

Workshop 2: Verifying STEM AI Outputs

Shared Group Workspace (v2) — April 18, 2026

CRAFT PD Series · Dr. Mike Borowczak & Dr. Andrea Borowczak

How this document works

- This is our LIVE collaborative doc — everyone types here at the same time.
- Sections are in [AGENDA ORDER](#). Scroll down as the workshop progresses.
- For breakout activities: find YOUR group's row (Group 1–6) and type there.
- For individual activities: find the next empty numbered row and claim it.
- The Collective AI Error Gallery at the end is a running stream — add finds any time.
- Please don't delete other groups' content. Add rows if you need more space.

CRAFT phase color legend:

C = Contextualize **R** = Reframe **A** = Assemble **F** = Fortify **T** = Transfer

8:30 · Opening — Icebreaker-

Have you ever been fooled by something AI generated? One sentence — bonus points for a funny story.

(Post in Zoom chat; overflow here if chat moves too fast.) **Contextualize — Student AI**

Snapshot

Answer honestly. These responses shape the rest of the session.

Q1 · How are your students using AI right now?

Options (pick one and add to your row below): Not at all · Secretly · With my guidance · I have no idea

#	Your Name	Grade / Subject	Pick one	One sentence of context
1.	Kylee Robinson	11-12 Forensics	Secretly ▾	ChatGPT for literally any writing, even opinion-based
2.	Dunya Bahnam	9-12 Math	I have no idea ▾	Maybe ChatGPT
3.	Isabel Lopez	8th Science	Secretly ▾	Scholars have been seen using AI to look up facts
4.	Catherine Hooker	High School Physics	I have no idea ▾	Currently I am subbing, so I'm pretty much entering the classroom blind to what the students normally do in class (especially in regards to AI usage).
5.	Tori Roper	6-12 Math	I have no idea ▾	I don't have a classroom yet, so I can't say for certain, but I've

#	Your Name	Grade / Subject	Pick one	One sentence of context
				seen a lot of homework help when I've been in other classrooms.
6.	Stephanie Garcia	7-12 Science	Secretly ▾	Taking pictures of assignments and uploading it on Chat GPT
7.	Isabella Gutierrez	7-12 Science	Secretly ▾	Students will copy and paste homework questions and directly copy what chat GPT says, including all of the extra information.
8.	Travis Melero	11th / CTE Physics	Secretly ▾	Use ChatGPT to sneak in calculations / lookup facts (both could've been a Google search)
9.	Yaneli Ruiz Gonzalez	9-12 Science	Secretly ▾	Take a picture of the assignments to get their answers
10.	Samantha Pulido	9-12 Math	Secretly ▾	My students use AI to solve problems in our math class. They use PhotoMath, Google AI mode, etc. The only AI tool that I allow students to have in my class is through a math program, Edia, but it is focused as an AI Tutor, so it will not give them the answer.
11.	Megan Edlund	9-12 Math	Secretly ▾	ChatGPT to copy answers. Also PhotoMath (if that counts)
12.	Brandi Bass	Grade 2	Not at all ▾	I use it for lesson improvement
13.	Bianca Nunez	Biology 9	Secretly ▾	I do everything on paper, but I know when I assign them homework they are using chatgpt to cheat. The long - is a dead giveaway.
14.	Ashley Garcia	7th, Math	Secretly ▾	Chat GPT, Google Gemini. Using to do their writing and math

#	Your Name	Grade / Subject	Pick one	One sentence of context
				problems and claiming they did it on their own.
15.	Chasity Childs	10th, Biology	I have no idea ▾	I've seen most students complete their work in class. I'm not sure if their using AI as a resource.
16.	Max Smith	9-12th Math	Secretly ▾	I've passed by some students using AI for assignments they weren't supposed to use it for.
17.	Travis Bourdon	9-12, Math	Secretly ▾	Some students use it discreetly, others do not. With math, whenever I see high level notation being used, it is a red flag. They tend to use it to cheat/ not do work, in place of thinking. Shortcuts
18.	Sizzinette Hernandez	10-12, Science	Secretly ▾	I know students are taking my online assignments and copy pasting answers from AI. Some will even leave in the "ChatGPT said..."
19.	Amanda del Rio Suarez	9-12 Sci	Secretly ▾	Sometimes secretly, but sometimes when we need creative ideas they are allowed with my guidance
20.	Dylan Walling	9-12, Biology	Secretly ▾	AI for speeding up finding answers to assignments.
21.	May-Lynn Montano	3rd	Secretly ▾	Chat gpt for answers and only using Google Ai for research
22.	Robin Herrera	3rd Grade/General	I have no idea ▾	I am not sure how students are using AI at this point. I feel maybe to create images or video edits.
23.	Petrina Miller	kindergarten	I have no idea ▾	We have IREADY which is a math and ELA program that students are mandated to use, but I am not sure how much AI

#	Your Name	Grade / Subject	Pick one	One sentence of context
				is involved. Not sure what they use at home, but I know they all know what tiktok and youtube is.
24.	Crystal Seeley	7th Science	Secretly ▾	Typically used for projects and to answer quick questions
25.	Lizz Holguin	9-12 Math	I have no idea ▾	I don't know how to spot AI in their work
26.			Not at all ▾	
27.	Jeff Bowlby	7-8 Science	Secretly ▾	Students use AI to auto generate responses in ELA, and Google Lens for everything in Math; They also use it for spell check, etc, but if they are on their computers I can't trust anything they types an original thought
28.	Shardae Powell	8th grade Science	Secretly ▾	Using Gauth AI in order to quickly finish math work.
29.	Karen Shiue	9-12th Science	With my gui... ▾	
30.	Desteny Becerra	7th	Secretly ▾	Maybe CHATgpt to answer through questions quickly

Q2 · Your biggest worry about student AI use

#	Your Name	What you're worried about
1.	May-Lynn Montano	That students will not do actually learning- just copying things because its easier and faster for them ,
2.	Kylee Robinson	Losing the foundational skills needed to build upon important writing/reading/math abilities.
3.	Bianca Nunez	I am scared that they will not be able to do research in the future or have any sort of critical thinking skills. AI thinks for them.
4.	Isabel Lopez	I am scared that students are using AI to do the thinking for them instead of learning the skill themselves. Or even getting too much information that they currently don't need.
5.	Isabella Gutierrez	I worry that students will use AI to think for them rather than thinking for themselves and this will decrease their problem solving skills in real life.
6.	Stephanie Garcia	I worry that since they take the easy route to solving problems they will not have the foundations needed to go to higher education and will lack problem solving skills.
7.	Sizzinette Hernandez	That students aren't connecting their thinking or seeing the value of problem solving on their own, they all want a quick fix
8.	Tori Roper	I worry about the environmental impacts of excessive AI use and the loss of academic abilities.
9.	Yaneli Ruiz Gonzalez	Depending on AI for answers and not actively learning or putting in the effort to try to learn, personally, the constant AI usage makes me worry about the environment
10.	Samantha Pulido	I am worried that my students will be so dependent on AI for finding solutions instead of increasing their critical thinking skills and processing. I always tell them I want the best for them and that using AI could hinder their growth since the best way to get better at math is practice, similar to a sport.
11.	Max Smith	Students aren't using their brains! They use AI to skip past thinking instead of struggling through problems.
12.	Desteny Becerra	I worry that students will be too dependent on this in the future. The AI will do more of the thinking than the students and that's what scares me a bit.

#	Your Name	What you're worried about
13.	Amanda del Rio Suarez	I worry that students become too dependent on ai and excessive use of ai. It puts such a big strain on our water systems, when students use ai to ask what should i have for dinner, what is 2+2, using ai as a calculator instead of just using an actual calculator it not only affects the environment but the brain being such a big muscle when you stop using certain parts of your brain, for decision making etc, you start losing those neurons.
14.	Ashley Garcia	Not allowing themselves to sit down and process. A lot of brain growth happens with problems and self reflection. Also, processing information and not accepting everything as hard truths.
15.	Lizz Holguin	Students are not trying to learn anymore just how to get answers from AI
16.	Travis Melero	Students are not learning foundational skills, including the skills needed for appropriate and efficient ai use. Communication and literacy, for example.
17.	Travis Bourdon	Students relying on AI as a crutch, hampering their future knowledge and skills; hard to iterate information when foundations are weak/nonexistent
18.	Chasity Childs	Students using AI to completely do their work and not learning anything new.
19.	Dylan Walling	Students are not learning how to properly use AI, I support the use of it, but I'm scared all they will do is copy and paste and never give good prompts.
20.	Petrina Miller	That they take the responses as gospel. AI has to be considered a resource, not an end all to be all.
21.	Dunya Bahnam	They use it to answer the questions of test or quiz without learning the topic and that doesn't give me a correct level for their understanding.
22.	Crystal Seeley	Students not understanding and knowing that they should evaluate AI responses before inputting as an answer into their responses.
23.	Megan Edlund	I'm worried my students will become way too dependent on AI and lose all their critical thinking skills.
24.	Jeff Bowlby	Foundational knowledge will be gone

#	Your Name	What you're worried about
25.	Bee James	Inaccurate and harmful misinformation, student refusal and inability to think through problems without looking them up to get a quick answer
26.		
27.		
28.	Shardae Powell	Students no longer having a stake in their learning.
29.		
30.		

9:00 · Reframe (Listen) — Poll Capture (optional)

9:15 · Reframe (Do) — AI Policy Committee Breakout

Your group is an AI policy committee. Draft 3 classroom norms for AI use that assume students WILL use AI but MUST verify outputs. Think: what does “acceptable AI use” look like in your subject?

Group 1 - HS Science

Norm #	Draft norm (Group 1)	What behavior does it encourage?	What failure does it prevent?
1	Citations	Citation accuracy/works cited	Incorrect citation formatting
2	Data privacy		
3	Understanding what AI is and isn't useful for	Scientific literacy	Confusing prompts

Group 2 - MS Science

Norm #	Draft norm (Group 2)	What behavior does it encourage?	What failure does it prevent?
1	Short/long responses need to be physically written before it's typed	Original Thought before the final product is output	Able to get what students actually know instead of what they are able to find.

Norm #	Draft norm (Group 2)	What behavior does it encourage?	What failure does it prevent?
2	AI has to be acknowledged	Honesty and accountability	Prevents plagiarism, we have to acknowledge that it is not our work.
3	'Ai has to be addressed '	Students learn how to use it with integrity and responsibility.	Students are less likely to be secretive about AI use.

Group 3 - HS Math

Norm #	Draft norm (Group 3)	What behavior does it encourage?	What failure does it prevent?
1	Honesty - Including in assignment if AI was used	Honesty: stating how you used it.	Cheating/deceit
2	Be able to show in person skills that were in the homework	Personally being able to work and solve problems.	Cheating and not learning
3	Use it as a tool to help your understanding of how to do a problem (conceptual understanding)	Doing the work yourself	Cheating / Credit without learning

Group 4 - MS Math [Note - no educators in this breakout]

Norm #	Draft norm (Group 4)	What behavior does it encourage?	What failure does it prevent?
1			
2			
3			

Group 5 - MS Non-STEM [Note - no educators in this breakout]

Norm #	Draft norm (Group 5)	What behavior does it encourage?	What failure does it prevent?
1			
2			

Norm #	Draft norm (Group 5)	What behavior does it encourage?	What failure does it prevent?
3			

 Group 6 - HS Non-STEM [Note - no educators in this breakout]

Norm #	Draft norm (Group 6)	What behavior does it encourage?	What failure does it prevent?
1			
2			
3			

 Group 7 - Elementary

Norm #	Draft norm (Group 5)	What behavior does it encourage?	What failure does it prevent?
1	Establish when it is appropriate and when it is not	Cheating, identifying good/bad use, student autonomy(rephrasing?)	dishonesty
2	Support writing and other class assignments (citations required)	Brings student work alive. Creating visuals to support writing.	plagiarism
3	Filter information: use a rubric and cite source	Critical thinking skills	Using information that is not verified or incorrect

9:30 · Break #1 (15 min)

Check Zoom chat for a deliberately wrong AI “fun fact.” Can you spot the error before we’re back? Post your catch in chat.

9:45 · Assemble — Code Error Hunt (breakout)

[Three AI-generated Python snippets](#). For each — read it, predict what it does, find the error, fix it. Log each catch on its own row. [Reflect: Difficulty of detecting code issues when you're not a domain expert? programming expert? Neither domain OR programming expert?]

Snippet links: 1 · Projectile Motion · 2 · Temperature Conversion · 3 · pH Calculation

HS Science Group 1

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1	pH calculation	Does not specify the 0-14 range Does not account for the variation in neutral pH (6.5-7.5)	Add a range for the pH classifications Understand the nuance of a neutral pH	Me... ▾
2	Records daily temps in avg, min, and max.	Did not account for days where no data was recorded/recorded as "none"	Add condition to the code to only retain data if the data is not "none"	Lo... ▾
3	Calculate the range of projectile given velocity and launch angles using the standard range equation	It is missing a degree to radian conversion	Verify outputs by comparing it to known values	Me... ▾

Group 2 - MS Science

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1	Projectile Range Calculator	Using radians versus degrees.	Did the calculation by hand.	Med... ▾
2	List daily temps, including average, minimum, maximum	"None" included where integer values should be	Relied on prior knowledge	Low ... ▾
3	pH calculations	Code will accept incorrect values & is using 7.0 as neutral	Using background chemistry knowledge	High... ▾

HS Math Group 3

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1	This program claims to make a function that calculates the range of a projectile given the initial velocity and launch angle by using the standard range equation.	User input is in degrees, but program runs calculations in radians.	Tried different inputs for angle measure, seeing what it outputs	Low ... 
2	Takes daily temperature readings and returns the average, minimum, and maximum of those readings.	Data input error/ variables not properly declared or accounted for	Won't run at first- code points to issues with variable summation	Med... 
3	Classifies the pH value as acidic, neutral or basic.	The error is that it does not take into account the pH levels that go beyond the scale. The code should have been <code>0 <= ph < 7</code> and <code>7 < ph <= 14</code> else return "not on scale"	Changed inputs to values we would not expect in pH range and observed output behavior	Low ... 

Group 4 HS Science

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1	Claims to calculate the range of a projectile given initial velocity (m/s) and launch angle (degrees). Using the standard range equation.	Your formula is almost right, but there's a subtle bug: <code>math.sin()</code> expects the angle in radians , not degrees. Right now you're passing <code>2 * angle</code> in degrees, which throws off the result.	Chat GPT. I copied and pasted the code into chatgpt with no other information, and it immediately spotted the error and gave me a correct code along with another suggestion: "If you want to make it a bit more robust, you could also	High... 

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
			validate inputs (e.g., ensure angle is between 0–90°), but the main issue was the degree-to-radian conversion.” Then I asked if the bug was a non-issue vs major issue.	
2	Claims it can calculate max, min, and avg temp for a data set.	It can’t handle words/strings.	Tried running the code with a free online compiler. Spit out an error message “TypeError: unsupported operand type(s) for +=: 'int' and 'NoneType'”	Med... ▾
3	Figures out if Ph is acidic, neutral, or basic.	Creates chemically unrealistic values because it accepts any value despite ph values being (0-14).	Asking myself if this is scientifically correct?	High... ▾

Group 5

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1				Low ... ▾
2				Low ... ▾
3				Low ... ▾

Elementary Group 7

Snippet #	What it claims to do	Error(s) found	How you verified it	Severity 
1	Bowling ball vs. feather. Content: Physics Grade 6.	Heavier objects experience more gravitational pull and therefore fall faster	For kinder: let's drop a bowling ball and feather out of the window!	Low ... ▾
2	Standard error. Math Grade	Wrong standard given for 4th grade vs. high school	Looked up 4th grade and high school standard for specific state standard in question.	Low ... ▾
3	Area Vs. Length			Low ... ▾

10:15 · Assemble (Solo) — Break Your Own AI

Ask any LLM to solve a code or math problem FROM YOUR SUBJECT AREA. Try to break it.

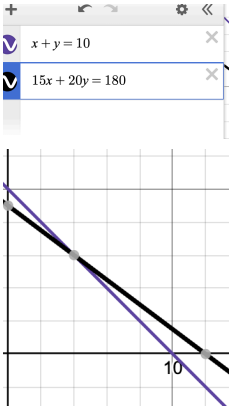
Document one error you found — or, if it was correct, exactly how you verified.

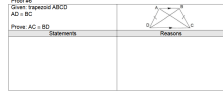
#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
1. Solo	Chasity Childs	High School Chemistry	Gemini	How many grams of water H ₂ O are produced if 10.0g of hydrogen gas H ₂ reacts with an excess of oxygen gas O ₂ ?	You can always check the math using dimensional analysis.
2. Pair	Amanda del Rio Suarez Partner: Ashley Garcia	9-12 Science	Chat gpt	An organ pipe can operate as either an open-pipe resonator or a closed-pipe resonator. If its fundamental frequency is 110 Hz as an open pipe, what will its fundamental frequency be as a closed pipe?	No errors found, good explanation.
3. Solo	Dunya Bahnam	9-12 Math	Chatgpt	The diagonals of quadrilateral ABCD intersect at E(1,4). ABCD has vertices at A(4,7) and B(-4,5). What must be the coordinates of C and D to ensure that ABCD is a parallelogram? show detailed work steps.	The answer is correct but over-detailed. None of my students would give me a detailed answer like what I got from Chatgpt.
4.	Kylee Robinson	11-12 geoscience	chatgpt	If the age of Earth was compared to a 365 day calendar year, on what day	Clarification as to what a “human” is (homo sapiens).

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
				of the year did humans appear on Earth?	
5.	Megan Edlund	11th Math	Claude	The diagram at right shows a jackrabbit jumping over a three-foot-high fence and jumps a distance of 8 feet. To just clear the fence, the rabbit must start its jump at a point four feet from the fence. Sketch the situation and write an equation that models the path of the jackrabbit. Show or explain how you know your sketch and equation fit the situation.	Ai explained the set up with coordinates, and gives a vertex. It gave a model of the graph, explained the steps of solving the problem and gave the correct answer.
6. Solo	Stephanie Garcia	7-12 Science	ChatGPT	A 12 V battery is connected to two resistors: 4 Ω and 6 Ω in parallel. What is the total current supplied by the battery?	After solving the question it was correct the current was 5A. I tried telling Chat GPT the equation they used was wrong but it gave me a correct justification.
7.	Yaneli Ruiz Gonzalez	7-12 Science	ChatGPT Gemini	A ball is thrown vertically upward at the same instant that a second ball is dropped from rest directly above it. The two balls are apart when they start their motion. Find the	Computing errors were not found but I tested to see if how explanations

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
				maximum speed at which the first ball can be thrown such that it doesn't collide with the second ball before it returns to its starting height. Treat the balls as being very small (i.e. ignore their diameters).	would differ. The main takeaway is how the formula varies by LLM, and the answer varies slightly in how the variables are written. If you taught it a certain way to be written and computed, it could be a giveaway when a student writes it differently.
8.	Travis Melero	11th CTE Physics	Gemini	Example #3: This diagram can be particularly useful for determining and explaining why only a portion of the image of the object can be seen from a given location. Complete the ray diagram below to determine which portion of the image will be visible. Circle the portion of the image that will be visible. 	Even gave a simulation visual where you could modify the mirror size. But, it did not include measurements. The spatial analysis was missing entirely.
9.	Bianca Nunez	9-12 Science	ChatGPT	A self-pollinating plant was able to increase genetic diversity. How is that possible?	This was a contradictory question since a self-pollinating plant decreases genetic diversity. However, ChatGPT was able to tell me how due to mutations in the gametes a plant causes genetic diversity. Then stated that asexual reproducing organisms create genetic diversity this way, which is true.
10.	Samantha Pulido	9-12 Math	Claude.ai	Can you solve and graph the following quadratic function: $20x^2 + 23x + 6$? Show me	Website: Quadratic Solver It is correct since I verified the solutions it gave me with the

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
				through an interactive website	solutions I had, but it did not show the steps for solving. It made an interactive website where I can visualize the math. It used different symbols than those I use in my math classroom.
11.	Tori Roper	6-12 Math	Chat GPT	What is the square root of 2420520	When plugged into a calculator, I got 1555.802. However, ChatGPT gave me 1559.0125
12.	Ashley Garcia Partner: Amanda		ChatGPT	One job pays \$15/hour and the other \$20/hour. You worked 10 hours total and earned \$180. How many hours at each job?	Process of elimination and graphing the equation answer must be intersection. $x+y=10$ $(5,5)$ $5+5=10$ valid but $5x+5y=$ $75+100=175$ Wrong. BUT $(4,6)$ $4+6=10$ $4x+6y=180$ $60+120=180$.

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					
13.	Sizzinette Hernandez	10-12 science	ChatGPT	Provide an answer in the correct number of significant figures: $0.04530 + 5.6 =$	Although the answer produced is correct, I had a problem at the beginning of the school year with significant figures. I asked ChatGPT to make me an answer key for a work sheet and it did not follow the correct adding rules or regular sig fig rules in rounding
14.	Max Smith	9-12 Math	Gemini	Can you show images describing each triangle congruence proof? (SAS, ASA, etc)	The AI just brought up the google images, which were often irrelevant/unhelpful for describing the triangle proofs.
15.	Isabella Gutierrez	9-12 Science	Chat GPT	Calculate the theoretical yield of LiCl given a starting value and balanced chemical equation	I used dimensional analysis to verify the answer. It was correct, however, chat gpt did not use dimensional

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					analysis like the students are expected to on homeworks and tests.
16.	Shardae Powell	8th Science	Chat GPT	Describe the relationship between biodiversity and sustainability in the ecosystem	Accurate response no errors
17.	Travis Bourdon	9-12 Math	Chat GPT	 Geometry Proof	First line claimed $AD \parallel BC$, which is wrong, they are congruent. Then gave $AD \cong BC$ in multiple lines. Gave extra/not needed steps. Compared to known, concise solution
18.	Dylan Walling	9-12 Biology	Chat GPT	Explain how energy and nutrients move through an ecosystem	These are 2 very similar topics. There are small differences between the two and it made the mistake of making the 2 equivalent to each other.
19.	Isabel Lopez	8th Science	ChatGPT	how many atoms are in the following equation COOH_2	Accurate response no error found but did notice repeated information in the response. "The formula COOH_2 (often written more

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					clearly as CH_2O_2, like in formic acid) contains: 1 carbon (C) atom 2 oxygen (O) atoms 2 hydrogen (H) atoms So in total, there are 5 atoms in the molecule. Quick breakdown: C (1) + O (2) + H (2) = 5 atoms total"
20.	Catherine Hooker and Crystal Seeley	Middle School Science	Gemini	Why do bath bombs bubble and fizz?	We did not include "make middle school friendly" so information provided veered into high school level content understanding but did have general information correct
21.					
22.	Jeff Bowlby	7-8 Science	Chat GPT	Describe biomagnification as it relates to suburban animal populations.	It keeps it vague enough to be technically correct. When asking for clarification about biomagnification sources, it keeps the information short and to the point. Asking for specific

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					techniques in teaching strategies it give pretty broad, normally best practice statements, but theres an odd series of comparisons that are presented that I wouldn't use as it loses the narrative.
23.	Lizz Holguin	9th Math	ChatGPT	Describe how to solve a quadratic equation using the box method	The answer was correct and the process was accurate except for repeating steps which may confuse the novice math student.
24.					
25.					
26.	May-Lynn Montano	3rd	Gemini	Matthew and his dad put up 8 six foot lengths of fence on Monday and 9 six foot lengths on Tuesday. What is the total length of the fence?	It gave steps to solve the problem. I verified it by solving the problem myself and checking the TE answer.
27.	Brandi Bass	Math 2nd	Claude ai	mara had greeting cards. she has 8 red and 8 blue draw an array to show her cards	It showed one possible only.

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
				and write a statement about the array	
28.	Desteny Becerra	7th Science	Chatgpt	Can you create an opener that'll be engaging for students at the start of the photosynthesis unit? Make it fun and somehow relatable to the students	Ecobottle made by David Latimer Have you ever kept a living thing in a tightly closed container?
29.	Bee James	6-8, science	Gemini	Provide a solution to the Urban Heat Island	"Solving this requires a multi-layered approach that changes how we build, what we plant, and how we move."" This response lacks any substance. I would expect this answer from a politician trying to appease people, not when I want an actual response on what steps can be taken to fix the UHI. It's a very Milquetoast response. Further down it provides various ideas, but it would require kids to read beyond the first paragraph

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					which is... not always easy. No citations for where the numbers are being pulled from. If we can't verify the data, we can't trust it. I had to ask it for citations and they weren't totally accurate. I don't have confidence that my students would think to do this follow up step. k
30.	Dr. Petrina	Kinder	chatgpt	Hi. Here are two California state standards for kindergarten math. Can you create a math problem that would fit under these standards? K.OA.A.1, K.OA.A.4 Prompt #2: Thank you. Can you show me a problem that would be incorrect for these two standards?	Answer: Math Problem Maya is building a tower with blocks. She already has 6 blocks in her tower. She wants her tower to have 10 blocks in all. Question: How many more blocks does Maya need to add? Teacher notes (optional): Students can: • Use counters or cubes

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					• Draw blocks • Show the equation: $6 + \underline{\quad} = 10$ Incorrect Problem Liam has 8 apples. He buys 7 more apples. How many apples does he have in all? Why this does NOT fit the standards • The numbers are too large for K.OA.A.4, which focuses on numbers within 10 and making 10. • It doesn't specifically ask students to find the missing part that makes 10 (like $6 + \underline{\quad} = 10$). • This problem fits better with later standards where students add within 20. I agree with chatgpt's assessment of

#	Your Name	Grade / Subject	LLM used	Prompt you tried	Error found (or verification proof)
					what makes this an inappropriate answer. The standard only covers numbers to 10 and the second problem has solution at 15, which is outside kinder requirements
	Robin Herrera	3rd Grade	Chatgpt		

10:40 · Assemble — Content Error Hunt (breakout) - skip

Audit AI-generated science/math explanations using the Content Audit Checklist. Check claims, verify facts, assess grade-appropriateness, spot misleading simplifications. Flag the sneakiest error for share-out.

Resource: Content Audit Checklist · AI Output Audit Workbench

Group 1

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

Group 2

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

Group 3

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

Group 4

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

Group 5

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

Group 6

Passage topic	Claim that's wrong	What's actually correct	Source used to verify	How subtle? (Obvious / Tricky / Sneaky)

11:00 · Break #2 (15 min)

Preview the Check the Machine one-pager — we're about to go deep on this.

→ CtM One-Pager

11:15 · Fortify — Check the Machine (30 min block)

The 4-step protocol: Task → Before → After → Takeaway. Facilitator runs a full cycle on screen. Then you'll do Partner Practice + Build-Your-Own customization.

Part 1 · Live Cycle (11:15 – 11:22) — facilitator-led

Follow along on your device. No capture required here — just watch.

Part 2 · Partner Practice (11:22 – 11:35)

Pair up. Each partner runs a CtM on a prompt from their subject. Partner asks: “Did you actually verify, or just skim?” Log both partners' walkthroughs below.

Pair 1

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	What are the waves of the electromagnetic spectrum	A list of the 7 electromagnetic spectrum waves	It provided context on the electromagnetic spectrum. It listed the 7 types of waves but it stated that they were given from longest wavelength to shortest. Within the list AI gave some details about each type of wave/region. It provided a “key idea” on how each wavelength differs in energy. It also provided an “easy way to remember” the order of the spectrum by providing an acronym. It also provided a teaching connection.	AI showed me that it can provide a lot of connections in terms of information rather than just flat out the answer. I wonder if it provides the same formatting for students.
B	An organ pipe can operate as either an open-pipe resonator or a closed-pipe resonator. If its fundamental frequency is 110 Hz as an open pipe, what will its	A number that is in hertz or HZ	It gave me a formula, and a number with the hertz unit	I learned the step by step break down of the mathematical relationship between open and closed pipe resonator with the same

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
	fundamental frequency be as a closed pipe?			formula given in the lesson.

Pair 2

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	What question AI is asked about the plant life cycle?	Expectations are visuals and maybe video. When working with ELL students, visuals are very much needed.	It said seed → sprout → plant → flower → new seeds.)	It does not provide visuals of the steps of the plant life cycle. Need to more specific about the prompt request.
B	What specific science question or command did you give the AI? Paste your prompt here so you remember exactly what you asked about EM waves.	Think about what you already know about the EM spectrum. Based on your science notes and brainpower, what facts do you expect to see? (Example: Should the wavelength be long or short? Is the frequency high or low?)	Read the answer carefully. Does it match your science knowledge? Highlight any parts that seem off; like if it mixes up Gamma rays and Radio waves or gives a weird explanation for how light travels.	Reflect on the results: (a) Did the AI hallucinate a science fact or get a calculation wrong? (b) Did this help you remember a concept better, like the relationship between wave energy and frequency?

Pair 3

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Find the diagonal of a rectangle with a base of 8 and a height of 6	Explain the pythagorean theorem, and how it is applied to the problem	$8^2 + 6^2 = c^2$. $64 + 36 = 100$. The answer should be 10.	The AI will not explain its process/how it solved unless we explicitly ask it to do so.

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
B				

Pair 4

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A				
B				

Pair 5

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Explain if the mass changes when ice melts into water	Mass does not change- this is a physical change	No mass change. Physical change. Density differences. Common misconceptions	Limitations, might take inquiry components of lesson away, so could best be utilized at end of unit or end of lesson
B	What is the difference between photosynthesis and cellular respiration?	Location, processes, energy sources	Key points Enrichment questions Types of organisms that can do the cellular processes Relationship to the Carbon Cycle	Would be be great to use as a study guide

Pair 6

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A- Stephanie Garcia	What is the difference between series and parallel circuits	Parallel has multiple branches while series has one	In a series circuit , components are connected in a single path, so the same current flows through all of them. In a parallel circuit , components are connected across multiple branches, so the voltage is the same across each branch but current is divided among them. Plus key differences in V I & R	It gives good information but went deeper than I thought it would which was interesting
B				

Pair 7

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A				
B				

Pair 8

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Science history AI fact telephone game 1) Tell the AI to create an incorrect fact about a major historical scientist	Outcome: - No clear NGSS alignment - Bias: Canon White-Male European (honorary Madame Curie inclusion) - No clear instructions for the activity.		

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
B				

Pair 9

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Explain geologic history in a metaphor of a 365 day calendar year.	Convert 4.5 bil year Earth history into a 365 day ratio.	A calendar year showcasing several geologic time periods of importance (first mammal, etc)	Does not prompt any actual student activity or chance for contribution.
B	Explain KE, GPE, EPE, ThE, and how they relate to energy transformations.	A diagram or visual, or some mention of the law of conservation of energy	Explanation of a KE calculation	I should have specified that I was looking for more conceptually and students would not be completing calculations for KE

Pair 10

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A				
B				

Pair 11

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Compare a 'good' vs a 'bad' geometric proof.	A proof that uses mathematical language incorrectly vs correctly.	A proof that uses non-mathematical language vs a proof that uses mathematical language.	The AI is assuming little base knowledge of geometric proofs, so that 'bad' proof uses words like "looks

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
				like” rather than explaining how to properly use the terms.
B	Explain what the solutions for a quadratic function represent.	Expected that it would have an image that shows where the solutions would be on a graph to provide a visual. Expected that it would be descriptive in its explanation of what the solution means.	Explained that solutions are known as roots and zeros (loved this). Then continued to explain in simpler terms what the solutions mean along with providing the different types of solutions.	Gives a basic overview of the solutions.

Pair 12

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	Can you explain in detail how fossils are formed?	Fossils are formed from sedimentary rocks, where an organism has rock particles layered on top of it and eventually minerals fill in where the original bones used to be.	1. Death of an organism 2. Rapid Burial 3. Decay and preservation of hard part 4. Sediment buildup and compaction 5. Mineralization (permineralization) 6. Uplift and exposure	Since I used the phrase “In detail” the model went above and beyond to the point it would likely be hard to comprehend for an average learner of the subject.
B	What are the differences between xylem and phloem?	Xylem transports water and minerals up the stem. Phloem transports sugars and hormones throughout the plant	Gemini gave information about the structures, functions, and key differences	Gemini went in depth about the differences

Pair 13

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A	What are the steps to uncovering fossils?	Statement about tools, what to wear when looking for fossils, things to bring,	How fossils are formed, examples of fossils, what a specific animal ate	Unrelated information and too specific information about fossils that weren't mentioned.
B	Explain as if talking to a 7th grader the signs of a chemical reaction that occur when roasting a marshmallow.	Knowledge about what a chemical reaction is.	AI produces a list of the five signs of a chemical reaction but also provides "texture," that "sometimes," shows up in a chemical reaction	It provides accurate information but also extra information, i.e. texture, that is completely unrelated

Pair 14

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A				
B				

Pair 15

Partner	1 TASK (what we asked)	2 BEFORE (what we expected)	3 AFTER (what AI produced)	4 TAKEAWAY (what the gap reveals)
A Chasity Childs	Make me a worksheet for 10th grade Chemistry students for a dimensional analysis module.	I expect a mix of higher and lower level questions about the topic.	AI gave me higher learning level questions compared to what would be appropriate for a high school student.	I should be more specific in my prompt when I ask Gemini.
B				

Part 3 · Build Your Own (11:35 – 11:45)

Customize the editable CtM template for your students: grade-level language, sample task from your subject, student-facing instructions. Paste a short summary below so we can share across groups.

→ CtM Template

#	Your Name	Grade / Subject	Sample task you plugged in	One change you made to the template
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

#	Your Name	Grade / Subject	Sample task you plugged in	One change you made to the template
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

11:45 · Transfer — Pair-Share Commitment (“I will...”)

With your partner: one concrete step you'll take to build a verification-first culture this semester. Write “I will...” not “I might....” Then complete the post-survey.

#	Your Name	My “I will...” commitment	By when?	One thing I'm still wrestling with
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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15.				
16.				
17.				
18.				
19.				
20.				
21.				

#	Your Name	My “I will...” commitment	By when?	One thing I'm still wrestling with
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

→ Open Post-Survey

 Collective AI Error Gallery (running stream)

Add ANY interesting AI error you catch today — from breakouts, from chat, from your solo session. This becomes our shared reference of “Things AI Gets Wrong.”

#	Found by	Type (Code/Math/Science/Logic)	What AI said	What's actually true	Why AI got it wrong (your theory)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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20.					

Your students don't need to be AI experts. They need to be AI skeptics. That's a skill you just learned to teach.