

KAUR'S CODING ACADEMY

Creative Coding, Web and Games - Grades 6 to 8

Module-wise Teacher Syllabus

A practical middle-school track that moves from creative coding to real HTML, CSS, JavaScript, Python basics and game projects.

Course	Audience	Suggested Duration	Final Output
Creative Coding, Web and Games - Grades 6 to 8	Grades 6 to 8	6 to 9 months / online project-based batch	Responsive website, interactive JavaScript app, Python mini project and browser game

Teacher Note

Keep classes practical and visual. Allow students to customize websites and games so they feel ownership of their work.

Learning Outcomes

- Build web pages using HTML and style them with CSS.
- Create interactive browser projects using JavaScript, DOM and events.
- Understand Python basics, functions, loops and collections.
- Build games with movement, score, timer, collision and restart logic.
- Complete a final creative project with presentation.

Document Use

This PDF is made for teachers to plan classes module by module. Each module includes topic names, teaching points, class practice and revision work.

Complete Module Index

The table below gives a quick view of what will be taught in this course.

Module	Topic Name	Main Things Teacher Will Cover
1	Coding Mindset and Developer Tools	How websites, apps and games are created, VS Code or online editor setup, Folder structure for projects, Browser preview and developer tools, and more
2	HTML Foundations	HTML document structure, Doctype, html, head and body, Headings, paragraphs and line breaks, Images and links, and more
3	HTML Tables and Forms	Table, tr, th and td, Form, input and textarea, Radio, checkbox, select and button, Required fields and simple validation, and more
4	CSS Styling Basics	Inline, internal and external CSS, Selectors, class and id, Color, background and fonts, Margin, padding and border, and more
5	Modern Layouts and Responsive Design	Box model recap, Display property, Flexbox layout, CSS Grid basics, and more
6	JavaScript Fundamentals	Purpose of JavaScript, Variables and data types, Operators and expressions, Template literals, and more
7	Conditions, Loops and Functions	If, else and else-if, Comparison and logical operators, For and while loops, Functions with parameters, and more
8	Arrays, Objects and Data Handling	Arrays and indexes, Array methods, Objects and properties, JSON-style data, and more
9	DOM and Events	Selecting elements, Changing text and styles, Click, keyboard and mouse events, Creating elements dynamically, and more
10	Forms, Validation and Local Storage	Reading form values, Required validation, Email and number checks, Error messages, and more
11	Browser Game Logic	Game loop idea, Player movement, Score and timer, Collision rule, and more
12	Python Foundations	Python setup or online editor, Print, variables and input, Numbers and strings, Conditions and loops, and more
13	Python Collections and Mini Projects	Lists and tuples, String methods, Slicing, File reading basics, and more
14	Project Sprint - Website + App/Game	Project idea selection, Wireframe and feature list, Task breakdown, Coding milestones, and more
15	Final Presentation and Review	Project polishing, README-style explanation, Demo flow, Common questions, and more

Detailed Module-wise Teaching Plan

Teachers should first explain the concept in simple language, then demonstrate code, then allow students to practice and customize the output.

Module 1: Coding Mindset and Developer Tools

Topics to be Covered	What Teacher Will Explain / Demonstrate
- How websites, apps and games are created - VS Code or online editor setup - Folder structure for projects - Browser preview and developer tools - Debugging habits and class workflow	- Explain how code becomes visible output - Show file organization for web projects - Demonstrate how to read simple error messages
Class Practice / Student Output	Homework / Revision
- Create first project folder - Open editor and browser preview - Write and run a simple HTML file	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 2: HTML Foundations

Topics to be Covered	What Teacher Will Explain / Demonstrate
- HTML document structure - Doctype, html, head and body - Headings, paragraphs and line breaks - Images and links - Lists and comments	- Explain HTML as page structure - Show tag opening/closing clearly - Demonstrate adding text, image and link to one page
Class Practice / Student Output	Homework / Revision
- Build a personal profile page - Add favorite image and links - Create list of hobbies or skills	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 3: HTML Tables and Forms

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Table, tr, th and td - Form, input and textarea - Radio, checkbox, select and button - Required fields and simple validation - Collecting data on submit	- Explain where tables and forms are used in real websites - Demonstrate a timetable and contact form - Show correct labels and placeholders
Class Practice / Student Output	Homework / Revision
- Create a school timetable - Create a contact form - Combine both into a website page	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 4: CSS Styling Basics

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Inline, internal and external CSS - Selectors, class and id - Color, background and fonts - Margin, padding and border - Basic hover effects	- Explain CSS as the design layer - Show how selectors target HTML elements - Demonstrate before/after styling of the same page
Class Practice / Student Output	Homework / Revision
- Style the profile page - Change fonts and colors - Add card style to sections	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 5: Modern Layouts and Responsive Design

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Box model recap - Display property - Flexbox layout - CSS Grid basics - Media queries - Mobile-first layout	- Explain responsive design using phone and laptop examples - Demonstrate Flexbox cards and navigation - Show how media query changes layout
Class Practice / Student Output	Homework / Revision
- Build a responsive landing page - Create a card grid - Test page on different screen sizes	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 6: JavaScript Fundamentals

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Purpose of JavaScript - Variables and data types - Operators and expressions - Template literals - Console and comments	- Explain JavaScript as the behavior layer - Show console output and browser alerts - Demonstrate changing values with variables
Class Practice / Student Output	Homework / Revision
- Create a bill calculator - Print student profile data - Use variables for dynamic messages	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 7: Conditions, Loops and Functions

Topics to be Covered	What Teacher Will Explain / Demonstrate
- If, else and else-if - Comparison and logical operators - For and while loops - Functions with parameters - Return values	- Explain decisions through grade checking examples - Show loops with repeated actions - Demonstrate reusable functions
Class Practice / Student Output	Homework / Revision
- Build a marks grade checker - Create number pattern tasks - Write reusable calculator functions	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 8: Arrays, Objects and Data Handling

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Arrays and indexes - Array methods - Objects and properties - JSON-style data - Looping through data	- Explain arrays as lists and objects as records - Show product list data - Demonstrate rendering data dynamically
Class Practice / Student Output	Homework / Revision
- Create a student list - Create product cards from an array - Add or remove data items	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 9: DOM and Events

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Selecting elements - Changing text and styles - Click, keyboard and mouse events - Creating elements dynamically - Event listener functions	- Explain DOM as the web page tree - Show button click changing page content - Demonstrate keyboard control for simple games
Class Practice / Student Output	Homework / Revision
- Build a random quote generator - Create an interactive counter - Make a small keyboard-controlled activity	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 10: Forms, Validation and Local Storage

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Reading form values - Required validation - Email and number checks - Error messages - localStorage set/get/remove	- Explain why validation is important - Show saving data in browser storage - Demonstrate a simple to-do app
Class Practice / Student Output	Homework / Revision
- Build a to-do list - Save tasks in localStorage - Add delete and clear buttons	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 11: Browser Game Logic

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Game loop idea - Player movement - Score and timer - Collision rule - Win/lose conditions - Restart button	- Explain game rules as conditions and events - Demonstrate movement and score update - Guide students to test edge cases
Class Practice / Student Output	Homework / Revision
- Build a memory game, typing game or catch game - Add score and timer - Improve UI and instructions	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 12: Python Foundations

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Python setup or online editor - Print, variables and input - Numbers and strings - Conditions and loops - Simple functions	- Explain difference between browser JavaScript and Python scripts - Show input/output in terminal - Demonstrate a number guessing game
Class Practice / Student Output	Homework / Revision
- Create a calculator - Create a guessing game - Create a grade checker in Python	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 13: Python Collections and Mini Projects

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Lists and tuples - String methods - Slicing - File reading basics - Functions for project organization	- Explain how lists store many values - Demonstrate word counter logic - Show how functions make code clean
Class Practice / Student Output	Homework / Revision
- Build a word counter - Create a contact list - Save simple data to a text file	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 14: Project Sprint - Website + App/Game

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Project idea selection - Wireframe and feature list - Task breakdown - Coding milestones - Testing and bug fixing	- Teach students how to plan before coding - Guide small feature-by-feature development - Review code and give improvement suggestions
Class Practice / Student Output	Homework / Revision
- Start a final project - Complete main UI and logic - Prepare screenshots and feature list	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Module 15: Final Presentation and Review

Topics to be Covered	What Teacher Will Explain / Demonstrate
- Project polishing - README-style explanation - Demo flow - Common questions - Feedback implementation	- Help students present problem, solution and features - Ask concept-based questions from the project - Show how to improve project after feedback
Class Practice / Student Output	Homework / Revision
- Present final website/app/game - Submit project folder - Complete revision checklist	- Revise the class notes and complete a small improvement in the class project. - Write down two doubts or two new things learned in the module.

Final Review and Certification Checklist

- Student can explain the main concepts in simple words.
- Student has completed the required practice tasks and mini projects.
- Student can run the project, fix common errors and present the work confidently.
- For advanced courses, student should submit GitHub repository, screenshots and deployment link where possible.