



# **Module 5: Education for Climate Action Harnessing Artificial Intelligence and Interactive Tools for Climate Change Mitigation and Gaining Green Skills**

# Module Overview

This module equips teachers with knowledge, strategies, and practical tools to foster climate action within schools and communities. Participants will explore climate action frameworks, understand the power of advocacy, and develop actionable initiatives that empower students and local communities.

## Learning Objectives:

By the end of this module, participants will be able to:



**Explain the difference between climate mitigation and adaptation strategies.**



**Recognize the role of advocacy and grassroots movements in driving climate action.**



**Design practical, actionable climate initiatives suitable for classroom or community implementation.**



**Engage students in active learning and community participation for climate action.**

# 1. Understanding Climate Action Frameworks

## Key Concepts:

### Mitigation:

Actions that reduce or prevent greenhouse gas emissions (e.g., renewable energy, energy efficiency, carbon sequestration).

### Adaptation:

Strategies to cope with the effects of climate change (e.g., flood-resistant infrastructure, drought-tolerant crops, resilient urban planning).

## Recommended Resources:

- **IPCC Special Report on Climate Change (Summary for Educators)** – [Link](#)  
Provides an accessible overview of mitigation and adaptation strategies globally.
- **UN Climate Action Portal** – [Link](#)  
Explains international climate frameworks and actionable solutions.
- **NASA Climate Kids: Fighting Climate Change** – [Link](#)  
Child-friendly introduction to how actions can reduce climate impacts.

## 2. Importance of Advocacy and Grassroots Movements

### Key Concepts:

**Grassroots movements** amplify community voices to influence policy and societal behaviors.

**Advocacy** involves educating, mobilizing, and motivating others to take climate action.



### Case Studies:

#### Fridays for Future Movement

Student-led climate advocacy shaping policy discussion worldwide.

#### Local Community Initiatives

Examples of city-led urban gardens, energy audits, or plastic reduction campaigns.

#### Discussion Prompt:

How can student-led campaigns inspire real change in your school or city?

# 3. Developing Actionable Classroom & Community Initiatives

## Key Concepts:

01

**Linking global climate goals to local action.**

02

**Setting measurable, achievable, and scalable objectives.**

03

**Integrating AI tools and interactive technologies to enhance engagement and track outcomes.**

## Practical Ideas for Teachers:



### Energy Audits

Implementing school-wide energy audits or waste-reduction challenges.



### Awareness Campaigns

Creating climate awareness campaigns via social media or school newsletters.



### Student Projects

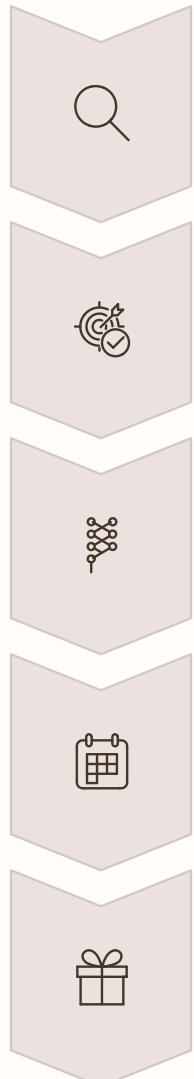
Designing student projects using data visualization tools to track carbon footprint reductions.

# 4. Activities

## 4.1. Workshop: Creating a Climate Action Plan

**Objective:** Design a concrete climate initiative for your school.

**Steps:**



**Identify a climate issue relevant to your school or community.**

**Set measurable goals (e.g., reduce electricity use by 20%, plant 50 trees).**

**List required resources and potential collaborators.**

**Outline a timeline and evaluation metrics.**

**Present plans in small groups for feedback.**

**Tools:**

Canva, Google Slides, Miro, or Padlet for visual planning.

## 4.2. Role-Playing: Simulating Advocacy Campaigns

**Objective:** Experience the dynamics of climate advocacy.

### Scenario Examples:

#### **School Board Meeting – Renewable Energy Initiative**

**Objective:** Advocate for installing solar panels and energy-efficient systems in the school.

**Roles:** Students as climate advocates (presenting benefits of renewable energy, cost savings, environmental impact). Teachers/administrators as school board members (questioning feasibility, budget, safety). Optional: Parent representatives (concerned about cost or aesthetics).

**Steps:** Advocates prepare a 5-minute presentation with key points. Board members ask challenging questions about cost, practicality, and maintenance. Class discusses which arguments were most convincing and why.

**Debrief Questions:** How did the advocates persuade the decision-makers? What compromises could be made to get approval?

#### **City Council Debate – Plastic Ban Campaign**

**Objective:** Campaign for banning single-use plastics in local businesses.

**Roles:** Students as environmental activists (presenting data on plastic pollution). Students as business owners (concerned about cost, customer satisfaction). Teachers as city council members (mediating the debate and voting).

**Steps:** Activists prepare a short proposal with evidence and alternative solutions. Business owners respond with concerns and propose compromises. City council votes on a mock policy based on the debate.

**Debrief Questions:** How did each group balance environmental and economic concerns? Which advocacy strategies were most effective?

#### **Community Climate Fair – Energy Conservation Campaign**

**Objective:** Persuade community members to reduce energy use at home.

**Roles:** Students as volunteers/educators at the fair (explaining energy-saving tips, handing out leaflets). Other students or teachers as community members (ask questions, show resistance or curiosity).

**Steps:** Volunteers prepare interactive displays or mini-presentations. Community members rotate between booths asking questions. Volunteers track which strategies sparked the most interest.

**Debrief Questions:** What techniques engaged the audience most effectively? How could the campaign be improved for real-world impact?

#### **United Nations Youth Climate Forum**

**Objective:** Role-play an international climate negotiation focused on adaptation strategies.

**Roles:** Students as delegates from different countries (developing countries, emerging economies, industrialized nations). Teachers as UN moderators (manage time, ensure rules of debate).

**Steps:** Delegates research their country's climate challenges and priorities. Conduct a mock negotiation to agree on a climate action plan. Present a final joint declaration summarizing agreed-upon actions.

**Debrief Questions:** How did countries' priorities and resources affect the negotiation? Which compromise strategies were successful?

#### **School Climate Action Campaign Planning**

**Objective:** Design and pitch a climate initiative for your school (e.g., tree planting, waste reduction, or green transport).

**Roles:** Students as project leaders (designing initiative). Students/teachers as stakeholders (students, parents, administration). Optional: Local media (mock journalists asking critical questions).

**Steps:** Leaders present their project proposal in a 5-minute pitch. Stakeholders ask questions and offer feedback. Class votes on which project to implement as a pilot.

**Debrief Questions:** What made some proposals more convincing than others? How can feedback be used to improve project effectiveness?

**Expected Outcome:** Participants practice persuasive communication, stakeholder engagement, and campaign design.

**Materials Needed:** Scenario cards, planning templates, or interactive LMS discussion boards.

## 5. Assessment & Reflection

### Action Plan Submission:

Teachers submit a climate initiative plan for peer review.

### Reflection Journal:

Participants describe lessons learned from advocacy simulations and identify opportunities to implement initiatives.

### Discussion Forum Prompt:

Which mitigation or adaptation strategy could be realistically applied in your school or local community, and what steps are required to make it happen?

