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