



STAC

**SCIENCE & TECHNOLOGY
ADVANCEMENT CENTER**

Moving Beyond Policing:

How to Communicate, Support, and Implement AI-Enabled Science Learning

NSTA AI in Education Pathway

April 2026

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About Us

The ***Science & Technology Advancement Center (STAC)***, is a nonprofit organization that works with states, districts, and companies to design, develop and implement high quality science programs. We focus on integrating new and emerging technologies in classroom settings to support 3-dimensional learning.

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By the End of the Session

You will be able to:

- Explain why moving beyond policing is necessary
- Describe how to communicate about AI in ways that strengthen science sensemaking
- Identify how Science and Engineering Practices help protect the habits of mind students need for critical and logical thinking
- Recognize structures that support purposeful implementation of AI-enabled science learning

Leadership for AI-enabled science learning starts with communication, support, and purposeful design.

The Leadership Challenge



As AI becomes routine, science leaders face a deeper question:

- How do we ensure students still engage in the thinking that builds understanding?
- The answer is not more surveillance. It is stronger design grounded in sensemaking and the SEPs.

Why This Approach Makes Sense

When technology makes learning too smooth, students can miss the productive struggle and human interaction that lead to deep understanding.

- AI should not replace the thinking science education is meant to build.

Students need learning experiences that build:

- productive struggle
- reasoning
- discussion
- revision
- habits of mind that last beyond school

From Policing to Purpose

Old Focus

- Old focus
- Did the student use AI?
- Can we detect it?
- How do we control it?

New Focus

- What thinking must remain human?
- How is reasoning made visible?
- How can AI be used without replacing sensemaking?

Age of AI

Science and Engineering Practices help students build habits of mind that AI cannot do for them:

- asking questions
- analyzing evidence
- constructing explanations
- engaging in argument from evidence
- revising ideas through reasoning

These habits strengthen thinking in science, across disciplines, and beyond school.

What Habits of Mind are We Protecting?

The goal is not just stronger science classrooms.

It is helping students become:

- critical thinkers
- evidence-based decision-makers
- scientifically literate citizens
- thoughtful participants in a complex world

What Leaders Need to Communicate

To teachers: You are not being asked to police everything.

To students: AI does not replace your thinking.

To families: This shift is about protecting learning, not lowering expectations.

To communities: The goal is stronger reasoning, scientific literacy, and responsible AI use.

Forward Thinking Leadership for AI



Forward Thinking Leadership for AI

At your table or with a partner:

1. Review the document
2. Think about your own school district/leadership role – how could this be used



Thank you!

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NSTA Survey Session 3

