FutureEarth

Interactive Climate Simulation for Teachers

Transform climate education into an engaging, data-driven experience where students experiment with real-world solutions and see immediate results.

Why This App?

Interactive Learning

Turns climate change into an interactive map game that makes complex environmental concepts tangible and fun.

Instant Results

Lets students experiment with actions and see results instantly, creating immediate feedback loops for learning.

Data-Driven Discussion

Teachers can guide meaningful discussions around real data per city, connecting theory to practice.

Core Game Mechanics

Credit System

Each student or team receives a limited number of credits (e.g., 10) to spend strategically.

Every action costs 1 credit, forcing students to prioritize and think critically about their choices.

Plant Trees

Recycling Programs

Public Transport

Green Roofs

Bike Lanes

Goal: Spend credits in the smartest way for that specific city and year to maximize environmental impact.

City-Specific Behavior

Each city has unique traits that affect the results of student actions, making every simulation authentic and educational.

Unique City Traits

Cities have characteristics like more greenery or better transport infrastructure that influence outcomes.

Variable Action Effects

The same action can have slightly different effects per city– greener cities cool faster, coastal cities face different challenges.

Comparative Learning

Perfect for comparing European cities in class, helping students understand regional climate differences.

ChatGPT Climate Coach

Intelligent Guidance

Students can ask questions like "Why is my map still red?" and receive personalized explanations.

ChatGPT explains outcomes based on chosen actions and city characteristics, providing context and theory.

The AI can propose next best actions or give background information, adapting to each student's learning pace.

Teacher Flow

Login & Credits

Students log in and receive their action credits

Choose City & Year

Opens app and selects city and time period

Take Actions

Clicks actions and watches heat map change

Ask ChatGPT

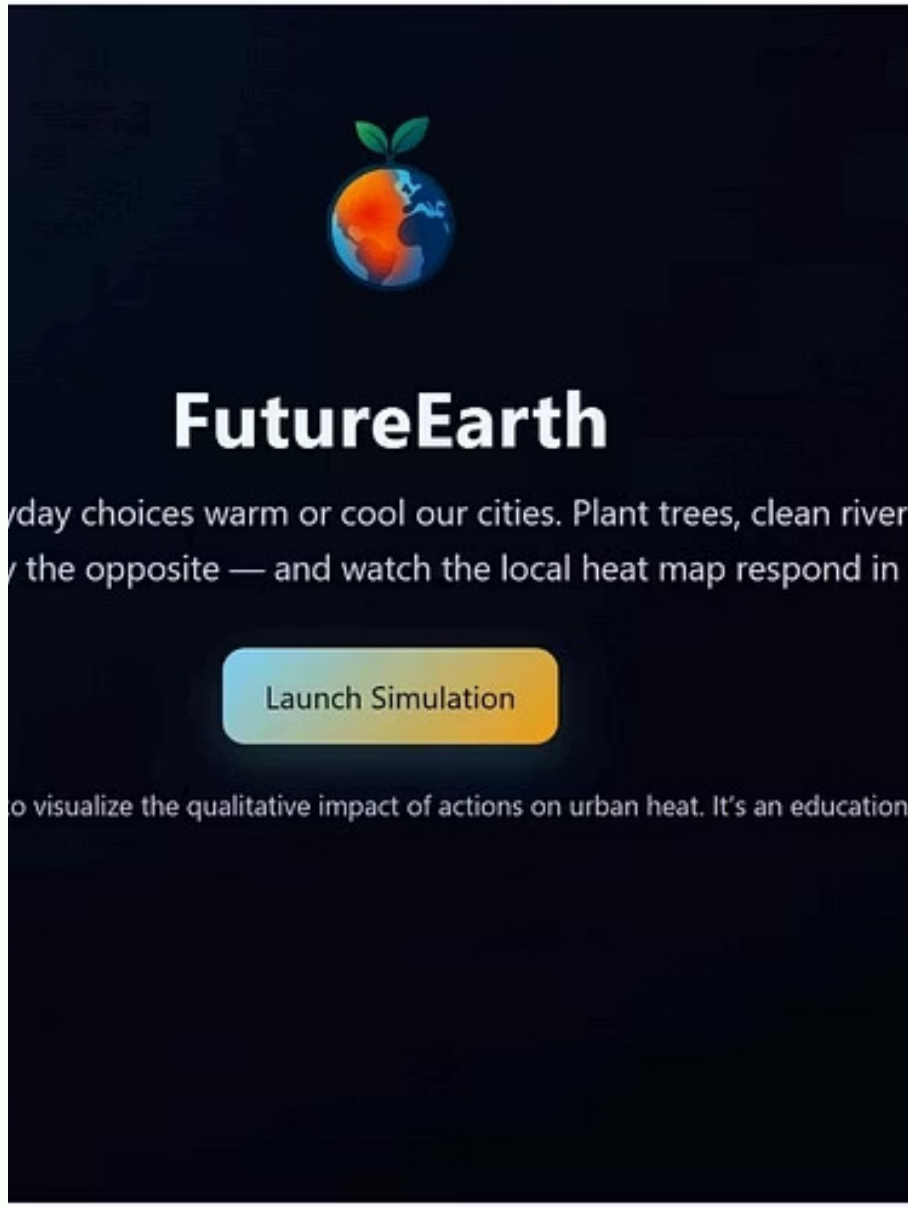
Requests clarification and guidance

Compare Strategies

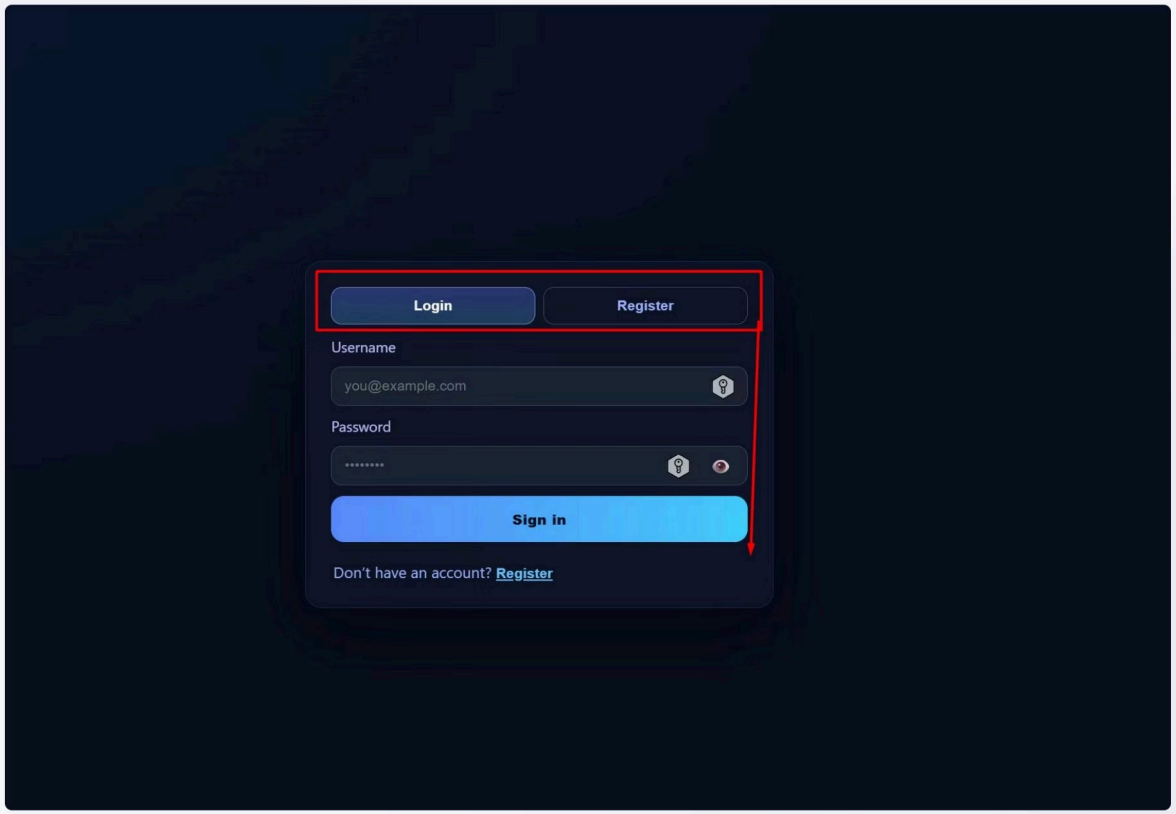
Class discusses different approaches

App Interface: Home Screen

Clean, intuitive interface welcomes students with clear navigation and engaging visuals that make climate education accessible.



Login Experience



Secure Access

Simple login process ensures each student has their own personalized experience and progress tracking.

Teachers can monitor individual and class-wide performance through integrated dashboards.

Interactive Simulation Map

01

Interactive heat map displays the selected city

02

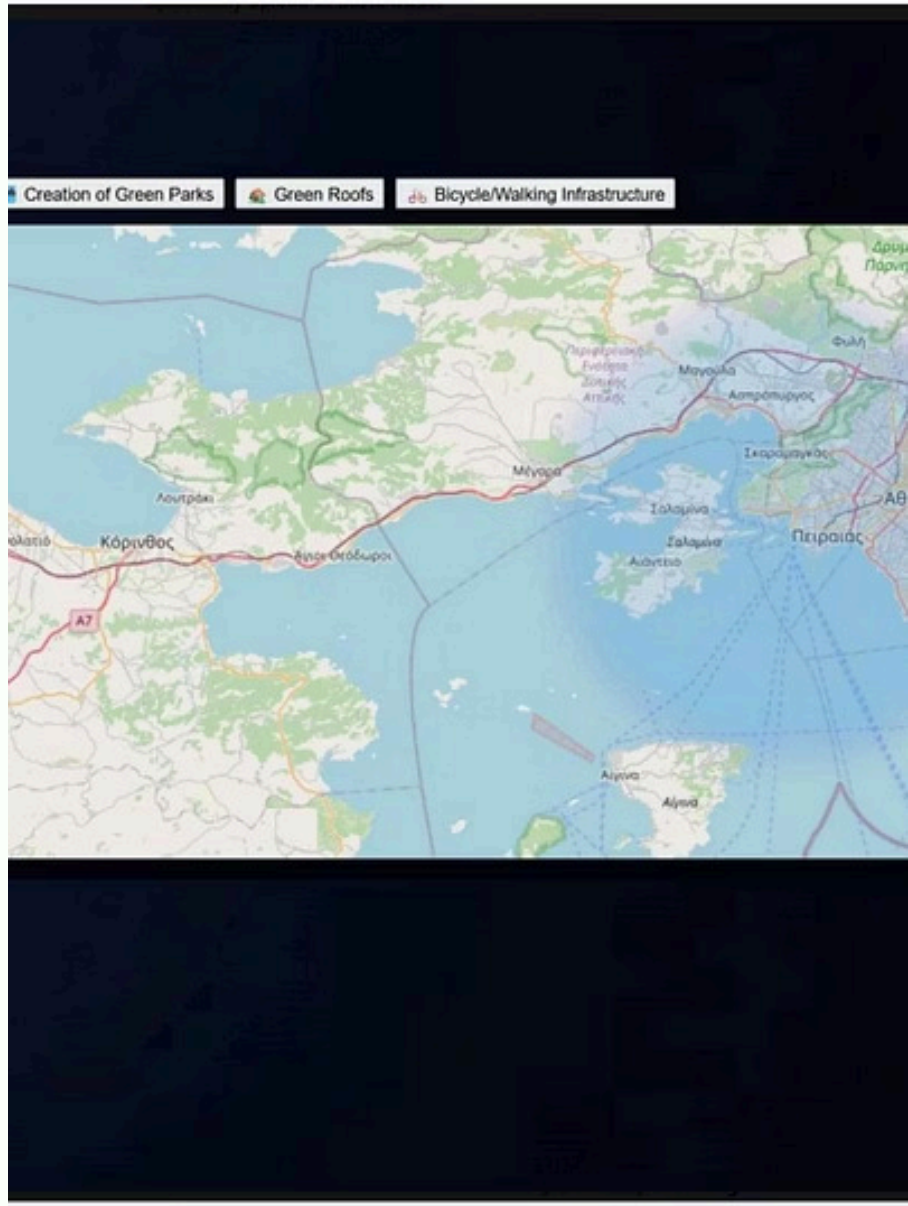
Students change year (2025 / 2030 / 2050) to see future projections

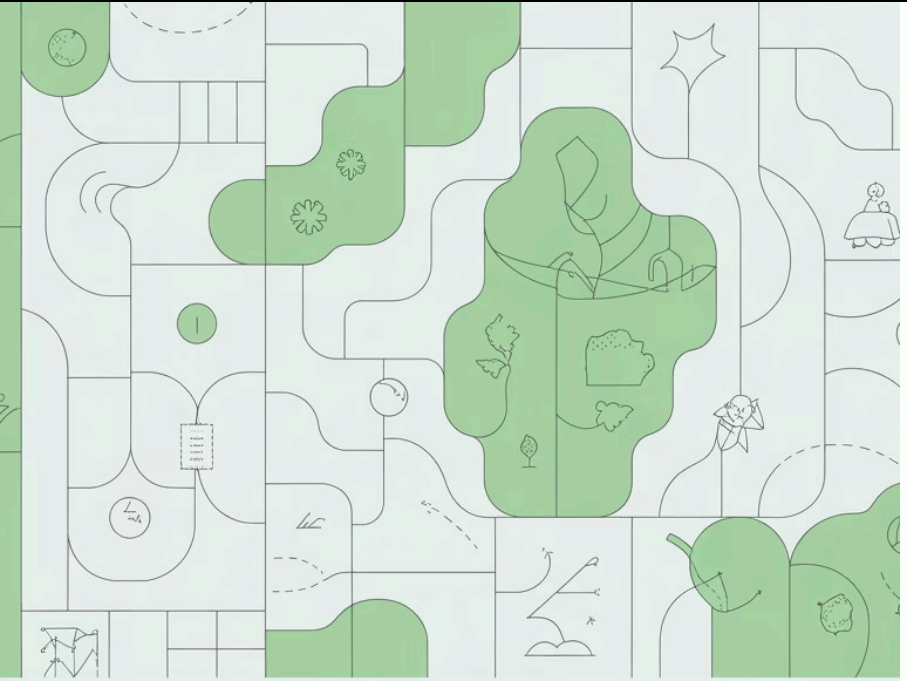
03

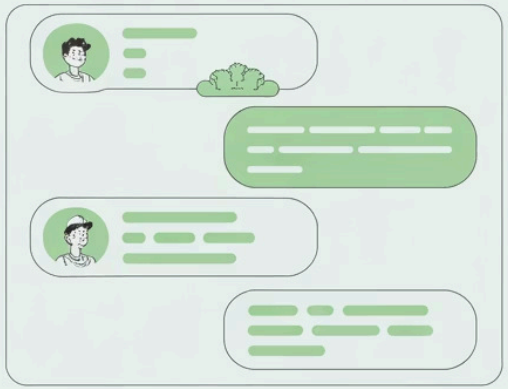
Students spend credits on actions like planting trees, public transport, green roofs

04

Map colors update in real-time showing environmental impact







Dual-View Learning Interface

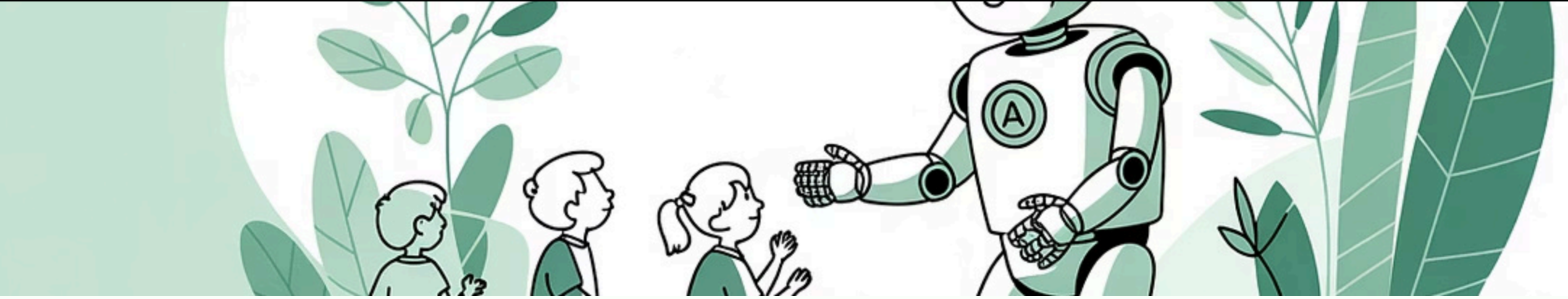
Top: Interactive Heat Map

- Visual representation of city climate
- Year selection slider (2025/2030/2050)
- Action buttons for spending credits
- Real-time color updates showing impact

Bottom: ChatGPT Climate Coach

- Students ask questions in their language
- AI explains based on city characteristics
- Contextual responses about traffic, coastal effects, greenery
- Follow-up questions encouraged

Teachers can project both map and chat for whole-class discussion, creating collaborative learning moments.



AI Green Personal Assistant

Contextual AI for Primary School Students

Friendly Learning Companion

A personalized AI assistant for each of 50 students, helping with homework, creativity, and daily organization.

Eco-Awareness Integration

Promotes environmental consciousness through fun, interactive activities and daily green challenges.

Contextual Understanding

Understands each student's level, interests, and environment for truly personalized learning.

Implementation & Impact

Month 1: Setup

Introduce concept to teachers and parents. Provide student access via school tablets.

1

Month 2: Training

Short workshops on "How to talk to your AI Assistant." Teachers guide usage across subjects.

2

Months 3-6: Integration

Daily use for learning and green challenges. Teachers monitor via dashboards.

3

Green Education Focus

The assistant encourages eco-friendly habits like energy saving and recycling, supports local nature projects and sustainability quizzes, and includes daily reflection prompts: *"What can you do for the planet today?"*

Benefits

- Personalized learning and motivation
- Stronger digital and eco-literacy
- Teacher support with data insights

Next Steps

- Pilot with 50 students
- Collect feedback from all stakeholders
- Expand to whole school