

| Date | Topic | Ex./ Demo./Practicals |
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| 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 | |
| No.of working days-24 | What exactly is coding? | Practicals Based on Demo |
| | What is a programming language | |
| | VARIABLES IN REAL LIFE | |
| | 1. What are Variables? | To create and Initialize a variable |
| | 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-6 | 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-26 | What is Sequencing? | https://minecraft.makecode.com/ |
| | Examples of Sequence, Selection and Iteration | |
| | What is a Bug? | |
| August | Loops using block coding | |
| No.of working days-21 | Introduction to Loops | Fun Activity: Chase the Apple |
| | Increment Loops | Practicals Based on Demo |
| | Different types of loops | |
| | While loop | |
| | For loop | |
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| September | Apply Loops and Conditionals with sequencing | |
| No.of working days-24 | 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 | |
| No.of working days-21 | Introduction What exactly are functions? Examples of Functions in Arcade | Activity - 1. Calling a function which has no parameters 2. Calling a function with a single parameter |
| | | |
| November | FUN WITH FUNCTIONS | Activity -. Calling function to print statements |
| No.of working days-21 | Advantages of using functions | Activity - .To display a cube of numbers |
| | How to reduce redundancy using functions | |
| | 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? | Activity- Return Values from Functions |
| | What is an event? | |
| | 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-17 | How can we iterate over collections? | Activity- To print the first element of Array |
| | Modifying Collections | |
| | 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. | | |