LOG IN

COMPUTER SCIENCE

This book belongs to

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Hello Uncle Babbage. What are you doing?

Oh it's so good to see you Chip. Come on in and help me with these wires.

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Dear Teachers,

We, at Greycaps, are proud to present a textbook series with a difference.

THE HONEYCOMB SERIES

The honeybee is an intriguing creature in the animal kingdom. Its characteristics reflect being adaptable, agile, well-organised, creating synergy and working in harmony. Its sole purpose is to create each hexagonal cell in the honeycomb with perfection. The queen bee gathers the efforts of all the honeybees and motivates them to strive for perfection. We believe that this life skill can be borrowed from nature and applied into the school classroom.

Every teacher is like the queen bee – focussing on different capabilities of students and striving to attain harmony within the classroom.

Each student is like a honeybee – focussing on better learning and perfection.

This novel philosophy, initiated by Greycaps, is the cornerstone upon which we create engaging material to enhance the teaching and learning experience.

Team Greycaps

OBJECTIVES

Co-existence is the key

Group learning enhances better understanding among students as learning is a collective effort.

Integration of life skills into teaching methodologies

Learning takes place in every walk of life. Learning from life skills is perhaps, the most essential part of overall student development.

Bridging the gap

It becomes imperative to adopt various innovative teaching methods to bridge gaps among students as every child is unique and learning takes place at different levels.

Hello! my young friends,

Welcome to Log In – your grade 3 guide to everything about computers!

Ever wondered what goes on inside a computer? Have you ever thought of what the different buttons on a computer mean? Well, you've come to the right place!

Get ready for a fun filled adventure with me, where you will find exciting stories, amazing pictures and games. You can even try teaching in our **TEACH CHIP** section or if you feel like having some fun, enter the **ACTIVE ZONE**.

Join me on an adventure as I help Chip learn about computers, in a cool manner!

Happy Reading!

Uncle Babbage

Note: For **ACTIVE ZONE**, the software versions referred in this book are **WINDOWS 10** and **MICROSOFT OFFICE 365**.

CHIP

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LOG IN

COMPUTER SCIENCE

How do these machines work?

A computer works in three basic steps. Other machines also work along the same steps.

The computer works in three simple steps. They are -

1) **Input** - To perform any task, a computer needs data and instructions. The instructions tell the computer about what needs to be done with the data provided. Together, these are called **input.**

2) **Processing** - **Processing** is the act of taking the data and instructions (input) and converting them into something useful.

3) **Output** - **Output** is the result that we get after the computer finishes processing.

Examples of other machines working -

What is to be done?	What goes in? (input)	How is it done? (processing)	What comes out? (output)
Making orange juice	Put orange slices in a mixer. Press the button.	Mixer crushes the orange slices	Orange juice
Washing clothes	Dirty clothes, water, detergent	Washes, spins and rinses	Clean clothes
Phone call	Caller picks up the receiver, dials the number	Number connects to another person's telephone	Two people speak over the telephone

You have seen how various machines work. Now, let us see how the computer works.

INPUT	PROCESSING	OUTPUT
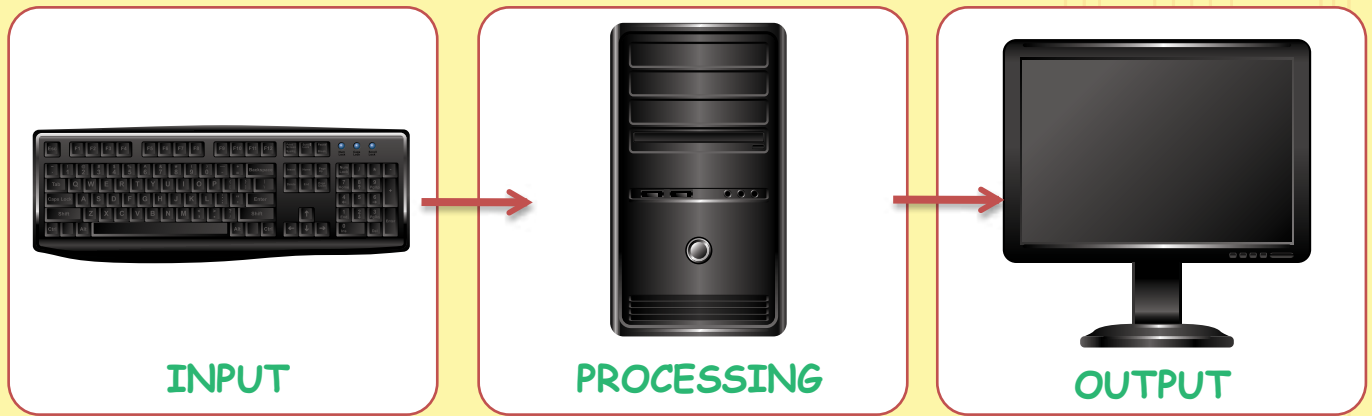
Let me explain with an example. If you want to add two numbers like 1 and 2, the steps will be as follows.

(1) (+) (2)(=)	1 + 2 = 3	3
(INPUT)	(PROCESSING)	(OUTPUT)
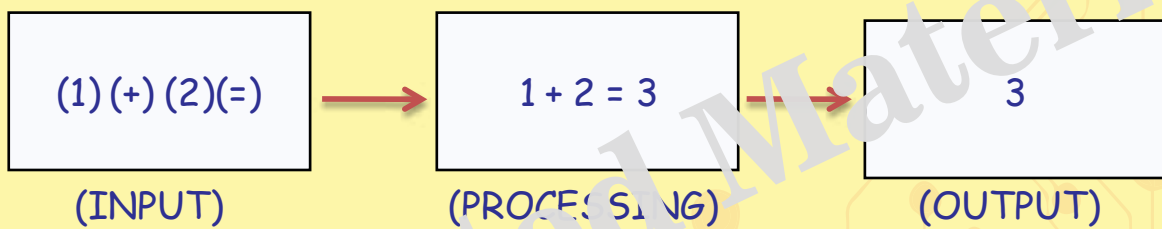
Chip, you must have seen computers of different sizes and prices in a shop. Let us learn about the different types of computers.

MOUSE TRAP

GIGO stands for 'Garbage In Garbage Out'. It means if the input is wrong then the output will also be wrong.

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TYPES OF COMPUTERS

There are four different types of computers based on size -

- Mainframe Computers
- Supercomputers
- Minicomputers
- Microcomputers

MAINFRAMES are very large and powerful computers. Hundreds, or even thousands of people can work on mainframes at the same time. They are used in organisations where the data is of large quantity.


MAINFRAMES

SUPERCOMPUTER

SUPERCOMPUTERS are faster than the mainframe computer. They are used mainly for weather forecasting, research, etc., where large amounts of data and difficult calculations are involved.

MINICOMPUTERS are lesser than mainframe computers in terms of speed and storage capacity. They are mainly used for work in engineering industries, accounts handling, managing a database, etc.

MINI COMPUTER

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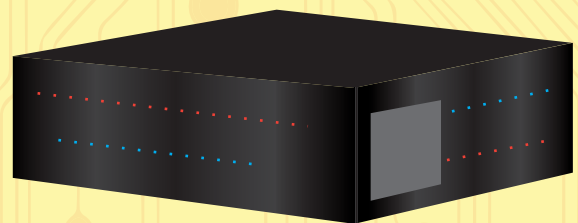
MICROCOMPUTERS

These are further classified into 3 types -

DESKTOP COMPUTERS

are small computers used by a single user. They are also known as Personal Computers or PCs. These are fixed at a single location.
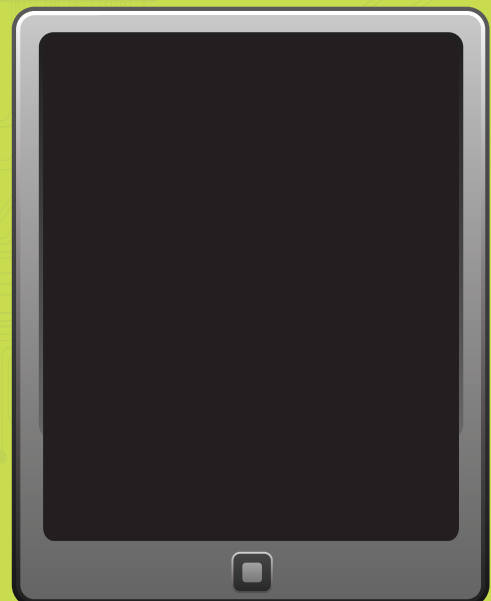

DESKTOP COMPUTER

LAPTOP COMPUTER

LAPTOP COMPUTERS

Laptop computers are portable computers. They are lightweight computers with a thin screen. They are also called 'Notebook computers' because of their small size. The screen can be folded down onto the keyboard when not in use.

TABLET COMPUTERS are computers which are smaller and easily portable. They are small and can be carried anywhere. They have touchscreens which can be operated using a pen or a stylus (a pen-like object), to accept handwritten input directly on the screen. They can be used for creating documents, storing addresses and playing games.

TABLET COMPUTER