AI and the Environment

SMaiLE Project

Key Information

Target Group: 4 - 7 y.o.

Duration: 3 Weeks (30–40 min sessions)

Key Learning Goals:

1. **Scientific Understanding:** Recognise that using technology affects the planet.
2. **Digital Awareness:** Identify simple energy-saving actions (e.g., turning off devices).
3. **Critical Thinking:** Suggest ways AI/Robots can help (recycling, planting).
4. **Collaboration:** Work in pairs/groups to create and share ideas.

Learning Outcomes

By the end of the workshop, children will be able to:

KNOWLEDGE & UNDERSTANDING:

- Understand that "energy" comes from resources like water, sun, and wind.
- Recognise that computers and robots need energy to work.

SKILLS & ABILITIES:

- Work in pairs to play games and count energy points.
- Share ideas through drawing, storytelling, or role-play.
- Build models (Lego/Minecraft) to express eco-friendly ideas.

ATTITUDES & VALUES:

- Show care for the environment through small daily actions.
- Appreciate how innovation can help build a greener future.

European Dimension / Erasmus+ Connection

- **Digital & Ecological Citizenship:** Introduces young children to responsibility with digital tools.
- **Transnational Solutions:** Compares energy-saving actions across homes and countries.

- **Green Deal Objectives:** Encourages youth involvement in building a greener future via innovation.

1. Resources and Tools

- **Stories (PDFs):** "Energy Makes Things Happen", "Planet Power", "The Boy Who Harnessed the Wind".
- **Materials:** Illustrated cards for "Energy Collector Game", Stickers (energy points).
- **Creative Tools:** Paper, Crayons, Lego blocks, Minecraft: Education Edition (optional).
- **Hardware:** Tablets/Laptops for optional AI drawing or videos.

Activity Overview (3-Week Plan)

Week	Time	Activity
Week 1	30-40 min	**Intro:** Storytime, Discussion on Energy sources, Drawing things that use energy.
Week 2	30-40 min	**Play:** "Energy Collector Game" (Collecting stickers for tech tasks). Counting and Comparing.
Week 3	30-40 min	**Create:** "Helping the Planet with AI". Building Eco-Cities with Lego/Drawing.
Week 3	15 min	**Reflect:** Sharing surprises and home pledges ("I will turn off lights").

2. Introduction and Motivation

Week 2.1: Introduction to Energy & AI

Goal: Introduce the idea that technology uses energy.

- **Welcome:** "Today we learn about robots, computers, and energy!"
- **Storytime:** Read a book like *Energy Makes Things Happen*.
- **Questions:** "What uses energy at home?" (TV, Tablet). "Where does it come from?" (Sun, Wind, Water).
- **Activity:** Children draw or point to pictures of items that use energy.

3. Research and Learning

Week 3.1: Learning Through Play: Energy Collector Game

Goal: Understand that some actions use more energy than others.

- **Setup:** Divide children into teams. Place illustrated cards face down (e.g., Robot Vacuum, Watching Video).
- **Gameplay:** Teams pick cards. Each card is worth "Energy Stickers."
- **Math:** Teams count their stickers.
- **Discussion:** "Which activity used the most energy?" "Why?" "How can we save energy?" (Turn it off when done).

4. Creative Application

Week 4.1: Helping the Planet with AI

Goal: Show that technology can help the environment.

- **Prompt:** "How can robots help nature?" (e.g., Collecting trash, watering plants).
- **Task:** Work in small groups to build an **Eco-City**.
- **Tools:** Use Lego, Minecraft, or Paper/Crayons.
- **Requirements:** Must have Green Spaces (Parks) and Tech Helpers (Solar Panels, Robots).
- **Share:** Present the city: "Our robot recycles plastic!"

5. Reflection and Evaluation

Closing Circle:

- "What surprised me?"
- "What is one thing I can do at home to help?"

Assessment: Teacher observes participation and understanding during the Eco-City presentation.

Teacher Notes

- Reinforce simple eco-actions: turning off lights, recycling, walking instead of driving.
- Encourage positive feedback and group discussion.