Teacher’s Name :- School :-

Year :- 2022 Subject :- Information & Communication Technology

Grade :- 08

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| **Competency** | **Competency Level** | **Content** | **Learning Outcomes** | **Duration / Periods** | **Expected Date** | **Taught Date** | **Others** |
| 1. Investigates how instructions and data are represented in the computer | 1.1. Converts decimal numbers to binary numbers and vice versa | * Introduction to Number Systems * Decimal and Binary Number System * Conversion from Decimal to Binary * Conversion from Binary to Decimal | i. Describes Number systems with 10 and 2 as the base  ii. Converts decimal integers to binary and vice versa | 03 |  |  |  |
|  | 1.2. Appreciates the working logic (binary concept) in computers | * Method of data representation using 0 and 1 * Binary data flow among the computer components | i. Represents positive decimal integers in binary  ii. Explains the method of displaying a character (Alpha numeric symbolic)/ image on the monitor using a bitmap | 02 |  |  |  |
| 2. Uses computers efficiently and effectively with operating system | 2.1. Uses Operating System for configuring and applying settings | * Regional settings: Date, Time, Currency, Number format * File properties * File Search | i. Makes settings: Date, Time, Currency, Number format  ii. Sets File properties: read-only, hidden, location, size  iii. Searches files with extension | 02 |  |  |  |
|  | 2.2. Explores basic troubleshooting of computers and maintenance procedures (hardware and software ) | * Troubleshooting of simple computer faults * Hardware issues (keyboard, mouse, power cable, network cable, VGA cable) * Sound output issues (speaker connectivity, check the volume) * Ports connectivity (PS/2, USB, Micro USB, VGA, HDMI, Parallel, RJ45, Memory Card Reader) * Troubleshooting and resolving of relevant computer software issues * Corrupt software * Blank desktop | i. Troubleshoots and resolves relevant hardware issues  ii. Troubleshoots and resolves relevant software problems | 02 |  |  |  |
| 3. Use of word-processing software in day today activities | 3.1.Uses basic functions of word processing software in creating a document | * Create, open, save and close a document * Formatting of Text * Inserting files/objects (text, picture, shapes, clip art, word art etc.) * Inserting a table * Spelling and grammar check * Lists | i. Creates a formatted document using word processing software | 06 |  |  |  |
| 4. Uses flow chart to solve simple problems with sequence, selection and develop programs (Using Scratch) | 4.1. Analyzes the problem | * Identification of input, process and output steps * Identification of applications created for mobile and smart devices * Documentation of solution using flow charts | i. Analyzes the problems in simple day to day life  ii. Explains the problem with a block diagram  iii. Describes applications in mobile and smart devices | 02 |  |  |  |
|  | 4.2. Uses control structures to develop simple programs | * Introduction to simple algorithm and control structures of Selections * Developing simple programs (Sequence and Selection) using visual supports of programming language (using an Interface) | i. Describes control structures (selection only)  ii. Applies control structures to solve simple day to day problems | 05 |  |  |  |
| 5. Uses a software package for physical computing to implement programming logic | 5.1.Uses a simple hardware device to implement physical computing | * Components of physical computing device * Controllable devices * Turning on/off LEDs * Design LED patterns with simple programs | i. Writes a program to operate external circuits using two logic levels (yes/no, on/off)  ii. Implements programs on physical devices. Example: Turning On/Off the LEDs with passing values | 05 |  |  |  |
| 6. Explores educational information using the Internet | 6.1 Searches information on the Internet | * Search Engines: Google, Yahoo etc. * Educational browsers | i. Identifies Search Engines  ii. Searches information using the Internet | 01 |  |  |  |
|  | 6.2. Creates websites with advanced features | * Tags, Elements, Attributes, Text formatting etc. * Advanced features in hyperlinks | i. Designs websites as per specifications  ii. Develops websites as per design | 02 |  |  |  |

Date :- ……………………........ ……………………........ Signature of the Principal