



ECOLINGUA

EcoLingua Curriculum: Digitally Enhanced Pedagogy for Integrating Environmental Issues into Language Teaching” (ECOLINGUA)

Activity Plan 1 – C1 Level

General Information

- **Partner Institution:** GAUN
- **Country:** Turkey
- **CEFR Level:** C1
- **Activity Number:** Act1
- **Title of Activity:** *The Ethics of Climate Engineering*

2. Strategy Statement

At C1 level, learners can evaluate **controversial scientific and ethical issues**. This activity introduces **climate engineering (geoengineering)** — methods like carbon capture, cloud seeding, or solar radiation management. Students analyze pros and cons, practice **evaluative language, hedging, and advanced discourse markers**, and conduct a **panel discussion** on whether humanity should rely on such technologies.

3. Activity Details

3.1. Learning Objectives

- *Language:* Students will debate complex issues, use hedging and evaluative expressions, and write argumentative essays.
- *Environmental:* Students will critically assess climate engineering technologies, their risks, and their ethical implications.

3.2. Target Skills & Competences

- *Language Skills:* Academic reading, advanced speaking (panel format), note-taking, formal writing
- *Linguistic Focus:* Hedging (*might, could, potentially*), evaluative expressions (*It is questionable whether...*), discourse markers (*in addition, nevertheless, on the contrary*)
- *Environmental Competences:* Ethical reasoning, systems thinking, critical evaluation of technology



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3.3. Resources, Materials & Media

- *Printed/Handouts*: Articles summarizing different geoengineering techniques (simplified academic texts)
- *Digital Resources*: Short video on geoengineering experiments (2–3 min)
- *Audio-Visual Materials*: Pros/cons chart
- *Realia*: Debate placards for roles (“Scientist,” “Government Official,” “NGO,” “Citizen”)

4. Detailed Activity Procedure

Stage	Time	Teacher Actions	Student Actions	Method/Approach	Materials
Warm-up / Lead-in	5 min	Show a video clip about climate engineering (e.g., artificial clouds). Ask: “Should we change the climate artificially?”	Discuss in pairs	Inquiry	Video
Pre-Task / Input	10 min	Provide short readings on geoengineering methods. Highlight hedging & evaluative language.	Read, annotate key arguments	CLIL, academic reading	Handouts
Main Task (Part 1)	15 min	Assign roles (scientist, government, NGO, citizen). Groups prepare position statements.	Discuss pros/cons, prepare arguments	Cooperative learning	Fact sheets
Main Task (Part 2)	15 min	Hold a panel discussion : each role presents, responds, and debates.	Debate actively with role perspectives	Role-play, CLT	Placards
Post-Task / Reflection	10 min	Class reflects: “Should we use technology, or focus only on reducing emissions?”	Share opinions, compare	Critical discussion	Class



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Wrap-up & Homework	5 min	Homework: Write a 300-word argumentative essay <i>“Geoengineering is too risky to</i>	Submit next class	Writing	Paper
Stage	Time	Teacher Actions	Student Actions	Method/Approach	Materials
		<i>be our climate solution.”</i> Agree/disagree.			

5. Differentiation & Inclusion

- Provide weaker learners with simplified fact sheets and sentence starters (*“One possible risk is...”*).
- Stronger learners encouraged to extend arguments with references to global justice and ethics.
- Role distribution allows students to engage according to their strengths (speaking, note-taking, questioning).

6. Assessment & Evaluation

- Teacher observes debate: fluency, accuracy, persuasiveness, use of advanced markers.
- Peer voting: “Most convincing panelist.”
- Homework essay assessed for academic register, argument depth, and critical stance.

7. Sustainability & Follow-Up

- Connect activity to real COP conference debates about technological solutions.
- Encourage students to research one current geoengineering project and present findings in the next class.

8. Suggested Vocabulary

- **Key terms:** geoengineering, carbon capture, cloud seeding, solar radiation management, mitigation, unintended consequences
- **Structures:**
 - *“It is questionable whether geoengineering could solve the problem.”*
 - *“This might reduce emissions, but it could also cause new risks.”*
 - *“On the contrary, reducing consumption is a safer long-term solution.”*



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9. Games & Links

- **Game:** *Pros vs. Cons Speed Debate* – Students rotate partners, argue for/against in 1 minute.
- **Game:** *Prediction Challenge* – Teams speculate: “If geoengineering becomes common, what might happen in 50 years?”
- **Links:**
 - Oxford Geoengineering Programme
 - National Academies – Climate Intervention Report

10. Strategy and Suggested Methodology

This activity promotes **critical, ethical, and persuasive language use:**

- **Role-Play/Simulation (Crookall, 2010):** A panel debate mirrors real-world decisionmaking.
- **Task-Based Learning (Ellis, 2003):** Preparing and debating positions are authentic communicative tasks.
- **CLIL (Coyle, Hood, & Marsh, 2010):** Scientific and ethical content integrated into advanced English practice.
- **Critical Pedagogy (Freire, 1970):** Encourages questioning of power, technology, and ethics.
- **Sustainability Education (Sterling, 2001):** Focuses on long-term ecological and social consequences of human actions.
- **Methodological Strategies Applied:**
 - *Scaffolding* with fact sheets, role cards, language banks.
 - *Peer collaboration* during preparation.
 - *Multimodal input* (video, text, charts) supports comprehension (Paivio, 1991).
 - *Gamification* (speed debates, prediction challenges) makes abstract discussions engaging (Dörnyei, 2001).



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