

COMPUTER STUDIES - CLASS 01

Topic 1: Computer - A Machine

A Computer is a machine made by humans that carries out computations and functions according to inputs/instructions given. Computers provide the opportunity to perform different functions like playing games/music, ticket reservation etc. Children develop an awareness on the art of computing as they learn about the different types of computers like desktop, laptop, etc. and their functions

Learning Outcomes:

Children will be able to:

01. Relate that a machine made by humans.
02. Infer that a computer is a machine.
03. Differentiate between a desktop and a laptop.
04. List objects in their surroundings.
05. Classify objects into natural things and man-made things

Topic 2: Uses of a Computer

Computers have multiple uses and have become an integral part of our daily lives. Computers can be used for various purposes such as- source of information, playing games, listening to music, preparing presentations and documents, storing data etc.

Learning Outcomes:

Children will be able to:

01. Identify places where computers are used.
02. List the various uses of computers in daily life.

Topic 3: Parts of a Computer

The main parts of a computer are the monitor, keyboard, mouse and central processing unit (CPU) that function together to perform a task. The keyboard/mouse is used for data input, CPU to process the data and monitor to display the output. Additional devices like printer, scanner, microphone, speaker etc. are used for specific purposes.

Learning Outcomes:

01. Recognise and identify the main parts of a computer.
02. Describe the functions of the main parts of a computer.
03. List additional devices of the computer.
04. Illustrate the inter-connectivity of different parts of a computer.

Topic 4: Using Computers - Do's and Don'ts

A computer operates on electricity hence it entails certain safety precautions that must be undertaken to develop an awareness among children on the Do's and Don'ts while operating computers.

Learning Outcomes:

Children will be able to:

01. Maintain correct posture/ distance while using a computer.
02. Show ways of taking care of computers.
03. Practise safety rules while using a computer.
04. Develop habits of sharing computer resources.

Topic 5: Computer Mouse

A computer mouse is a pointing device used to input data. There are two buttons namely the left and right buttons and a scroll wheel. A mouse pad must be used for a smooth functioning of a mouse.

Learning Outcomes:

Children will be able to:

01. Identify the buttons and the scroll wheel on a mouse.
02. Perform appropriate actions using the left/right buttons and scroll wheel.
03. Recognise the need for a mouse pad while using a mouse.

Topic 6: Computer Keyboard

A computer keyboard is an input device that consists of alphanumeric, numbers and special keys. It is primarily used to enter text.

Learning Outcomes:

Children will be able to:

01. Identify and locate alphanumeric and arrow keys on a keyboard.
02. Demonstrate the uses of different keys.

● Topic 7: Storage Devices

A storage device is a hardware that is used to store data and other information either temporarily or permanently.

Learning Outcomes:

Childrens books will be able to:

01. Describe data in simple terms.
02. Identify storage devices and their usage.

DATE	LESSONS	CHAPTER NAME
June 6-24	Chapter 1	Computer A Machine
June 24-July 21	Chapter 2	Let's Get Familiar With Computers
July 25 -Aug 22	Chapter 3	Parts of Computers
September 12-September30	Chapter 4	Computer Lab Manners
October 6-October 26	Chapter 5	Know your Keyboard
October 31-Nov25	Chapter 6	How to use a Mouse
January 5-25	Chapter 7	Drawing with Paint

January 25-February17	Chapter 8	Fun with Tux paint
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Curriculum based Mark

Division

EXAM	MARKS	LESSONS	CHAPTER NAME
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First Mid term	25	Chapter 1 Chapter 2	1.Computer A Machine 2.Lets get familiar with computer
First Terminal	40	Chapter 1 Chapter 2 Chapter 3	1.Computer A Machine 2.Lets get familiar with computer 3.Parts of computer
Second Mid Term	25	Chapter 4 Chapter 5	4.Computer lab Manners 5.Know your keyboard
Second Terminal	40	Chapter 4 Chapter 5 Chapter 6	4.Computer lab Manners 5.Know your keyboard 6.How to use a Mouse
Final exam	40	Chapter 7 Chapter 8	7.Drawing with Paint 8.Fun with Tux paint

COMPUTER STUDIES - CLASS 02

Topic 1: Computer – An Electronic Device

A computer is an electronic device that works on IPO cycle (Input-Process-Output). It is primarily used to input data, process it to produce the required final output.

Learning Outcomes:

Children will be able to:

01. List out how computers are an electronic device.
02. Compare a human and a computer in their ways of working.
03. List the advantages and disadvantages of using a computer.

Topic 2: Role of Computers

A computer is a multitasking device that performs various tasks. It plays a vital role in the learning and teaching process.

Learning Outcomes:

Children will be able to:

01. Recall the uses of computers.
02. Specify computer's integration in classroom activities.
03. Correlate computer use with topics they study in other subjects.

Topic 3: Input and Output Devices

Input devices are used to enter text/data whereas output devices are used to display desired result. In some cases, output devices may function as storage devices. For example – CD, pen drive.

Learning Outcomes:

Children will be able to:

01. Identify the input and output devices.
02. State the functions of each device.

Topic 4: Keyboard – Special Keys

The keyboard has special keys to perform specific tasks, along with alphanumeric keys. Children will identify the uses of key combinations when using the keyboard.

Learning Outcomes:

Children will be able to:

01. Identify and use the special and punctuation keys.
02. Recall that certain keys are used in combinations.
03. Describe the functions of the different types of keys.

Topic 5: Mouse – an Input Device

A Mouse serves as an input device to type text, play games, draw pictures, watch videos etc.

Learning Outcomes:

Children will be able to:

01. Identify different activities performed on a mouse.
02. Use the mouse to perform drag and drop activities.

Topic 6: Introduction to Paint

Paint software is a utility software used to transform ideas into picture using various tools.

Learning Outcomes:

Children will be able to:

01. Use shape tools to draw pictures.
02. Open, minimize, maximize and close the paint window.
03. Open and save a file.

Topic 7: File Management – An Introduction

Files are pictures, documents, presentations etc. created using a software. File management helps us to organise files in the computer.

Learning Outcomes:

Children will be able to:

01. Develop an awareness on the importance of file management.
02. Save a file in the specified path.

DATE	LESSONS	CHAPTER NAME
June7-June29	Chapter 1	Introduction to computer
July 5-July 21	Chapter 2	Parts of computer
July 25-August19	Chapter 3	Uses of computers

September 14-October 3	Chapter 4	Introduction to keyboard
October 7-November 20	Chapter 5	Introduction to Mouse
January 3-January27	Chapter 6	More on Ms paint
February 3-February 19	Chapter 7	Tux paint

Curriculum based Mark Division

EXAM	MARKS	LESSONS
First Mid term	25	Chapter 1 Chapter 2
First Terminal	40	Chapter 1 Chapter 2 Chapter 3
Second mid term	25	Chapter 4
Second Terminal	40	Chapter 4 Chapter 5
Final exam	40	Chapter 6 Chapter 7

COMPUTER STUDIES - CLASS 03

Topic 1: A Computer System

A computer system is a complex system to perform specific tasks. It consists of hardware and software components. Hardware is the physical part of the computer whereas software is the program that makes the hardware work. According to Input-Process-Output (IPO) model, the computer system accepts data as input, processes it to provide the required output.

Learning Outcomes:

Children will be able:

01. locate input and output devices.
02. define a computer system.
03. describe briefly the components of the CPU.
04. explain the working of a computer using an IPO model.
05. explain the need of software to make the hardware work.
06. correlate parts of a computer in terms of its hardware.

Topic 2: GUI Operating System – An Introduction

An operating system (OS) is an interface between the hardware and user. It is responsible for the management and coordination of activities and the sharing of the resources of a computer. The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons.

Learning Outcomes:

Children will be able to:

01. describe the basic terminologies related to GUI.
02. list different types of OS and their functions.
03. use various power modes of the computer.

Topic 3: Word processor – An Introduction

Word processor is a software program used to store, format or manipulate a text document such as a letter, a resume or a report. It provides tools for typing, copying, deleting and various types of formatting and editing. Saving is a concept of moving data from a temporary storage area to a permanent one so that continuation or editing of a file is possible later on.

Learning Outcomes:

Children will be able to:

01. explain the purpose of word processors.
02. describe the components of the word processor window.
03. create, save and close a file.
04. differentiate between save and save as.
05. open and edit an existing file.

Topic 4: The Internet – An Introduction

The Internet is a global system of interconnected computer systems. It is used for many constructive purposes like collecting and sharing information. It is important to be responsible and follow Netiquettes for safe browsing on the Internet.

Learning Outcomes:

Children will be able to:

01. explain the purpose of the Internet.
02. list its advantages and disadvantages.
03. classify basic terminologies.
04. open a website using the web browser.
05. list the best practices while using the Internet.
06. list out safety precautions.
07. give reasons for following safety precautions while working online.

Topic 5: Fun with Paint

Paint software is a utility software used to draw, copy and edit pictures using various tools. While saving the file various file extensions are used based on the type of software. For example, digital pictures can be stored in formats like .png,.jpg etc. This would be helpful in organising the files in the computer.

Learning Outcomes:

Children will be able to:

01. use various tools of Paint to draw and modify a picture.
02. save a file in different formats.

Topic 6: File Management – Organization of Folders

As files are documents, presentations, etc. created using software, folders are hypothetical spaces at desired locations to store information in the computer. Folders are used to organize files that may contain other folders/ individual files.

Learning Outcomes:

Children will be able to:

01. explain the concept of a folder.
02. save a file in the folder using a specified path.

Date	Lessons
6 - 16 June 2022	Introduction to Computers
18 June - 8 July 2022	More About Keyboard
18 July - 20 August 2022	The Operating System
12 - 30 September 2022	Starting Windows
3 - 21 October 2022	More on MS Paint
3 - 18 November 2022	Introduction to MS Word 2016
21 November - 12 December 2022	Introduction to Multimedia
3 - 23 January 2023	More on Tux Paint
24 January - 7 March 2023	Internet

Exams	Marks	Lessons	Chapter names	Mark division
First midterm examination	25	Chapter 1	Introduction to computers	16
		Chapter 2	More about keyboard	9
First terminal examination	40	Chapter 1	Introduction to computers	12
		Chapter 2	More about keyboard	16
		Chapter 3	The operating system	12
Second midterm examination	25	Chapter 4	Starting Windows 10	15
		Chapter 5	More on MS Paint	10
Second terminal examination	80	Chapter 4	Starting Windows 10	20
		Chapter 5	More on MS Paint	30
		Chapter 6	Introduction to MS Word 2016	30
Annual examination	80	Chapter 7	Chapter 1,2,3	15
			Chapter 4,5,6	15
		Chapter 8	Introduction to Multimedia	20
			More on Tux Paint	20

		Chapter 9	Internet	10
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COMPUTER STUDIES - CLASS 04

Topic 1: Computers – Storage and Memory device

A Computer system is a highly organised system that processes data which is a representation of facts, concepts or instructions. Processed data become information on which decisions and actions are based. Bits and Bytes are the basic units to represent data in the computer system. Computer data storage often called storage or memory is a technology used to retain digital data internally or externally. There are two types of memory – Internal and External.

Learning Outcomes:

Children will be able to:

01. Differentiate between the terms data and information.
02. Explain the purpose of internal and external memory.
03. Describe different data storage units.
04. List the primary and secondary data storage devices.

Chapter 1 : Computer Devices

Topic 2: GUI Operating System – Desktop Management

The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons. Using this interface, user can customise the wallpaper, screen/desktop, set time/date, etc.

Learning Outcomes:

Children will be able to:

01. Recall the features of OS and GUI.
02. Identify and use the Task Bar, Quick Launch Bar and shortcut menu.
03. Customize the windows setup.

Chapter 2 : Windows 10

Topic 3: Tools of Word Processor

Editing tools present in the word processing software are used to modify documents while Formatting tools are used to design how each page of the document will appear

when it is printed. The printer is an output device (hardware) connected to the computer, that enables the user to take a hard copy of the files stored in the internal/ external storage devices.

Learning Outcomes:

Children will be able to:

01. Use various features of editing and formatting.
02. Use shortcut keys.
03. Prepare a document based on their requirement.
04. Preview and print a document.

Chapter 5 : MS Word 2016

Chapter 6 : Formatting a Word Document

Topic 4: The Internet - Web Browser

A web browser is a software which enables the user to interact with text, images, videos, music, and other information present on the internet.

The Search Engine is a software that is used to search information on the Internet. While searching for information using Search Engines, the user has to use the appropriate keywords. It is important to be more responsible and follow Netiquettes for safe browsing on the internet.

Learning Outcomes:

Children will be able to:

01. Label the parts of a browser window.
02. Define the terminologies related to Internet Network.
03. Use appropriate keywords to collect information.
04. Make responsible decisions while browsing.

Chapter 8 : Internet

Topic 5: Presentation Software – An Introduction

The presentation software is a software that enables the user to present information, graphics, videos, etc. through slide shows in an attractive way. This software ensures that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

01. Explain the purpose of presentation software.
02. Choose appropriate layouts according to the requirement.
03. Create, add text and images to the slide.
04. Navigate between the slides.
05. Present a slideshow.

Chapter 7 : Introduction to MS PowerPoint 2016

Topic 6: Stepwise Thinking

Step-Wise Thinking helps in converting complicated tasks into simple steps, predicting the possible solutions to achieve the desired goal. For example – Planning and organising a birthday party, summer trip.

Learning Outcomes:

Children will be able to:

01. Analyze the task.
02. Break up the task into simple steps.
03. Predict possible solutions.

Enhance Your Knowledge

Topic 7: Features of File Management

Folder is a location to store information in the computer. It is used to organize files and folders according to the user's requirements.

Learning Outcomes:

Children will be able to:

01. Copy and move a file/folder.
02. Rename and delete files and folders.
03. Inculcate habits not to tamper others' files or folders.

Chapter 2 : Windows 10

<u>Date</u>	<u>Lesson(s)</u>	<u>Chapter Name</u>
June 2022	Chapter 1	Computer Devices
July 2022	Chapter 2	Windows 10
September 2022	Chapter 5	MS Word 2016
October 2022	Chapter 6	Formatting a Word Document
December 2022	Chapter 7	Introduction to MS PowerPoint 2016
January 2023	Chapter 8	Internet
February 2023		Enhance Your Knowledge

CURRICULUM BASED MARK DIVISION

Exam	Marks	Lesson(s)	Chapter Name	Mark Division
First Mid Term	25	Chapter 1	➤ Computer Devices	→ 25
First Terminal	40	➤ Chapter 1 ➤ Chapter 2	➤ Computer Devices ➤ Windows 10	→ 19 → 21
Second Mid Term	25	➤ Chapter 5 ➤ Chapter 6	➤ MS Word 2016 ➤ Formatting a Word Document	→ 14 → 11
Second Terminal	80	➤ Chapter 5 ➤ Chapter 6 ➤ Chapter 7	➤ MS Word 2016 ➤ Formatting a Word Document ➤ Introduction to MS PowerPoint 2016	→ 28 → 22 → 30
Final	80	➤ Chapter 1 ➤ Chapter 2 ➤ Chapter 5 ➤ Chapter 6 ➤ Chapter 7 ➤ Chapter 8	➤ Computer Devices ➤ Windows 10 ➤ MS Word 2016 ➤ Formatting a Word Document ➤ Introduction to MS PowerPoint 2016 ➤ Internet ➤ Enhance Your Knowledge	→ 09 → 11 → 12 → 08 → 19 → 17 → 04

COMPUTER STUDIES - CLASS 05

Topic 1: Evolution of Computers

The evolution of computers started way back in the late 1930s and the first known device was Abacus. Based on the hardware, the evolution of computers has been classified into five generations.

Learning Outcomes:

Children will be able to:

01. Describe the history of computers.

02. State its characteristics and limitations.
03. Compare the generations of computers.
04. Keep pace with the latest developments related to technology.

Chapter 1 : Computer and Its Evolutions.

Topic 2: Types of Software

A software is the programme that makes the physical computer perform specific tasks. Based on function and purpose, software is broadly classified into System and Application software.

Learning Outcomes:

Children will be able to:

01. Define the term software.
02. Explain the types of software and their purpose with examples.
03. Differentiate between system software and application software.
04. Backup files.
05. Scan the System/Drive/File.
06. Use defragmentation utility

Chapter 2 : Types of Software.

Topic 3: Advanced Features of Word processor

Formatting and Editing tools are used to design how each page of a document will appear when it is printed. Additional features like find/ replace/insert are used for editing purposes and in some cases, to create a report. Using drawing tools like shape tools, user can insert pictures as per their requirements to enhance the look of the document.

Learning Outcomes:

Children will be able to:

01. Enhance the document by using advanced formatting tools.
02. Use editing tools.
03. Use drawing tools.

Chapter 4 : More on MS Word 2016.

Chapter 5 : Inserting Tables in MS Word.

Topic 4: Presentation software – Special Effects

Presentations can be enhanced in an attractive manner by using various tools like clipart, word art, animations, etc. These ensure that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

01. Express the topic attractively using different templates.
02. Enhance the presentation by applying formatting effects and inserting objects.

Chapter 6 : MS PowerPoint 2016

Topic 5: An Introduction to Scratch Programming

Programming is the process of taking an algorithm/stepwise-thinking and encoding it into a programming language, so that a computer can execute it and produce the desired output.

Scratch is a free programming software that enables children to create their own games, animated stories and interactive art.

Learning Outcomes:

Children will be able to:

01. Explain the concept of programme and programming.
02. Work on scratch interface.
03. Handle basic commands.
04. Develop logical thinking.

Chapter 9 : Introduction to Scratch.

Topic 6: Internet Services

Internet services enables the user to access and gain information through use of the internet. There are different ways to connect to the internet. For example, dial-up, broadband and wireless services.

Learning Outcomes:

Children will be able to:

01. Identify the ways to connect to the Internet services.
02. Use different internet services.
03. Follow Netiquettes while communicating online.

Chapter 8 : Internet.

<u>Date</u>	<u>Lessons</u>	<u>Chapter Name</u>
June 2022	Chapter 1	Computer and Its Evolutions.
July 2022	Chapter 2	Types of Software.
September 2022	Chapter 4	More on MS Word 2016.
October 2022	Chapter 5	Inserting Tables in MS Word.
November 2022	Chapter 6	MS PowerPoint 2016
January 2023	Chapter 8	Internet.
February 2022	Chapter 9	Introduction to Scratch.

CURRICULUM BASED MARK DIVISION

Exam	Marks	Lesson(s)	Chapter Name	Mark Division
First Mid Term	25	Chapter 1	➤ Computer and Its Evolutions.	25
First Terminal	40	➤ Chapter 1 ➤ Chapter 2	➤ Computer and Its Evolutions. ➤ Types of Software.	19 21
Second Mid Term	25	➤ Chapter 4	➤ More on MS Word 2016.	25
Second Terminal	80	➤ Chapter 4 ➤ Chapter 5 ➤ Chapter 6	➤ More on MS Word 2016. ➤ Inserting Tables in MS Word. ➤ MS PowerPoint 2016	26 24 30
Final	80	➤ Chapter 1 ➤ Chapter 2 ➤ Chapter 4	➤ Computer and Its Evolutions. ➤ Types of Software. ➤ More on MS Word 2016.	08 10 12

	<ul style="list-style-type: none"> ➤ Chapter 5 ➤ Chapter 6 ➤ Chapter 8 ➤ Chapter 9 	<ul style="list-style-type: none"> ➤ Inserting Tables in MS Word. ➤ MS PowerPoint 2016 ➤ Internet ➤ Introduction to Scratch. 	<p>08</p> <p>11</p> <p>15</p> <p>16</p>
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COMPUTER STUDIES - CLASS 06

Topic 01: Categories of Computers and Computer Languages

This theme focuses on computers and computer languages. Computers are categorized based on the basis of (i) generation, (ii) type, (iii) purpose and (iv) size, speed, processing power and price. The aim of this theme is to enable children to communicate with the computer, by using specific languages that are broadly into three categories, i.e., machine language, assembly language and higher-level language. They will also become aware of all the different operations performed by a computer which are controlled by computer programs written in a computer programming language.

Learning Outcomes:

Children will be able to:

01. Classify computers into different categories;
02. Differentiate between computers on the basis of RAM size, Storage capacity, CPU speed, etc.;
03. Describe a Computer Language.
04. Explain the evolution of computer languages with their features;
05. Differentiate between different computer languages;
06. Explain the importance of 4GLs;
07. Explain the working of translators by differentiating between an interpreter and compiler.

Chapter 01

Topic 02: File Management – Organization of Data

Building on children's previous learning in primary classes this Topic covers additional and advanced features on file management which will enable them to organise data better. It is important to understand file format as it makes the task of file management easier. In file management the focus of this theme is that they develop the ability to undertake common operations on stored files such as editing, viewing, copying, playing, moving and deleting files enable better management,

access and retrieval/ sorting of files by type, name, size, date (created or modified). File management will also help them to transfer data from one device to another and work with multiple applications at the same time. Understanding of a file format is important as it makes the task of file management easier.

Learning Outcomes:

Children will be able to:

01. Move/copy data from one drive to another drive;
02. Move/copy data between storage devices (pen drive, C.D. hard disc);
03. Use two or more applications at the same time;
04. Search files and folders;
05. Compare different file formats.

Chapter 02

Topic 03: Word Processor - Tabular Presentation

One of the most common but an important formatting feature of the word processor is 'Tables'. Tables are a method of presenting data in a document, in rows and columns. Blank tables can be inserted or drawn. A table can be simple (based on a metrics) or complex (having different number of rows in columns or vice versa). Intersection of a row and column is a cell. After entering data in a table, it can be modified as per the requirement.

Learning outcomes:

Children will be able to:

01. Define table;
02. Create a table and enter data in the table;
03. Edit a table;
04. Format the row/ column/table;
05. Apply borders and shading in tables.

Chapter 03

Topic 04: Word Processor – Mail Merge

The topic Mail merge is an important feature of the word processor. The aim is to develop the ability in children so as to enable them to create personalised letters for bulk mailing in a short period of time and address/ mailing labels by using this facility.

Learning outcomes:

Children will be able to:

01. Describe Mail merge;
02. Apply the concept of mail merge to multiple addresses;
03. Handle various components of mail merge;
04. Use mail merge to create multiple personalized documents from a single one.

Chapter 03

Topic 05: Presentation – Visual Effects

Presentation software is an application software that aims at enabling children to access their ideas easily while making a presentation through slide shows. It also provides the audience with visual information. They will understand appreciate how presentations can be made more attractive and interactive by using animations, sound, video, etc.

Learning outcomes:

Children will be able to:

01. Demonstrate different ways of viewing a presentation;
02. Present a Topic 0in an attractive manner by using different objects;
03. Enhance the presentation by applying transitions and custom animations;
04. Navigate between slides during a slide show;
05. Import data from other applications.

Chapter 05

Topic 06: Scratch Programming – Introduction to Game Creation

In previous learning of the Topic on 'Scratch' children learnt how to handle basic motion block. This Topic aims at enabling children to handle and work with looks, control pen, and sound blocks of Scratch programming.

Learning outcomes:

Children will be able to:

01. Handle commands of different blocks;
02. Create a working multiplayer game.

Chapter 06

Topic 07: HTML - An Introduction

HTML an acronym for Hyper Text Markup Language, is the language used to describe structured documents as well as to create web pages in Internet. Hyper Text refers to links that connect web pages/ web sites and Markup means a set of markup tags. This aim of this topic is to enable children to understand the different features of HTML and develop the ability to design a simple web page using HTML editors.

Learning outcomes:

Children will be able to:

01. Define HTML;
02. Differentiate between web page, web site and web browser;
03. List various features of HTML;
04. Use various HTML tags;
05. Design a web page.

Chapter 07

Topic 08: Internet – Online Surfing

Internet is the largest wide area network. It provides us many facilities and services. In this chapter we will discuss internet services such as E-mail, E-commerce, Blogging, Podcasting and Google drive (to store and share data). The focus of this topic is to develop children's interest, understanding of and ability to use the Internet in simple ways.

Learning outcomes:

Children will be able to:

01. Communicate through email;
02. Store and share data using google drive;
03. Explain online services of e-commerce;
04. Create a blog;
05. Express views/ opinions through blogs;
06. Differentiate between a website and a blog;
07. Create a podcast.

Chapter 08

CURRICULUM BASED YEAR PLAN

<u>Date</u>	<u>Lessons</u>
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June 2022	Chapter 1
July-August 2022	Chapter 2
September-October 2022	Chapter 3
October-November 2022	Chapter 5
December 2022	Chapter 6
January 2023	Chapter 7
February 2022	Chapter 8

CURRICULUM BASED MARK DIVISION

Exam	Marks	Lesson(s)	Mark Division
First Mid Term	25	Chapter 1	→ 25
First Terminal	40	➤ Chapter 1 ➤ Chapter 2	→ 19 → 21
Second Mid Term	25	➤ Chapter 3	→ 25
Second Terminal	80	➤ Chapter 3 ➤ Chapter 5 ➤ Chapter 6	→ 26 → 24 → 30
Final	80	➤ Chapter 1 ➤ Chapter 2 ➤ Chapter 3 ➤ Chapter 5 ➤ Chapter 6 ➤ Chapter 7 ➤ Chapter 8	→ 08 → 10 → 19 → 16 → 11 → 08 → 08

COMPUTER STUDIES - CLASS 07

Topic 01: Computer - Hardware Components

Computers comprise of two major components: hardware and software that are integral to each other's functioning. Hardware are either external, like, monitor, keyboard, mouse, printer, etc., or internal, like, CPU, motherboard, drive, sound card

and video card. This theme aims at enabling children to know and understand the two major components of the computer.

Learning Outcomes:

Children will be able to:

01. Recognize different components of a computer like SMPS, ports, MODEM and disc drives.
02. Explain the usage of different components.
03. Differentiate between external and internal hardware.
04. Cite examples of external and internal hardware.

Chapter 01

Topic 02: Number System – An Introduction

Number System is a set of values used to represent different quantities. In day-to-day life we use the decimal number system, which has a base of 10 as it uses 10 digits (0-9). The digital computer represents all kind of data and information (text, numbers, graphics, video, etc.) in binary numbers which have a base of 2 as the computer uses 2 digits (0 and 1). Other number systems used in computer are octal and hexadecimal. Values from one number system can be converted to other number system. This theme aims at enabling children to know and understand the different number systems and their uses in general and in particular, that of the digital computer.

Learning outcomes:

Children will be able to:

01. Explain the need for Number Systems;
02. List the uses of various Number Systems in computer learning;
03. Convert a value from decimal number system to binary and vice versa;
04. Citing examples of binary, decimal conversion and demonstrating them.

Chapter 02

Topic 03: Computer Virus

A computer virus is a 'piece of code' that copies itself and corrupts the system to destroy existing data on a computer. Computer viruses are manmade. There are many types of viruses which infect systems in different ways causing damage to the system. To counter-effect the virus, antivirus programs are developed. This Topic aims at developing children's ability to understand and discuss about what a computer virus is the different types, symptoms and causes along with remedies and protection tips.

Learning outcomes:

Children will be able to:

01. Define a virus.
02. List different types of viruses.
03. Follow standard measures to prevent virus attack.
04. Identify symptoms of virus attack on a computer.
05. Use suitable antivirus software.

Chapter 08

Topic 04: Ethics and Safety Measures in Computing

Ethics in computing or computer ethics is a set of moral principles which regulate the use of computers. This theme aims at making children aware of the ethics in computing while using the Internet. Further, in order to safeguard the computer and prevent attacks of viruses and hacking, etc. they will know about certain safety features which need to be applied.

Learning outcomes:

Children will be able to:

01. Follow ethics in computing;
02. Identify online threats;
03. Identify positive and negative uses of social media;
04. Show responsible behavior when using computer and internet;
05. Become responsible digital citizens;
06. Take care about the digital footprint being created by their online behavior;
07. Use information ethically when developing presentations/ projects/ etc.

Chapter 08

Topic 05: Spreadsheets - An Introduction

A Spreadsheet is an interactive computer application for storing data, in a tabular form (in rows and columns of a grid), that can be manipulated and used for calculations. Spreadsheets are one of the most popular uses of computer. This Topic aims at developing children's understanding about the basic components and operations of the Spreadsheet, namely: creating/ saving/ modifying a workbook.

Learning outcomes:

Children will be able to:

01. Define a spreadsheet;
02. List the features and components of a spreadsheet;
03. Create a worksheet;
04. Identify the components of spreadsheet window;
05. Differentiate between a workbook and a worksheet;
06. Edit/format a worksheet.

Chapter 05

Topic 06: Database and DBMS – An Introduction

Database is an organised collection of data. DBMS, an acronym for Data Base Management System, is an application software for creating and managing databases. It provides facility to create, update, retrieve and manage data.

In this topic children will know and understand about the basics of creating a database and will develop the ability to design simple query statements.

Learning outcomes:

Children will be able to:

01. Define database and DBMS;
02. List real life examples of databases;
03. Design a database;
04. Describe different data types;
05. Define a primary Key;
06. Create a table, insert data, save and edit a table;
07. Build query statements

Chapter 06

Topic 07: HTML – Advanced Features

This topic will develop children's ability to create a web page by not only using basic HTML tags, but upgrading their skills to use advanced tags like lists, images, links, tables and forms. This will make the creation of a web page more attractive and useful to children.

Learning outcomes:

Children will be able to:

01. Add advanced features to a web page, like lists, images, links, tables and forms

Chapter 07

CURRICULUM BASED YEAR PLAN

<u>Date</u>	<u>Lessons</u>
June 2022	Chapter 1
July 2022	Chapter 2
September 2022	Additional Topic - PowerPoint Presentation
October 2022	Chapter 5
December 2022	Chapter 6
January 2023	Chapter 7
February 2022	Chapter 8

CURRICULUM BASED MARK DIVISION

Exam	Marks	Lesson(s)	Mark Division
First Mid Term	25	Chapter 1	→ 25
First Terminal	40	➤ Chapter 1 ➤ Chapter 2	→ 19 → 21
Second Mid Term	25	➤ Additional Topic - PowerPoint Presentation	→ 25
Second Terminal	80	➤ Additional Topic - PowerPoint Presentation ➤ Chapter 5 ➤ Chapter 6	→ 33 → 32 → 15
Final	80	➤ Chapter 1 ➤ Chapter 2 ➤ Additional Topic - PowerPoint Presentation ➤ Chapter 5 ➤ Chapter 6 ➤ Chapter 7 ➤ Chapter 8	→ 05 → 04 → 19 → 14 → 18 → 10 → 10

COMPUTER STUDIES - CLASS 08

Topic 01: Operating System (OS) and Graphical User Interface (GUI) – Role and functions

This topic will familiarize and develop children's understanding about the operating system as an integral and important program of a computer system. It can be Character User Interface (CUI, e.g. DOS) or Graphical User Interface, GUI (e.g. Windows). They will know about some of the functions of OS: to boot the computer, perform basic computer tasks like managing peripheral devices (mouse, keyboard, printer, etc.), handling system resources, like computer's memory, sharing CPU, etc.

Learning outcomes:

Children will be able to:

01. Differentiate between CUI and GUI in terms of multitasking;
02. List the features, functions and advantages of GUI

Chapter 01

Topic 02: Spreadsheet – Functions and Charts

This topic will expose children to spreadsheet is used the built-in features and tools of spreadsheets namely functions, charts, etc.

Learning outcomes:

Children will be able to:

01. Edit and format a worksheet;
02. Define cell range and apply formula;
03. Differentiate between different cell referencing;
04. Edit a sheet from sheet tab;
05. Formulate a function and create a chart.

Not included in the current textbook.

Topic 03: Algorithms and Flowcharts

An algorithm is 'rules or procedures' for solving problems and are used in all aspects of daily life activities. Two important aspects of algorithms are that the problem should be expressed in detail and without ambiguity. A Flowchart is a diagrammatic

representation of an algorithm, in which different steps are shown as symbols of different shapes connected by arrows. To solve any problem, it is important to follow the stepwise strategy. This Topic focuses on enabling children to know and understand about an algorithm and flow chart and develop the ability to write an algorithm and design a flowchart for solution of a particular problem.

Learning outcomes:

Children will be able to:

01. Describe an algorithm;
02. List characteristics of algorithm;
03. Analyze a problem;
04. Apply algorithm to find the best solution of a given problem;
05. Describe flowchart with its symbols;
06. Design a flowchart.

Chapter 06

Topic 04: Program Coding

Program coding (programming) involves the use of a computer programming language to write a series of instructions (algorithms) called a computer program that the computer can interpret and carry out. All operations performed by a computer are controlled by computer programs. Introduction of program coding (programming) can be explained by using any programming language. This Topic will be developing children's ability to write, compile and execute any program to solve the problem on a computer. They will also appreciate the need and importance of programming.

Learning outcomes:

Children will be able to:

01. Explain the need of programming;
02. Define the basic components of a program;
03. Explain the need of different data types;
04. Use correct syntax of components to write an error free program;
05. Compile and execute a program;
06. Use different operators.
07. Identify the flow of control in selection statements.
08. Design a program with appropriate selection statements

Chapter 07

Topic 05: App Development

An App (abbreviation for application) is a piece of software. It can run on our mobile phone, computer, internet or any other electronic device. There are many types of Apps used for different purposes. An App can be developed using any free app development software. This topic will introduce and enable children to understand the different apps, how they work and their uses.

Learning outcomes:

Children will be able to:

01. Identify different types of apps;
02. List uses of apps;
03. Classify apps;
04. Design and develop an app.

Chapter 08

Topic 06: Networks

This topic focuses on enabling children to know about a Computer Network and its components. They will understand that it consists of a large number of computers connected to each other so that they can exchange data and share resources and that every network has a topology, i.e., physical layout of communication links. They will also know more about the Internet –that it is a world-wide system for interconnecting smaller networks and ‘cloud computing’.

Learning outcomes:

Children will be able to:

01. Define a network and its components,
02. Differentiate between types of network.
03. Explain the ways in which data moves over the network.
04. Explain Internet terms.
05. Discuss the need of protocols in networking.
06. Summarize the characteristics and advantages of cloud computing.
07. Use cloud computing to store, share and present data/ information

Chapter 01

CURRICULUM BASED YEAR PLAN

<u>Date</u>	<u>Lessons</u>
June 2022	Chapter 1

October 2022	Spreadsheet
December 2022	Chapter 6
January 2023	Chapter 7
February 2022	Chapter 8

CURRICULUM BASED MARK DIVISION

Exam	Marks	Lesson(s)	Mark Division
First Mid Term	25	Chapter 1	25
First Terminal	40	<ul style="list-style-type: none"> ➤ Chapter 1 ➤ MS Access 	25 15
Second Mid Term	25	<ul style="list-style-type: none"> ➤ MS Access 	25
Second Terminal	80	<ul style="list-style-type: none"> ➤ MS Access ➤ Spreadsheet ➤ Chapter 6 	32 35 13
Final	80	<ul style="list-style-type: none"> ➤ Chapter 1 ➤ MS Access ➤ Spreadsheet ➤ Chapter 6 ➤ Chapter 7 ➤ Chapter 8 	05 20 30 05 10 10