

AI & Renewable Energy

Grade Level: **9-12** | Subject Area: **Science**

LESSON TABLE OF CONTENTS

[Lesson Details](#)

[Launch](#)

[Exploration](#)

[Whole Class Discussion](#)

[Assessment](#)

This lesson was designed under the WeTeach_AI **Advancing AI Literacy Project**. The project supports the development of standards-aligned AI literacy lessons designed for teachers by teachers. Additional lesson plan material, such as rubrics, answer keys, activity guides, and instructional considerations can be found here on our website.

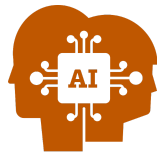
The contents of this digital lesson were developed by the Texas Advanced Computing Center ([TACC](#)) with the support of [Google.org](#). However, the contents do not necessarily represent the policies of Google.

Lesson Author: Leslie Llamas, Science Teacher

“Quote about what inspired the lesson, or something the lesson writer wishes teachers/students will take away. They will write a second sentence. However, this section should be no longer than 3 sentences in length.”

Lesson Description

In this lesson, students investigate how artificial intelligence (AI) supports renewable energy production, grid management, and system maintenance. They analyze how AI uses data to optimize sustainability while considering ethical concerns such as responsible energy allocation, data privacy, and environmental impact. Through research, debate, and solution-building, students evaluate the role of AI in creating responsible approaches to sustainability. The lesson builds critical thinking, strengthens data literacy, and encourages students to consider both the technical and ethical dimensions of AI in society.



Lesson Objectives

(formatted as “Students will be able to...” statements)

- Goal 1:
- Goal 2:
- Goal 3:

Essential Questions

Outline the basic details and purpose of the lesson here. Also, highlight if this is a face-to-face lesson or a digital lesson.

A brief 2-3 sentence overview of the lesson focus and key takeaways.

TEKS Alignment (Texas Standards Alignment)

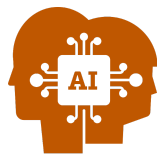
- TEKS Code 1 – Description
- TEKS Code 2 – Description
- TEKS Code 3 – Description

- TEKS Code 1 – Description
- TEKS Code 2 – Description
- TEKS Code 3 – Description

CSTA/ISTE Alignment (National Standards Alignment)

- Standard 1 – Description
- Standard 2 – Description
- Standard 3 – Description

- Standard 1 – Description
- Standard 2 – Description
- Standard 3 – Description



Inclusive Computing Considerations

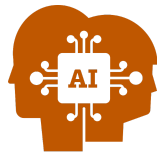
(based on Guiding Principles for Inclusive CS Teaching)

--	--	--	--

AI Literacy Competencies

(based on TeachAI Framework)

Key Terms	
Term	Definition
Example Term 1	Brief definition here
Example Term 2	Brief definition here
Example Term 3	Brief definition here
Example Term 4	Brief definition here
Example Term 5	Brief definition here



Launch

Engaging activity or prompt to introduce the lesson.

[Information goes here]

Exploration

Step-by-step student tasks, experiments, or investigations.

[Information goes here]

Whole Class Discussion

Discussion questions, teacher prompts, and expected student responses.

[Information goes here]

Assessment

Formative or summative assessment tasks and criteria.n.

Assessment Opportunities	Facilitation Tips
Activity Title Outline the big picture goals here. How will you measure students' mastery of lesson objectives?	Outline general teacher actions that should occur during this activity.