

Date	Topic	Ex./ Demo./Practicals
Important links	Student HandBook- https://cbseacademic.nic.in/web_material/codingDS/classViii_Coding_Student_Handbook.pdf	Project Booklet for Student - https://www.microsoft.com/en-us/makecode https://cbseacademic.nic.in/web_material/codeingDS/classVIII_Coding_Project_Booklet.pdf
April	Variables and Datatypes	
No.of working days- 24	What are Variables?	Practical based on all mentioned operators Activity1 - Can you create a Triangle?
	Naming Variables	
	Data Types in Variables	
	Performing operations on Variables	
	What is Variable Initialization?	
	Data Types in programming	
	1. Integer 2. Floating-Point Number 3. String	
	Math Operations in Programming	
Logical Operators		
Relational operators		
Precedence of logical operators		
May	Conditional in Details	
No.of working days 6	Types of control structures	Activity- Create a programe in Make code to check if a number is Odd or Even?
	Understanding of IF-Else ans Else- If Statements	
	Flow chart - to check no. is Odd or Even using if else	
July	Get Creative with Loops	
No.of working days- 26	What are the loops	Activity - Divisibility of a number by 7 or9 or by both
	Different types of loops	Activity: Create a staircase using for and while loops
	The While Loop	
	The For Loop	Activity: Raining pigs and pandas
	Nested loops	
Exit Criteria		
August	Fun with Functions	
No.of working days- 21	Introduction	Activity - 1. Calling a function which has no parameters
	What exactly are functions?	
	Examples of Functions in Arcade	
	Advantages of using functions	Activity -2. Calling a function with a single parameter
	How to reduce redundancy using functions	
	Advantages of using Functions	
What are different Function Parameters?		

September	Functions in depth	Activity - .To display a cube of numbers
No.of working days- 24	Function Parameters	Activity: Calculating Volume of Cuboid
	Returning value from a function	Activity- Return Values from Functions
	Calling function to print statements	
October	UNDERSTANDING ARRAYS	Example 1: Is 36 a perfect square?
No.of working days- 21	What are collections? What are arrays?	Activity – Algorithm for a perfect square
November	UNDERSTANDING ARRAYS	Activity - To create an array and calculate its length
No.of working days- 21	How can we iterate over collections?	Activity- To print the first element of Array
	Modifying Collections	
	Adding Elements During Iteration	
	Removing Elements During Iteration	
December	Programming with arrays	
No.of working days- 24	Playing with Colors	Activity - To calculate the sum of elements in an array
	Array declaration	Activity - Use of append function
	To add an item in an array	
	Working on array using for loop	
January	Programming with arrays	Activity: Building stairs
No.of working days- 17	Sorting an Array	Activity- An array in ascending order using bubble sort
	Searching in an array	
February	Submission and assessment of the projects	
No.of working days- -22		

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