Microsoft

DreamSpace

Post Video Resource Episode 4

Creative design challenge - App Development

Curricular Alignment

Subject	Relevant Learning Outcomes	Key Skills
Computer Science (Leaving Cert)	solving strategies in software design. - Develop an awareness of user experience (UX) and interface design	(Designing an innovative digital solution) - Managing Information &
Business Studies	entrepreneurship and innovation. - Understand how technology solutions address market needs.	structured app proposal) - Being Enterprising (Identifying and solving real-world problems
Digital Technology (Junior Cycle)	a real-world problem. - Understand the importance of user-centered design.	app idea clearly) - Being Creative (Developing unique and practical app

Learning Intentions

By the end of this activity, students will:

- Understand the process of designing an app, from problem identification to solution creation.
- Learn about user experience (UX) and interface (UI) design principles.
- Develop critical thinking and problem-solving skills through digital product development.
- Present their app idea using persuasive communication and visuals.

Success Criteria

Students will demonstrate success by:

- Identifying a clear problem that their app aims to solve.
- Designing a logical app structure, including key features and user interactions.
- Creating a visual prototype or wireframe (hand-drawn or digital).
- Explaining their app's impact on users and society in a structured presentation.

Activity Breakdown

Step 1: Identifying a Problem (10-15 minutes)

- Class Brainstorming Session:
  - What are common challenges that people face in daily life?
  - How can an app help solve these issues?
  - Encourage students to think locally and globally (e.g., school-based, environmental, health, social issues).
- Example Problem Areas:
  - Managing screen time and digital well-being
  - Improving mental health awareness
  - Encouraging sustainable habits (e.g., waste reduction, energy use)
  - Supporting learning and productivity for students

Step 2: Defining the App Concept (20-30 minutes)

💡 In pairs or small groups, students define their app idea using the “5 Ws” framework:

1. What does the app do? (Purpose)
2. Who is the target user? (Audience)
3. Why is it needed? (Problem-solving)
4. Where would users interact with it? (Device compatibility)
5. When would people use it? (Practical use cases)

Students name their app and write a one-sentence pitch explaining its purpose.

📌 Example: “EcoTrack helps users track and reduce their carbon footprint through daily challenges and sustainability tips.”

Step 3: Sketching the App Prototype (30-40 minutes)

- Wireframing Exercise:
  - Students create hand-drawn or digital mockups of key screens in the app.
  - Focus Areas:
    - Home Screen (Main Features)
    - Navigation Menu
    - User Interaction (Buttons, Inputs, Notifications)
    - Settings and Customisation Options
- Tools for Digital Prototypes:
  - Canva (for UI mockups)
  - Figma (for advanced wireframes)
  - Pen & Paper (for quick sketching)

Step 4: Preparing the Presentation (20-30 minutes)

- Students structure their presentation as follows:
  a. Problem Statement: What issue does the app solve?
  b. App Overview: How does it work? (Screens, functions, features)
  c. User Experience: Who will use it and why?
  d. Future Potential: How could the app be expanded or improved?
- Presentation Formats:
  - Slide Deck (Google Slides, PowerPoint, Canva)
  - Poster with wireframe sketches
  - Live Walkthrough (if using a digital prototype tool like Figma)

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Step 5: Presenting & Peer Feedback (20-30 minutes)

- Each group presents their app in a 3-5 minute pitch.
- Classmates provide constructive feedback based on:
  - Clarity of the app's purpose
  - Creativity and originality
  - User-friendly design
  -

E*xtension Activities (Optional)*

🚀 Coding a Simple App Mockup

- If time allows, students can use Scratch (for basic logic) or MIT App Inventor to create a clickable prototype of their app.

🔍 Real-World Tech Research

- Students research a successful app (e.g., Duolingo, TikTok, Calm) and analyse its business model, impact, and user experience.