



Project No.1

This project was created by a Green Skills Teacher Ambassador as part of the EcoAI EduNetwork Initiative (EAIEN). Developed within the scope of the online course AI-Empowered Green Skills Education, it demonstrates how teachers can integrate artificial intelligence (AI) tools and sustainability competences into a meaningful, student-centered learning experience.

Designed to be implemented within a single subject or through cross-disciplinary collaboration, the project promotes green skills and artificial intelligence literacy in the classroom. It shows how AI can serve as both a teaching assistant and a catalyst for empowering students to think critically and act sustainably and preparing them to become responsible, future-ready learners.



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Reimagining Everyday Solutions



Project Description

This project engages students in a creative, interdisciplinary challenge to design an innovative eco-friendly product that responds to a real environmental issue. Throughout the process, students explore the principles of sustainable design, circular economy, and responsible innovation, learning how to transform ideas into practical, ethical, and visually appealing solutions. Guided by their teacher, they identify a problem related to waste, energy use, or overconsumption and design a prototype that minimizes environmental impact while improving daily life. Using AI-assisted design and communication tools, students create concept sketches, product posters, and promotional slogans to communicate the value and sustainability of their inventions. They also reflect on materials, production methods, and life-cycle stages through a simplified LCA (Life-Cycle Assessment) approach. The project culminates in a school-wide event, the “Green Innovation Fair,” where teams present their ideas through short pitches and display their AI-generated visuals and prototypes. The activity nurtures creativity, collaboration, and systems thinking, while showing students how digital innovation can support sustainability goals in both education and society.



Objectives

- Identify a real environmental problem that can be addressed through sustainable product design.
- Apply principles of eco-design such as durability, reusability, and circular material flow.
- Conduct a simplified life-cycle analysis to assess materials, energy, and end-of-life impact.
- Demonstrate teamwork, creative problem-solving, and responsible decision-making throughout the process.

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Related School Subjects



STEM, Design & Technology, Environmental Science, Visual Arts, ICT.



Green Skills

Systems thinking, creativity, innovation, digital literacy, collaboration, sustainable product design, environmental responsibility, and circular economy awareness.



AI Tools

ChatGPT (idea development, pitch writing, sustainability reflections), Adobe Firefly or DALL·E (concept sketches and visuals), Canva (poster and slogan design), and Sheets Copilot (life-cycle overview and data visualization).



Example Prompts

“Suggest 10 innovative eco-friendly product ideas that reduce waste in schools.”

“Create a detailed description of a solar-powered lunchbox that combines functionality and sustainability.”

“Design a short, catchy slogan for an eco-product that promotes reuse and energy efficiency.”

“Generate a professional poster layout text for a product that replaces single-use plastics with biodegradable alternatives.”

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Notes to the teacher



Stage 1: Define the Challenge

Introduce key sustainability issues and guide students to identify real-life environmental problems. Facilitate brainstorming and short research activities to help each team define a clear design challenge.

Stage 2: Design & Prototype

Use AI tools (ChatGPT, DALL·E, Firefly) to generate creative product ideas and visual sketches. Discuss material choices, eco-design principles, and circular solutions. Students develop simple prototypes or digital mock-ups of their products.

Stage 3: Communicate & Showcase

Support students in creating posters, slogans, and short presentation pitches with Canva or Lumen5. Organize a Green Innovation Fair where each team presents its eco-product, AI visuals, and sustainability story.

Tips

Encourage collaboration between science, art, and ICT teachers; include reflection moments after each stage; and remind students to document their AI prompts, design process, and sustainability considerations.