

Lesson 3: Research Skills in the AI Era

Student Learning Goals

- Understand the difference between searching and sourcing
- Use AI alongside traditional research methods
- Cross-check claims, citations, and source reliability
- Learn the basics of responsible citation

Assignment: “Research a Local Issue Using Both Tools”

- Choose a local or regional issue (e.g. water use, park development, school funding, etc.)
- Step 1: Ask two AI tools for background
- Step 2: Pull real sources from news, gov. databases, or local organizations)
- Step 3: Compare the quality, depth, accuracy and gaps
- Step 4: Write a 1-page brief citing both AI and traditional sources

Gotcha to Watch:

Don’t just copy what AI gives you, always chase the original sources. This creates shallow understanding and breaks trust with readers.

Skill Block: Sample Sources

These federal databases give students real data, not AI guesses.

Recommended Federal Sources for Student Research

Source / Agency	What It Provides / Why Strong	Use Case for Lesson / Sample Project
USDA Agricultural Research Service (ARS) / USDA National Agricultural Statistics Service (NASS)	ARS publishes peer-reviewed agricultural/scientific research; NASS maintains the “Quick Stats” database with publicly accessible data on crops, production, economic and demographic farm data. ARS+2USDA NASS+2	Example research project: Ask students to pull historic crop-production data for a region via NASS → then ask an AI to summarize the same trend → compare accuracy, depth, and economic interpretation.
USDA Research, Education, and Economics (REE) resources portal	Central hub for multiple USDA science & research arms: ARS, NASS, economic-research (ERS), nutrition & food-safety research, published reports and datasets – all public. ree.usda.gov+1	Good for studies on food, nutrition, agriculture, rural economics. Students research “food-environment data for your county,” then compare AI-generated summary vs. actual REE data.
USDA Forest Service Research and Development (USFS R&D) & its Treesearch	Offers extensive forest / land-use / conservation research reports, often with full-text PDFs (~60,000 documents). Perfect for environmental,	Project idea: Ask AI for “history of forest inventory methods in New England,” then have student locate an actual USFS report in Treesearch –

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publication archive	forestry, conservation, land-use, and ecological studies. USFS Research & Development	compare style, sources, and depth.
Science.gov (federal open-data gateway + search across 60+ U.S. science agencies)	Provides access to 200 M+ pages of research reports, datasets, government studies – across environment, health, agriculture, energy etc. nvcguides.libguides.com+1	Broad projects: students pick any topic (climate, water quality, public health, agriculture) → query both AI and Science.gov → compile a report with verified sources + notes on AI-vs-sourc

Parent/Teacher Companion Guide

What This Is About

Research isn't obsolete — it's more necessary than ever. But now, it requires *layered thinking*: AI for speed, humans for depth.

Your Role

Encourage healthy skepticism, ask “Where did this come from?”
 Show how to navigate a local gov site or credible source
 Model how to track down original data from second-hand summaries

Conversation Starter

“What did the AI get wrong and how did you catch it?” Let your student teach you what they found while searching.