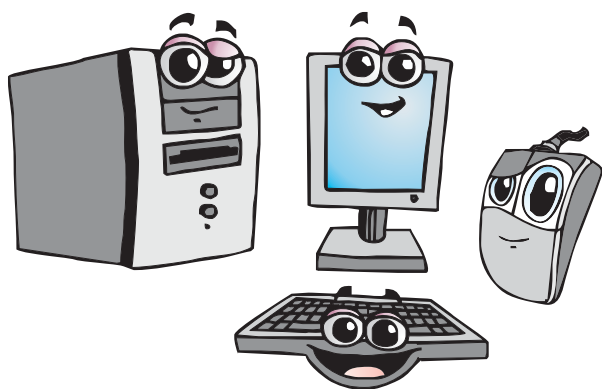# UNIT 3

ESSENTIAL COMPUTER CONCEPTS

Learning Objectives

After completing this Unit, you should be able to:

- check out what the "GIGO" concept is all about;

- explain the importance of computer applications in many fields;

- specify the characteristics and capabilities of computers;

- enumerate the ways on how the computer has made man's life easier;

- observe the commandments of computer ethics when using the computer; and

- show respect to the value of every man behind the computer.

Word Power

Multimedia

Teleconferencing

Medical Transcription

Computer Aided Design (CAD)

E-mail

Computer Ethics

Copyright

Program

Computer Programmer

GIGO

Hacking

Plagiarism

Computer Virus

Lesson 11

IMAGINE THE WORLD WITHOUT ME
Computers In Our World

A computer can perform simple or complicated tasks depending on the specific commands given by the user. The set of specific commands or instructions is called **program.** The people who create computer programs or instructions which the computer interprets are known as **computer programmers**.

The information given out by the computer depends on the instructions fed into it. If you have given the correct instructions, the computer will give out the right or correct information. But if you have entered the wrong data and instructions, the computer will also give out the wrong information. This is explained by the term called "**GIGO**", which means, Garbage In-Garbage Out.

At present, you can see many computers around you. Computers are used in different fields, businesses and other sectors in the society. People from different professions use computers to make things easier for them.

The following are the fields of assistance that computers provide as long as the correct information is given.

Computers in Education
Computers are very much used now in classrooms, libraries, laboratories, and museums.

In the classrooms, teachers use computer aided instruction (CAI) to facilitate better learning to the students.

Multimedia is a combination of text, graphics, sounds, animation, and video clips that makes learning exciting and interesting for the students. This is commonly known as **eLearning**.
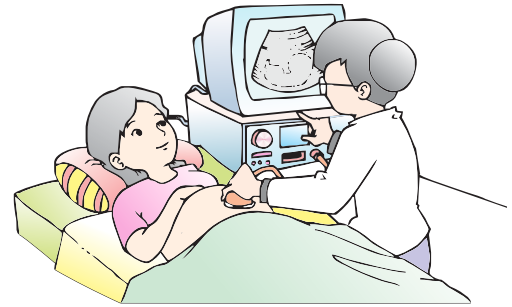
In libraries, computers are used by librarians to encode the volume of books through their titles, authors, and accession numbers that will help the students locate a specific book easily.

Most libraries now have Internet connection where computer is used to research materials and other additional information which are hardly found in the books.

Computers in Medicine

Doctors in the hospitals now use computers to help them easily diagnose the problems of the patient's body and find out the illness. Surgeons also use computers in surgical operation, making it faster and less painful for the patients. This is called laser operation.

Medical transcription is a new medical recording method applied in medicine now. Doctors use computer to dictate his diagnosis about the patient's illness to the transcriber. All the information dictated are automatically transcribed and documented in the patient's health record.

Computers in Business

Banks use computers for fast and easy financial transactions. A person with bank account can easily deposit or withdraw money anytime using the Automated Teller Machine (ATM).

Shopping malls, department stores, and supermarkets use computers to encode the prices of the products and the sales of the day. Computers are also used to check the credit cards of the customers.

Teleconferencing is a very effective communication means which employs the use of computer by businessmen. With teleconferencing, they can easily reach out to clients or business partners via computer monitor or big screen. Businessmen also use computer to keep track of their sales and profits.

Computers in Media and Entertainment

Computers have helped cartoon animators in creating excellent animation games, cartoons and animated films. The capability of computers to produce realistic visual and sound effects excite the kids and movie watchers.

People in the music industry use computers to produce better quality sounds of music.
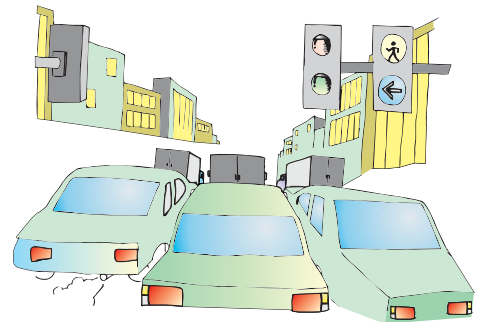
Computers in House and Building Construction

Computers are used to create design for house plans, buildings, machines and other mechanical parts. Engineers and architects use a computer program called Computer Aided Design (CAD) to work fast in drawing and creating plans and designs.

Computers in Transportation

Computer is used to control the traffic lights to have a smooth flow of transportation in the streets. Pilots use computer in their plane flights while sailors use computer for sea navigation.

Computer in Communications and Transactions

Computer allows you to communicate quickly and easily with other people in far away places through e-mail. E-mail or electronic mail is a communication tool used to send and receive messages within few seconds or minutes using the computer network.

Private and government agencies use computers so people would have easy access for inquiries and other transactions. Payments and computations for electricity, telephone and water usage are quickly computed and printed out now using the computer.