CLASS -VII	CODING	2024-25
Date	**Topic**	**Ex./ Demo./Practicals**
Important links	**Student HandBook-** https://cbseacademic.nic.in/web_material/codeingDS/classVIII_Coding_Student_Handbook.pdf	**Project Booklet for Student -** **https://www.microsoft.com/en-us/makecode** **https://cbseacademic.nic.in/web_material/codeingDS/classVII_Coding_Project_Booklet.pdf**
April	**Recaptulation of CODING**	
	What exactly is coding?	Practicals Based on Demo
	What is a programming language	
	VARIABLES IN REAL LIFE	
No.of working days-22	1. What are Variables?	To create and Initialize a varaiable
	2. Naming Variables	
	3. Data Types in Variables	
	4. Performing operations on Variables	
	What is Variable Initialization?	
	Data Types in programming	
	Relational operators	
	Greater than	
	Equal to	
	Less than	
	Greater than or equal to	
	Less than or equal to	
	Not equal to	
May	Data Types in programming 1. Integer 2. Floating-Point Number 3. String 4. Boolean How do we validate user input in programming?	Practicals Based on Demo
No.of working days- 18	Math Operations in Programming Addition Subtraction Multiplication Division Modulus	Activity: Mathematical operation using block coding
July	**SEQUENCING WITH BLOCK CODING**	Activity Drawing Rectangle
No.of working days-25	What is Sequencing?	
	Examples of Sequence, Selection and Iteration	https://minecraft.makecode.com/
	What is a Bug?	
August	**Loops using block coding**	Fun Activity: Chase the Apple
No.of working days-23	Introduction to Loops	
	Increment Loops	
	Different types of loops	Practicals Based on Demo
	While loop	
	For loop	

September	Apply Loops and Conditionals with sequencing	
No.of working days-23	Is there a better way to apply sequencing?	Activity: Distributing Birthday Sweets
	Better way to create a square	(https://scratch.mit.edu/)
	Introduction of Code.org	Create a rectangle of length 5 and height 3 using a loop (repeat block) in Minecraft.
October	FUN WITH FUNCTIONS	Activity - 1. Calling a function which has no parameters 2. Calling a function with a single parameter
No.of working days-20	Introduction What exactly are functions? Examples of Functions in Arcade	
November	FUN WITH FUNCTIONS	Activity -. Calling function to print statements
No.of working days-23	Advantages of using functions	
	How to reduce redundancy using functions	Activity - .To display a cube of numbers
	Advantages of using Functions What are different Function Parameters?	Activity - Sorting- Arranging the books
December	FUN WITH FUNCTIONS	Activty- To calculate the area of a circle
No.of working days-24	Can Function return a value?	
	What is an event?	Activity- Return Values from Functions
	What are Event Handlers?	
	UNDERSTANDING ARRAYS & COLLECTIONS	Example 1: Is 36 a perfect square?
	What arte collections? What are arrays?	Activity – Algorithm for a perfect square
January	UNDERSTANDING ARRAYS & COLLECTIONS	Activity - To create an array and calculate its length
No.of working days-13	How can we iterate over collections?	
	Modifying Collections	Activity- To print the first element of Array
	Adding Elements During Iteration	Activity - To calculate the sum of elements in an array
	Removing Elements During Iteration	
February		
No.of working days-22	Submission and assessment of the projects	

Note: The students will be assessed on the basis of the classroom performance, task assigned as Home Assignments / Holiday Homework / Project.