the mouse to the keyboard.



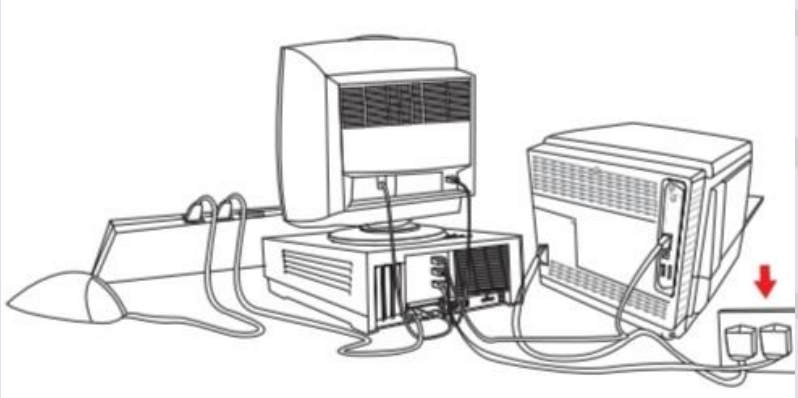
Step IV

Connect the printer to the system unit and connect the printer to the source of electricity.



Step V

Connect the system unit to the source of electricity (the socket).



Evaluation:-

1. List the procedure for setting up a computer

Class:- **Basic 4**

Subject:- **Computer Studies**

Week:- **8 and 9**

Topic: **Computer cables**

Behavioral objective:- **By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –**

1. Identify the uses of computer cable

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Students have operated on microsoft word before which is an example of application software.

CONTENT

Computer cables

Computer cables are wires used for connecting the different parts of the computer together.

Computer cables transmit data from the system unit to other parts of the computer.

Different types of computer cables are:

VGA cable connects the monitor to the system unit.

Printer cable connects the printer to the system unit.

USB cables connect keyboard, mouse and speakers to the system unit.

Power cables :- Cables that connect the system unit and the printer to the source of electricity are known as power cables.

Ethernet cable:- An Ethernet cable is a common type of network cable used with wired networks. Ethernet cables connect devices such as PCs, routers, and switches within a local area network.

Activities:-

1 In your school computer room, your teacher will show you how to connect the various parts of the computer system to one another.

Subject:- **Computer Studies**

Week:- **10**

Topic: **Different parts of a computer**

Behavioral objective:- **By the end of the lesson, the pupils should have attained the following objectives (cognitive, affective and psychomotor) and should be able to –**

1. **Identify part of the computer available for connection**

Instructional material/Reference material:- Learn Africa Computer Studies UBE edition for primary school book 4

Building Background /connection to prior knowledge : Student are familiar with various parts of the computer such as keyboard, mouse etc

CONTENT

DIFFERENT PARTS OF THE COMPUTER

We know that a computer system has many parts. A computer works only when these parts are joined together well. The various parts of the computer that must be joined together before a computer system starts to function are:

System unit

monitor

Keyboard

mouse

Printer

Evaluation:-

Identify the different parts of the computer.