



**AI-GREENER**

2024-1-AT01-KA220-SCH-  
000248327

# AI Applications Worksheet

## How AI Helps Reduce the Greenhouse Effect

The **greenhouse effect** is caused by gases like carbon dioxide (CO<sub>2</sub>) trapping heat in the Earth's atmosphere, which leads to global warming and climate change. Reducing greenhouse gas emissions is one of the biggest challenges facing the world today.

**Artificial Intelligence (AI)** can help by analyzing large amounts of data, finding patterns, and making predictions or decisions faster and more accurately than humans alone. When applied to environmental problems, AI can:

- Predict future CO<sub>2</sub> emissions and identify major sources
- Optimize how energy is produced, distributed, and used
- Reduce fuel consumption and traffic congestion
- Support smarter decisions by governments, cities, and companies

In this activity, your group will explore one AI application that helps reduce greenhouse gas emissions or supports sustainability.

**Age group:** 15–18

**Group size:** 3–5 students

**Assigned topic (circle one):**

AI for CO<sub>2</sub> Emission Prediction / Smart Energy Grids / AI-Based Traffic Management Systems

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## Part 1: Understanding the Application

1. **What problem does this AI application try to solve?**  
(Describe the real-world problem and why it matters.)

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2. **How does AI help in this application?**  
(What does the AI analyze, predict, or optimize?)

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**3. What kind of data might this AI system use?**

*(Examples: sensors, historical data, maps, weather data, energy usage, etc.)*

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## Part 2: Benefits and Impact

**4. List two benefits of using AI in this application.**

*(Think about efficiency, safety, cost, or the environment.)*

Benefit 1:

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Benefit 2:

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**5. How can this AI application help reduce environmental impact or improve sustainability?**

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## Part 3: Challenges and Concerns

**6. What are one or two challenges or risks of using this AI system?**

*(Examples: data accuracy, privacy, cost, reliability, fairness.)*

Challenge 1:

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Challenge 2:

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**7. What could happen if the AI system makes a mistake?**

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## Part 4: Your Opinion

8. Do you think this AI application should be widely used? Why or why not?

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9. Can you think of one improvement or future idea for this AI application?

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Group members: \_\_\_\_\_

Date: \_\_\_\_\_



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