Storing Data

Computers store data either in chips in the main processor or on other media such as magnetic disc (backing store).

Bytes are the measurement of the memory a computer has.

Memory

Two Types:

ROM - read only memory

RAM - random access memory

Memory: this is what the *CHIPS* inside the processing unit are collectively called. Data is temporarily held while processing takes place. The data held in this way can be accessed instantly, unlike backing storage where it must first be accessed from disc or tape.

Memory is used to hold:
* Programs
* Input Data
* Working Area
* Output Data

ROM

Cannot be changed by the user. For example the 'boot' system which enables to start the computer.

RAM

The data is held temporarily, it is lost if the machine is turned off. It is used to hold programmes and data when editing / processing.

- ## **Magnetic Media**

- Floppy Disks: Two sizes 3.5 and 5.25. The smaller stores the most data as the data is held more closely together on this type of disc.

- Hard Drives: Often are several disks in a single spindle. They are able to read and write at the same time. (see example in the lab!!)

- Magnetic Tape: Not as common now as in the past. Main use is for backing up hard drives with huge amounts of data and for a long time! (Insurance companies, Banks!)

- ## **Optical Disks**

- CD-ROM: Same as audio CD's, they are read by a laser beam. Because the disc is read by light the information can be closely packed together and therefore has a huge capacity.

- ## **The comparison between a hard disk and a CD-ROM:**

- ## **Question: What's the difference?**

- ## **Magneto-optical disk:**

- Useful for storing large amounts of data. They are able to store **and** read data from the disk. Therefore ideal for mass storage.