

Meet the Machine

Lesson 1

Meet the Machine

Technique: (Introduction)

Grade Band: 9–12

Time: 45 minutes

This lesson is for students who have little or no experience with generative AI. Teachers whose students are already AI-literate may skip to Lesson 2.

Standards

ISTE 1.1.d, 1.3.b

CCSS ELA SL.9-10.1, SL.9-10.2

AI4K12 Big Ideas 3, 5

Local/district _____

Full standard descriptions appear in Appendix A, p. 67.

Review Copy: Do Not Copy or Distribute.

Objective

Students will interact with a generative AI tool, observe how prompt wording changes the output, and articulate at least one strength and one limitation of AI-generated text.

Materials

- AI access (teacher-projected or individual student devices)
- Projection screen
- **Handout 1: Two Prompts, One Topic** (one per student)
- Whiteboard or chart paper for class discussion notes

No devices? Run both prompts on the projector. Works the same way.

Lesson Sequence

1. Warm-Up: Where Are We? (5 min)

Quick show-of-hands poll. Ask students to raise their hand for whichever statement fits best:

~5 min
No judgment.
Gauge the room.

- “I use AI chatbots regularly, daily or almost daily.”
- “I’ve tried one a few times.”
- “I’ve never used one.”
- “I’m not sure what counts as AI.”

Say:

There are no wrong answers here. Some of you have been using these tools for years. Some of you have never opened one. Both are fine. By the end of today, everyone will have the same starting point.

~5 min

Keep it short. No
“under the hood.”

Note the rough distribution. You'll use it to pair students during guided practice.

2. Introduction: What Is This Thing? (5 min)**Say:**

A generative AI is a computer program that produces text (and sometimes images, code, or audio) based on patterns it learned from enormous amounts of existing writing. When you type something to it, it predicts what words should come next, one at a time.

It is not a person. It doesn't “know” things the way you do. It doesn't have opinions. It can sound extremely confident while being completely wrong. And the way you talk to it changes what you get back.

Today we're going to see that in action.

Key Idea

AI generates text by predicting patterns. It is a tool, not an authority. What you ask, and how you ask it, determines what you get.

~20 min

Core of the lesson.
Pair experienced +
new users.

Review Copy. Do Not Copy or Distribute.

3. Guided Practice: Two Prompts, One Topic (20 min)

Hand out **Handout 1**. Explain that the class will send two different prompts to the same AI, on the same topic, and compare what comes back.

Prompt A: The Shortcut

tell me about the history of hip hop

Run the prompt (projected or on student devices). Give students 2 minutes to read the response.

Ask:

What did it give you? Could you paste this into a paper and turn it in? Did you learn anything you didn't already know?

Expect: “It's a summary.” “I could copy this.” That's the point.

Prompt B: The Thinking Prompt

I like hip hop but I don't really know how it started or why people say it changed everything. don't just give me a summary. what would someone who actually studies music want to know about how hip hop blew up?

Run the prompt. Give students 3 minutes to read, then ask the same three questions again. Then:

Ask:

What's different about this response? Which one could you copy? Which one makes you think? Which one would actually help you understand something?

Students record their observations on the handout.

Class discussion (5 min within this block)

Collect 3–4 observations on the board. Steer toward the core distinction: Prompt A asks AI to *produce*. Prompt B asks AI to *teach*.

4. Key Idea: Produce vs. Teach (5 min)**Say:**

Here's the single most important idea in this entire curriculum, and we'll come back to it again and again:

You can ask AI to *produce* something for you: a summary, an essay, a set of answers. Or you can ask it to *teach* you: to help you understand, to challenge your thinking, to show you where your knowledge has gaps.

The first one saves you time. The second one makes you smarter. They are not the same thing.

~5 min

Write **Produce vs. Teach** on the board. Recurs throughout.

Key Idea

There is a difference between asking AI to produce for you and asking it to teach you. The first gives you a product. The second gives you a process.

~5 min
Collect exit tickets
at the door.

5. Closure + Reading Assignment (5 min)

Exit ticket

Students write one sentence on the back of their handout (or on a slip of paper):

Name one thing AI did well today and one thing it got wrong or couldn't do.

Homework

Say:

Tonight, try this on your own. Pick any topic you're studying in any class right now. Write one prompt that asks AI to produce something for you (a summary, a set of answers, a paragraph you could turn in). Then write a second prompt that asks AI to teach you something about the same topic. Bring both prompts and both responses to class tomorrow.

Assessment

- **Formative:** Participation in show-of-hands warm-up and class discussion. Teacher observation during guided practice.
- **Exit ticket:** One sentence identifying a strength and a limitation of AI. Look for specificity: "it gave a clear timeline but didn't explain why the dates matter" is stronger than "it was good but sometimes wrong."

Differentiation *Review Copy. Do Not Copy or Distribute.*

No student devices

Teacher runs both prompts on the projector. Students observe, discuss in pairs, and record observations on the handout. The lesson works the same way; students just watch the interaction instead of driving it.

Mixed experience levels

Pair students who have used AI with students who haven't during guided practice. The experienced student drives; the newcomer asks questions and records observations.

English Language Learners

Provide prompts pre-printed on the handout so students can read at their own pace. Allow responses on the exit ticket in L1 if needed.

Advanced students

Challenge them to write a third prompt that's even more specific than Prompt B. What happens when you ask AI to take on a specific perspective? (Foreshadows Stress-Test It in Lesson 4.)

Two Prompts, One Topic

Same AI. Same topic. Different questions. Different results.

Prompt A: The Shortcut

tell me about the history of hip hop

What did the AI give you? (Check all that apply)

- A summary of facts and dates
- Names and events I already knew
- Something I could copy into a paper
- Something that made me think about something new

Notes: What stood out? What was missing?

Prompt B: The Thinking Prompt

I like hip hop but I don't really know how it started or why people say it changed everything. don't just give me a summary. what would someone who actually studies music want to know about how hip hop blew up?

What did the AI give you this time? (Check all that apply)

Review Copy. Do Not Copy or Distribute.

- A summary of facts
- Questions I hadn't thought of
- Something I could copy into a paper
- Something that made me think about something new

Notes: How was this response different from Prompt A?

Prompt A asks AI to **produce**. Prompt B asks AI to **teach**.

Which one helps you learn?

Exit Ticket

In one sentence: name one thing AI did well today and one thing it got wrong or couldn't do.

