Lesson Plan

Instructor Name: _____
Class: JavaScript Basics
Date: _____
Duration: 3.5 Hours

LESSON OUTCOME:

By the end of this lesson, students will be able to:

- Understand what JavaScript is and how it works with HTML.
- Declare and use variables (`let`, `const`, `var`) in programs.
- Work with arrays to store and manipulate multiple values.

LESSON STRUCTURE

Time	Introduction (Set)	Teaching Approaches
10 mins	1. Greetings 2. Introduce the class. 3. Recap the last lesson (e.g., HTML basics). 4. Ask if anyone has heard about JavaScript or used it before. 5. Take questions from students.	Use whiteboard or projector to show examples. Encourage discussion.

Time	Main Content	Instructor Activity	Student Activity	Teaching Approaches
5 mins	**Chapter 1: Introduction to JavaScript** - What is JavaScript? - Why use JavaScript? - Where does JavaScript run?	- Open a browser and show a simple webpage with interactivity (e.g., alert box). - Explain that JavaScript makes websites interactive. - Mention where JavaScript is placed in an HTML file.	- Observe instructor's demo. - Ask questions.	Instructor-led demo followed by student observation.

10 mins	**Chapter 2: Variables** - What are variables? - Declaring variables: `var`, `let`, `const` - Variable naming rules	- Create a new HTML file named `lesson1.html`. - Show how to declare and assign values to variables. - Demonstrate logging variable values to the console. - Give real-life examples like storing a user's name or age.	- Students create `lesson1.html`. - Follow along as code is typed and tested. - Practice declaring variables and logging them to the console.	Practical coding session with instructor support.
45 mins	**Chapter 3: Arrays** - What is an array? - How to declare and access array elements - Array methods: `.push()`, `.pop()`, `.length` - Row span and column span analogy using arrays	- Open a new file named `lesson2.html`. - Demonstrate creating an array of fruits or numbers. - Show how to add/remove items using `.push()` and `.pop()`. - Use analogies from HTML tables (rows/columns) to explain array indexing. - Walk students through practical examples step-by-step.	- Students create `lesson2.html`. - Follow along with instructor as they write array code. - Run the program and observe output in the browser console. - Try modifying arrays by adding or removing elements.	Instructor-led coding with hands-on student practice.
45 mins	**Practical Session & Review** - Build a small app that uses variables and arrays together. - Example: Store student names in an array and display the count.	- Guide students in building a mini-project using concepts learned. - Provide starter code and let students complete it. - Help students debug issues and answer questions.	- Students work independently or in pairs. - Complete the mini-project. - Test their code in the browser.	Collaborative learning and guided practice.

Time	Conclusion	Teaching Approaches
10 mins	- Recap what was learned today: JavaScript basics, variables, arrays. - Discuss where these concepts can be applied (e.g.,	Use whiteboard or slides to summarize key points.

	web forms, games, dynamic content). - Assign homework or review questions.	Encourage students to ask final questions.

Assessment (30 mins):

Students will complete a short assignment to demonstrate understanding:

- Create a webpage that:
  - Uses at least two variables (`let`, `const`)
  - Stores a list of products in an array
  - Displays the number of items in the array
  - Adds/removes items using `.push()` and `.pop()`

Save the file as `assignment_js.html`.

Reflection:

Signed: _____

Program Director

RESOURCES:

- Computers
- Projector
- Internet access
- Text editor (e.g., VS Code)
- Sample files: `lesson1.html`, `lesson2.html`, `assignment_js.html`