**🌱 Digital Excellence Program – Class Plan  
 Building a Digital Clock – Selecting & Manipulating DOM Elements**

**⏱ Time & Activity Breakdown**

| **Time Slot** | **Activity** | **Description** |
| --- | --- | --- |
| First 5 minutes | Warm-up & Reflection | Ask: “What’s the most important thing displayed on your phone screen 24/7?”  Use this to introduce clocks as real-time DOM projects driven by JavaScript. |
| 60 minutes | Core Concept Explanation – I | Topic: DOM Manipulation for a Real-Time Clock  Subtopics:  ▫ Selecting container elements for time and date  ▫ Creating and injecting DOM elements using createElement and appendChild  ▫ Styling with .classList and .style  ▫ setInterval for live updates  ▫ Using Date object to get time and date values |
| 10 minutes | Interactive Activity | Live Setup Practice  • Students follow you in setting up the HTML structure: a <div> for the clock, and basic CSS classes.  • Let them select and style DOM elements. |
| 45 minutes | Core Concept Explanation – II | Topic: Time Logic & Format Switching  Subtopics:  ▫ Formatting time with leading zeros  ▫ Toggling 12hr/24hr using a button and DOM event listeners  ▫ Updating DOM content using textContent every second  ▫ Building responsive and accessible UI |
| 15–30 minutes | Doubt Solving Session – I | Students implement live updates and format toggling. Tasks include:  • Display HH:MM:SS with live update  • Add current date display  • Button to toggle formats  Mentor assists with logic, selection, and bug fixing. |
| 5 minutes | Class Wrap-up | Recap what was built so far:  • Clock container built and styled  • Time and date injected dynamically  • Format toggle wired up  Ask: “What part of this project helped you understand the DOM better?” |

📘 **References & Notes**

* [JavaScript Date Object – MDN](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date)
* [setInterval() – MDN](https://developer.mozilla.org/en-US/docs/Web/API/setInterval)

✅ 5 **Checklist Questions to Assess Understanding**

1. How can you select an element and change its content every second?
2. What method allows you to run a function repeatedly with a delay?
3. How do you format a time string to always show 2 digits?
4. What event is used to detect a button click in the DOM?
5. How does textContent differ from innerHTML in a live clock project?