NAVY CHILDREN SCHOOL, GOA

COMPUTER SPLIT UP SYLLABUS 2024 - 25 (Class VIII)

Month	Chapter	Contents	Objectives	Activities
APRIL/MAY	1. Operating System and Graphical User Interface **No. of Periods 4**	- Computer system - Software Concept - Operating system - Need of an Operating System - Functions of an Operating System - Types of Operating System - Graphical User Interface (GUI) - Advantages of GUI	**Students will be able to:** - differentiate between CUI and GUI in terms of multitasking - list the features, functions and advantages of GUI	**Lab Activity:** - Create a presentation on operating system. Include slides on uses of operating system, Functions of operating system, different OS and Windows.

JUNE/JULY	**2. Spreadsheet – Functions and Charts** **No. of Periods 4**	- Different parts of MS excel - Entering data in a spreadsheet - Types of data (number, string and formula) - Operators in MS excel - Cell references - Functions - Function wizard - Charts in MS excel - Formatting charts - Formatting data series - Sorting data - Filtering data - Advanced filter - Goal seek - Printing a worksheet	**Students will be able to:** - edit and format a worksheet - define cell range and apply formula - differentiate between different cell referencing - edit a sheet from sheet tab - formulate a function and create a chart	**Lab Activity:** - Explore the formulas in MS Excel. List down all the formulas which we generally use in day to day in life. Take any one formula and write all the steps to use that formula. In your computer lab use this formula for at least two problems.
	3. Algorithms and Flowcharts **No. of Periods 3**	- Algorithm - Characteristics of a good Algorithm - Rules for writing an algorithm - Uses of an Algorithm - Flowcharts - Symbols used in Flowcharts - Uses of Flowcharts	**Students will be able to:** - describe an algorithm - list characteristics of algorithm - analyse a problem - apply algorithm to find the best solution of a given problem - describe flowchart with its symbols - design a flowchart	**Lab Activity:** - Make a flowchart to reach in the computer room from your classroom - Make a flowchart to arrange any five numbers in an ascending order
AUGUST	**4. Programming Languages** **No. of Periods 4**	- Computer program and computer programming - Uses of Computer Programs - Development of Python - Programming Basics in Python	**Students will be able to:** - explain the need of programming - define the basic components of a program - use different modes of working in Python IDLE - understand the fundamentals of Python Programming - use different operators in Python - write programs in Python	**Lab Activity:** Write programs in Python to do the following: - To input a number and check if it is a prime number - palindrome - strong number - To input a number and print its factors - reverse - factorial - To print tables of all numbers from 1 to 10 - print sum of the series of numbers

			Students will be able to:	Lab Activity:
SEPTEMBER/ OCTOBER	**5. App Development** **No. of Periods 6**	- Introduction to Apps - Working of Apps - Uses of some common apps - Types of Apps - Development of simple apps	**Students will be able to:** - identify different types of apps - list uses of apps - classify apps - design and develop an app	**Lab Activity:** - Collect the screenshots of all the processes which are used to install an application in android phones or iphones. In your project book write the process and paste these pictures accordingly.
NOVEMBER	**6. Computer Networks** **No. of Periods 4**	- Introduction - Uses of computer networks - Elementary terminology of networking - Types of computer networks - Topology - Communication devices of computer - Client - server concept - Network protocols	**Students will be able to:** - define a network and its components - differentiate between types of network - explain the ways in which data moves over the network - explain Internet terms - discuss the need of protocols in networking - summarize the	**Lab Activity:** - Design a project that runs network sniffers (software tool that monitor the data following in computer) to capture traffic sent over a network connection. Also identify the protocols if is using.
DECMBER/ JANUARY	**8. GIMP** **No. of Periods 6**	- Main windows - The toolbox - Image window - Changing the size of an image - Cropping an Image - Finding info about image - Flipping an image - Rotating an Image - Enhancing Photographs - Improving Composition - Improving Colours - Adjusting Sharpness - Removing unwanted Objects	**Students will be able to:** - identify different components of GIMP - rotate, crop and flip an image in GIMP - enhance photographs in GIMP	**Lab Activity:** - In GIMP using clone tool, remove unwanted clutter (object/ scene) from a picture.
FEBRUARY	**7. Cloud Computing** **No. of Periods 4**	- Cloud and Cloud computing - History of Cloud Computing - Features of Cloud Computing - Components of cloud - Types of Clouds - Advantages of Cloud Computing - Disadvantages of Cloud Computing - Examples of Cloud Computing	**Students will be able to:** - characteristics and advantages of cloud computing - use cloud computing to store, share and present data/ information	**Lab Activity:** - Make a presentation on cloud computing including slides on Introduction, Characteristics, Types, Uses and Security. also list some website which offer cloud computing.