Security Detective Teams

Quick-Start Guide for Educators

The Big Idea (Read This First)

This isn't "students use AI to solve a mystery." It's **students discovering what happens when** two different kinds of intelligence work together.

The shift:

Old Framing	This Activity
AI is a tool students use Students get answers from AI Human OR AI	AI is a partner with different strengths Students discover what each partner contributes Human AND AI together

What students should discover (don't tell them—let them find it):

- AI excels at: spotting patterns across data, remembering technical details, processing large volumes of information quickly
- Humans excel at: understanding context, reading social situations, making judgment calls about what matters
- Together: insights neither could reach alone

The Scenario (2 min)

Mysterious account lockouts at a middle school. Students investigate with an AI partner to figure out what's happening.

Evidence includes: Login logs, password analysis, social media clues, network data.

The Flow (45 min total)

Phase	Time	What's Happening	Your Role
1. Human First	10 min	Students examine evidence WITHOUT AI	Circulate, prompt
2. Partnership	15 min	Students consult AI as teammate	Guide authentic dialogue (not search
3. Synthesis	10 min	Teams document what each partner contributed	queries) Push for specifics

Phase	Time	What's Happening	Your Role
4. Debrief	10 min	Whole-class discussion	Surface the distributed cognition insight

Critical Facilitation Moves

During Phase 1 (Human First):

"What do YOU notice before asking anyone else?"

This matters because students need to experience their own pattern-recognition before comparing it to AI's.

During Phase 2 (Partnership):

"Talk TO your AI partner, not AT it. Ask follow-ups. Disagree if you think it's wrong."

Watch for: Students treating AI like Google. Redirect: "Would you talk to a human teammate that way?"

During Phase 3 (Synthesis):

"Be specific: What did YOUR brain do that AI couldn't? What did AI do that you couldn't?"

This is where the partnership insight crystallizes.

Materials Needed

Evidence packet (1 per group) — see separate printable
Student worksheet (1 per student) — see separate printable
Device with AI access (1 per group minimum)
Timer
Projection for debrief

Low-resource option: Use the AI Response Cards instead of live AI. The learning works the same way.

The Debrief Questions That Matter

- 1. "What did your human brain catch that AI missed?" (Context, social reading, judgment)
- 2. "What did AI catch that you missed?" (Patterns, technical connections, speed)
- 3. "What did you figure out TOGETHER that neither could alone?" (This is the goal)

If Things Go Wrong

Problem	It's Actually	Do This
AI gives wrong answer	A teaching moment about verification	"Interesting—how would you check that?"

Problem	It's Actually	Do This
Students over-rely on AI	They haven't discovered AI's limits yet	"What CAN'T AI tell you about this situation?"
Students dismiss AI	They haven't discovered AI's strengths yet	"What's AI faster at noticing than you?"

From "True Teamwork: Building Human-AI Partnerships" — NICE K12 2025 Dr. Ryan Straight, University of Arizona • ryanstraight@arizona.edu