

Lesson Plan: Rock Paper Scissors Game Development

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School: Norbridge House Prep School Regent's Park After School Coding Club

Age Group: Students under 10 years old

Lesson Overview

The goal of this lesson is to introduce students to basic coding concepts using a fun and interactive Rock Paper Scissors game. By the end of this lesson, students will have a basic understanding of how coding can be used to create a simple game.

Learning Objectives

- Understand basic HTML, CSS, and JavaScript concepts.
- Learn how to structure a webpage.
- Recognize how JavaScript can add interactivity to web pages.
- Create a simple game interface.
- Use logic to determine game outcomes (Win, Lose, Draw).

Materials

- Computers with access to a code editor (e.g., VS Code, Notepad++).
- Browser to test the game (Chrome, Firefox).
- Pre-prepared game assets (Rock, Paper, Scissors images).

Time: 60 Minutes

Lesson Structure

Introduction (10 minutes)

- Teacher-led Discussion:
 - Introduce the idea of coding.
 - Ask students if they have played Rock Paper Scissors before.
 - Explain how the rules can be written as code.
 - Discuss the goal for the session.

Step-by-Step Coding Session (40 minutes)

1. HTML Introduction (10 minutes)

- Teacher-led demonstration to create a basic webpage structure.
- Activity: Guide students to create the basic structure for the game.

2. CSS Styling (10 minutes)

- Teacher-led demonstration to add colors and arrange items using CSS.
- Activity: Help students style their game.

3. JavaScript Logic (20 minutes)

- Teacher-led demonstration to add game logic using JavaScript.
- Activity: Guide students to create basic game logic.

Game Customization and Exploration (10 minutes)

- Teacher-led exploration: Allow students to customize their game and test it in the browser.

Wrap-Up & Reflection (10 minutes)

- Teacher Discussion:
 - Ask students what they enjoyed most.
 - Discuss how coding can be expanded for more games and websites.

Extension Ideas

- Add a score counter using JavaScript.
- Customize the game with different themes.