MY INTERACTIVE LEARNING WORLD

Objective

Create an interactive digital learning experience using Excel calculations, MakeCode Arcade block coding, and an animated PowerPoint presentation to explain ideas, interactions, and simple logic clearly.

Session 1: Organising and Presenting Information Using Excel

Activities

1. **Creating a Learning Data Sheet**

   ◆ Task
   - ✦ Students will create an Excel sheet to store simple learning data such as topic names, scores, attempts, or completion status.

   ◆ Skills Practised
   - ✦ Entering formulas in different ways
   - ✦ Understanding cell ranges
   - ✦ Using cell referencing
   - ✦ Applying basic functions
   - ✦ Customising worksheet tabs

2. **Visualising Learning Progress Using Charts**

   ◆ Task
   - ✦ Students will create charts to show progress or comparison, such as completed vs pending topics or scores.

   ◆ Skills Practised
   - ✦ Creating charts in Excel
   - ✦ Understanding visual representation of data

Outcome for Session 1

<> An organised Excel worksheet with formulas.

<> Charts showing learning progress visually.

Session 2: Creating an Interactive Story Using MakeCode Arcade

Activities

1. **Planning the Story Using Coding Concepts**

   <> **Task**

      ✦ Students will discuss what coding is and where it is used. They will write a short pseudocode for an interactive story with characters and events.

   <> **Skills Practised**

      ✦ Understanding coding concepts

      ✦ Writing pseudocode

      ✦ Identifying events and possible bugs

2. **Building the Interactive Story in MakeCode Arcade**

   <> **Task**

      ✦ Students will create a simple interactive story using sprites, backgrounds, and block coding. Characters will talk using a conversation between two sprites and react to events.

   <> **Skills Practised**

      ✦ Exploring MakeCode Arcade window components

      ✦ Adding sprites and changing backgrounds

      ✦ Using variables, math blocks, and logic blocks

      ✦ Working with events and commonly used blocks

Outcome for Session 2

<> An interactive story created using MakeCode Arcade.

<> Clear use of sprites, events, and logic.

Session 3: Showcasing the Project Through an Interactive Presentation

Activities

1. **Creating an Animated Presentation in PowerPoint**

    <> Task

    - ✦ Students will create a PowerPoint presentation explaining their Excel work and MakeCode Arcade project. They will include screenshots, short explanations, and flow of ideas.

    <> Skills Practised

    - ✦ Using slide views
    - ✦ Applying slide transitions and animations
    - ✦ Adding media clips and action buttons

2. **Importing Data and Making Slides Interactive**

    <> Task

    - ✦ Students will import charts from Excel and link slides using action buttons for navigation.

    <> Skills Practised

    - ✦ Importing data from other applications
    - ✦ Creating interactive navigation

Outcome for Session 3

- <> A visually rich and interactive PowerPoint presentation.
- <> Clear explanation of the complete learning project.

Final Deliverables

Tick (✓) the box if submitted:

- <> Excel worksheet with formulas, functions, and charts.
- <> Interactive story created using MakeCode Arcade.
- <> Animated and interactive PowerPoint presentation.

This project combines data organisation, creative block coding, and animated presentations to build an engaging digital learning experience using simple logic and interaction.