



AI-GREENER

2024-1-AT01-KA220-SCH-000248327

LESSON PLAN

The Technological Transition from Crisis to Sustainability

 <p>QUADRAT HAK + HLW Bundeshandelsakademie Wolfsberg Austria</p>	 <p>Darica İlçe Milli Eğitim Müdürlüğü Turkey</p>	 <p>CAMPUS 02 FACHHOCHSCHULE DER WIRTSCHAFT Campus 02 Fachhochschule der Wirtschaft GmbH Austria</p>	 <p>ΔΙΕΥΘΥΝΣΗ ΔΕΥΤΕΡΙΑΣ ΕΚΠΑΙΔΕΥΣΗΣ ΚΕΦΑΛΛΙΝΙΑΣ Directorate of Secondary Education of Kefallinia Greece</p>	 <p>Jaunpiebalgas vidusskola Latvia</p>	 <p>sucessos criativos Sucessos Criativos, Lda Portugal</p>	 <p>Средно общественообразователно училище Любен Каравелов Sredno obshtnoobrazovatelno uchilishte Lyuben Karavelov Bulgaria</p>
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1. TITLE

The Technological Transition from Crisis to Sustainability: The History of Environmental Crises and AI Solutions.

2. GRADE LEVEL

ISCED Level 3 – Upper Secondary Education (ages 15–18)

3. SUBJECT AREA

History

4. TYPE

Lesson Plan

5. DURATION

Double session (2 × 60 minutes) optional project-based homework.

6. LEARNING OBJECTIVES

- O1: Students will critically analyze historical examples of 20th-century economic and environmental crises, identifying causal relationships between policy, economy, and environmental degradation.
- O2: Students will evaluate the historical evolution of the concept of 'sustainability' and 'green entrepreneurship' as a response to these crises (Historical Thinking).
- O3: Students will design a theoretical "AI-driven startup" to solve a historical environmental challenge, applying the principles of green digital entrepreneurship.

7. Key Competences Developed

- Literacy
- Mathematical competence and competence in STEM
- Digital competence
- Citizenship competence



- Entrepreneurship competence

8. Prior Knowledge / Prerequisites

Basic knowledge of contemporary Greek and world history, according to the C' Lyceum General Education curriculum. Critical thinking skills are essential.

9. Lesson/Project Outline

Phase 1 – Introduction (Engage & Contextualize)

Instructions & Activities: Historical mapping of major 20th-century environmental and economic crises (e.g., the Greek economic crisis). Analysis of how past technological and economic decisions created current challenges. Introduction of the concept of "historical responsibility."

Expected Output: Recognition of historical crises and framing the need for AI-driven solutions.

Resource (name)	Link (to the folder on Teams)
Historical Sources: Crisis Analysis (DOCX)	https://teams.microsoft.com/l/doc/Lesson3/Historical_Sources_Crisis_Analysis.docx

Phase 2 – Exploration (Investigate & Compare)

Instructions & Activities: Critical analysis of historical sources, comparing past methods of dealing with environmental challenges to the modern approach of Green Entrepreneurship. Examination of the difference between simple mechanization and the use of AI for predictive climate modeling and proactive action. Investigation leads to drafting a report identifying historical weaknesses in crisis management.

Expected Output: Report outlining historical weaknesses and proposing how technological transition can overcome them.

Resource (name)	Link (to the folder on Teams)
Source Analysis Document (DOCX)	https://teams.microsoft.com/l/doc/Lesson3/Source_Analysis_Document.docx

Phase 3 – Application (Hands-On Practice)

Instructions & Activities: Historical AI Intervention Project: Teams hypothesize that AI existed during their chosen crisis and design a technological solution (an AI-driven startup) that would have prevented the disaster. Using the principles of green digital entrepreneurship, students create a



Pitch Deck explaining how AI would use historical data to create business value and restore the environment.

Expected Output: Completed Pitch Deck (PPTX) based on the principles of green digital entrepreneurship.

Resource (name)	Link (to the folder on Teams)
Template: Pitch Deck (PPTX)	https://teams.microsoft.com/l/doc/Lesson3/Template_Pitch_Deck.pptx
Guide: Digital Green Entrepreneurship (PDF)	https://teams.microsoft.com/l/doc/Lesson3/Guide_Digital_Green_Entrepreneurship.pdf

Phase 4 – Reflection & Consolidation (Present & Connect)

Instructions & Activities: Presentation of the Pitch Decks and Peer Review assessment. Reflection focuses on connecting historical knowledge with digital innovation. Discussion on the necessity for understanding past mistakes to guide sustainable development decisions , strengthening students' Citizenship Competence.

Expected Output: Enhanced Citizenship Competence and critical thinking capacity regarding history and technology.

Resource (name)	Link (to the folder on Teams)
Pitch Deck Assessment Protocol (DOCX)	https://teams.microsoft.com/l/doc/Lesson3/Protocol_Pitch_Deck_Assessment.docx

10. Assessment Criteria

Assessment checks critical analysis (O1) and entrepreneurial application (O3).

Quiz (Open questions): Evaluation of the critical analysis from Phase 2 (understanding causal relationships in historical crises).

Portfolio: Includes the final presentation (Pitch Deck) and documentation of sources/arguments.

Resource (name)	Link (to the folder on Teams)
Quiz Form (DOCX)	https://teams.microsoft.com/l/doc/Lesson3/Quiz_Form.docx



11. Teaching Materials

Name	Type (Developed/Existing)	Link	Role in the lesson
Source Analysis Document	Developed (DOCX)	https://teams.microsoft.com/l/doc/Lesson3/Source_Analysis_Document.docx	Structured critical evaluation of historical responses (Phase 2).
Template: Pitch Deck	Developed (PPTX)	https://teams.microsoft.com/l/doc/Lesson3/Template_Pitch_Deck.pptx	Core tool for application and presentation of the business idea (Phase 3).
eGuide to Digital Green Entrepreneurship	Existing (Conceptual Link)	https://ai-greener.eu/e-guide-download	Reference framework for green entrepreneurship principles.

12. External Resources and References

Resource (name)	Link (external or to the folder on Teams)
ME GSEVEE Annual Report (2020): Digital Transformation	((https://imegsevee.gr/wp-content/uploads/2020/07/IME_GSEVEE_2020_Report.pdf))
Environment and Entrepreneurship (Manual)	http://repository.edulll.gr/edulll/retrieve/6959/1668_2_%CE%95%CE%9D%CE%9F%CE%A4%CE%97%CE%A4%CE%91%2012_COVER.pdf

