

**HOËRSKOOL STAAT PRESIDENT C R SWART
COMPUTER APPLICATION TECHNOLOGY
GRADE 10**

INSTRUCTIONS

1. NOTE: Please use a **192** page workbook, leave **TWO** pages open and then copy the notes that are provided.
2. Make sure to underline each heading and sub-headings, and also to rule of after each module.
3. All drawings must be included in your notes.
4. Please mail me at kleso@hspcrswart.co.za if you have any questions.
5. Welcome and see you soon!

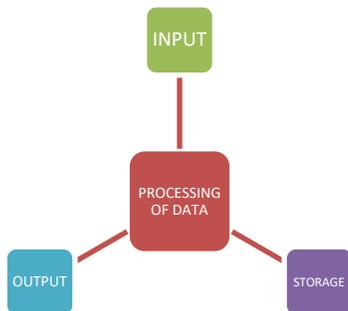


Date

Module 1.3: Hardware

Introduction

Hardware is all the things on a computer that you can physically touch



INPUT

What is input?

Input is the **data and instructions** that are given to a computer.



Programs	Commands	User Responses
A set of instructions	Given by user e.g. you click on the font size command	To a question asked by a program
Loaded into memory when activated		

- Mouse
- Keyboard

Wireless mouse and keyboard

Advantages

- Less clutter
- No cords to get tangled
- Wide range movement

Disadvantages

- Require batteries
- More expensive
- Interference with wireless signal
- Easily removed, stolen quickly and quietly.

OUTPUT

Output is whatever the computer produces to provide us with the results of its processing.

Monitor (soft copy)

1. CRT
2. LCD:

Flat panel monitors consume less space

- Flicker less
- Consume less power
- Environmentally friendly

Flat panel (LCD) viewing

- Viewing angle specific
- Most monitors have a viewing angle of at least 60 degrees.

Size of the monitor

- Measured diagonally
- In inches

Resolution

- LCD screens have a recommended resolution

Response time

- A low specification time for high quality graphics and video

Printers (hardcopy)

- **Inkjet printers:** spray microscopic dots of ink onto paper
 - Cheap to buy
 - Expensive to run
 - Produces good quality colour prints
 - Slightly slower than laser printers
- **Laser printers:** works like a photo-copier machine
 - **Expensive to buy**
 - Cheaper to run and more suited to printing large volumes
 - Prints faster
 - Black and white, colour laser printers (more expensive)
- **Connecting and using printers**
 - Printer installation
 - USB port
 - Changing the default printer
 - Printer queues (you can cancel, pause or restart the printing)

STORAGE

Non-volatile:

- Storage keeps its contents at all times
- Storage medium (CD)
- Storage device (CD/DVD-drive)

Storage capacities:

- 1KB = 1024 bytes
- 1MB = 1024 KB
- 1GB = 1024 MB
- 1 TB = 1024 GB

Hard drives:

- In case: Stores all programs and data
- External/portable: USB connected, gets power from PC.

Flash disks:

- External/portable: USB connected, gets power from PC
- Appears as another disk on PC

Ports on your computer:

- Network ports
- Firewire ports

ENVIRONMENTAL AND HEALTH ISSUES

Health concerns:

- RSI (Repetitive strain injury)
- To prevent = ergonomically designed keyboards

Health tips for using computers:

- Sit correctly
- Height of your seat and/or table
- Lighting and ventilation/ air circulation
- Mouse and keyboard placements
- Prevents eye strain
- Regular breaks

Tips on how to practice GREEN COMPUTING:

- Switch off computers and devices you are not using
- Avoid the senseless wasting of paper
- Try and repair or upgrade hardware
- Don't just throw away ink and toner cartridges
- Refill and reuse cartridges

Homework

Written Module Activity on page 35

Question 1 to 17