Lesson 1

Dear Alice,

So sorry to hear about your computer challenges – it seems to be the bane of everyone's lives these days. We are so dependent on the workings and wobbles of our laptops. Mind, I shouldn't complain – without their magic we would not be conversing quite so easily as we do. So they can be a real blessing too.

Best regards,

Anna

Questions:

1. What is a PC? Write your own definition.
2. Compare your definition to the definitions of your classmates. What is it that you all have in common? Write a definition based on the best definitions that your classmates have written.
3. Why is it said that computers make the world smaller and smarter?
4. List as many fields as you can think of in which computers are used?
5. How old were you when you started using a computer?
6. Find a person in the class who started using a computer earlier than others.

Personal Computer
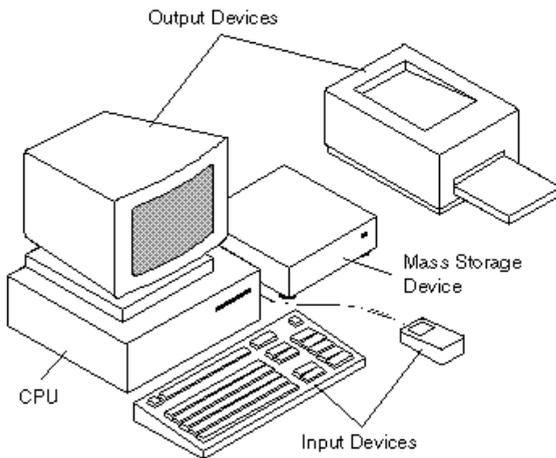
A programmable machine. The two principal characteristics of a computer are:

- It responds to a specific set of *instructions* in a well-defined manner.

- It can *execute* a prerecorded list of instructions (a *program*).

Modern computers are electronic and *digital*. The actual machinery – wires, *transistors*, and circuits – is called *hardware*; the instructions and *data* are called *software*.

All general-purpose computers require the following hardware components:

- *memory* : Enables a computer to *store*, at least temporarily, data and programs.

- *mass storage device* : Allows a computer to permanently retain large amounts of data. Common mass *storage* devices include *disk drives* and *tape drives*.

- *input device* : Usually a *keyboard* and *mouse*, the input device is the conduit through which data and instructions enter a computer.

- *output device* : A *display screen*, *printer*, or other device that lets you see what the computer has accomplished.

- *central processing unit* (CPU): The heart of the computer, this is the component that actually executes instructions.

In addition to these components, many others make it possible for the basic components to work together efficiently. For example, every computer requires a *bus* that transmits data from one part of the computer to another.

Computers can be generally classified by size and power as follows, though there is considerable overlap:

- *personal computer* : A small, single-*user* computer based on a *microprocessor*. In addition to the microprocessor, a personal computer has a keyboard for entering data, a *monitor* for displaying information, and a *storage device* for *saving* data.

- *workstation* : A powerful, single-user computer. A workstation is like a personal computer, but it has a more powerful microprocessor and a higher-quality monitor.

- *minicomputer* : A *multi-user* computer capable of supporting from 10 to hundreds of users simultaneously.

- *mainframe* : A powerful multi-user computer capable of supporting many hundreds or thousands of users simultaneously.

- *supercomputer* : An extremely fast computer that can perform hundreds of millions of instructions per second.