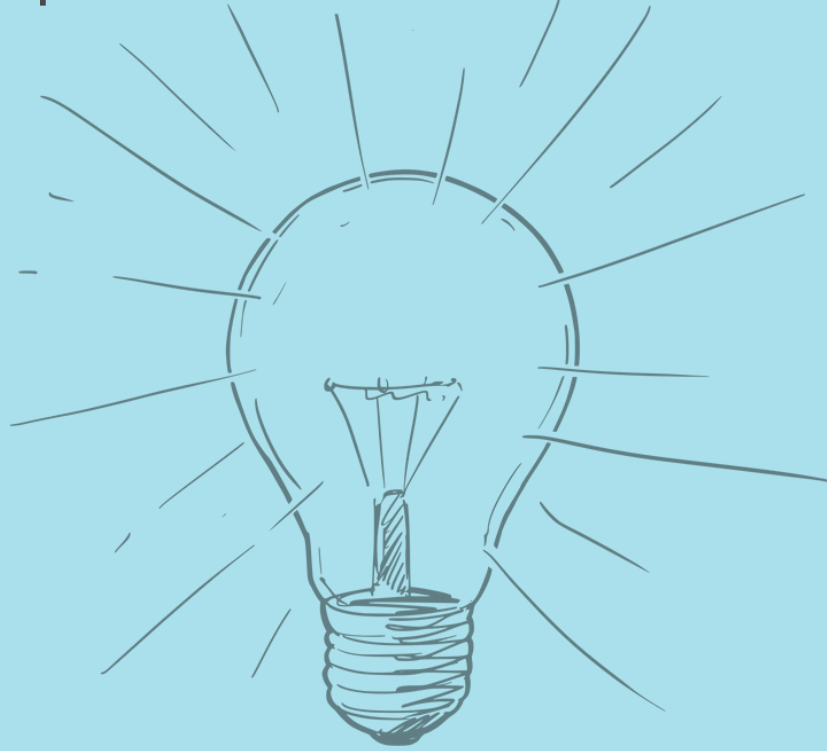


15 AI Prompts for Science Fair Success

Copy-and-Paste Prompts to Guide Your Child from Idea to Presentation



Adapted from Saving Curiosity by Maharlika Connor

AI Can Be Your Child's 24/7 Science Coach

THE SECRET MOST PARENTS MISS ABOUT AI HELP

When your child types "help me with my science fair project," they get generic advice. A well-structured prompt transforms AI into a personalized coach.

- **Vague questions get vague answers.** Specificity is key.
- These 15 prompts use a **proven structure** that tells AI exactly what is needed.
- Result: **Specific, useful responses** that actually move the project forward.
- **The Golden Rule:** AI works best as a **learning partner**, not a shortcut. Your child should always understand, revise, and own the final work.

*Notice that many of these prompts specifically ask the AI not to write the final product. Instead, they ask for outlines, sentence starters, feedback, and questions. This keeps your child in the driver's seat—thinking, deciding, and creating—while AI handles the coaching. Use these prompts to spark thinking—not replace it.

The Ultimate Test

"If a science fair judge asks your child about their project, they should be able to explain every part of it confidently."

Where These AI Prompts Came From

This guide is adapted from *Saving Curiosity: Reinventing Science Fairs for the AI Era* by Maharlika Connor. The book provides a step-by-step framework for science fair success, and these prompts follow that same process:

Brainstorming (Prompts 1-3)

Discover a topic your child actually cares about.

Research & Hypothesis (Prompts 4-6)

Build background knowledge and make a prediction.

Experiment Design (Prompts 7-9)

Plan the procedure and gather materials.

Data Analysis (Prompts 10-12)

Make sense of results and draw conclusions.

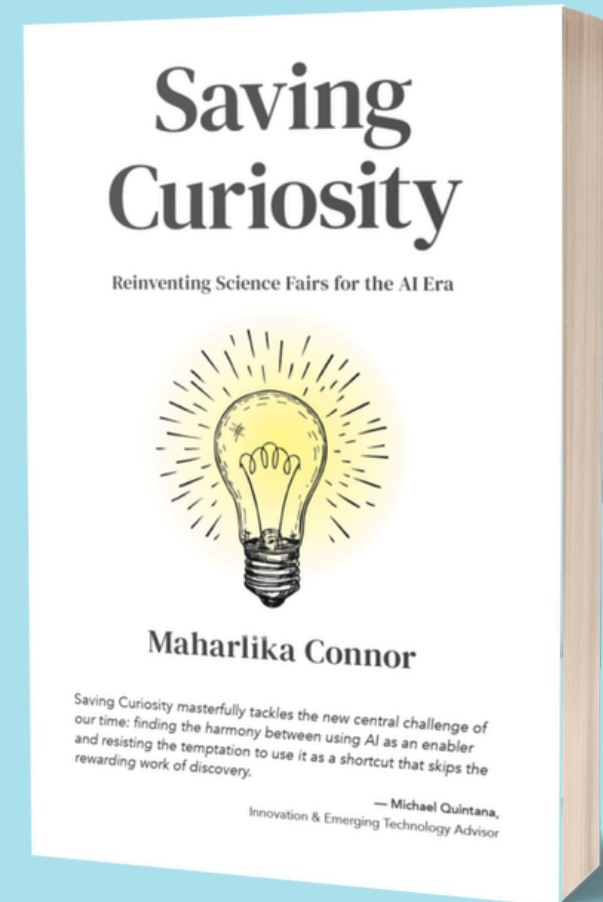
Presentation (Prompts 13-15)

Practice explaining the work with confidence.



PRO TIP:

You don't need to use every prompt —just pick the ones that match where your child is in the process. Starting late? Skip ahead. Stuck on one stage? Use multiple prompts from that section.



How to Use This Guide

STEP ONE

Choose a prompt that matches what your child needs help with right now.

STEP TWO

Fill in the blanks. Every prompt has [brackets] where your child adds their specific details—grade level, topic, interests, timeline, and more. The more specific the details, the better the AI's response.

STEP THREE

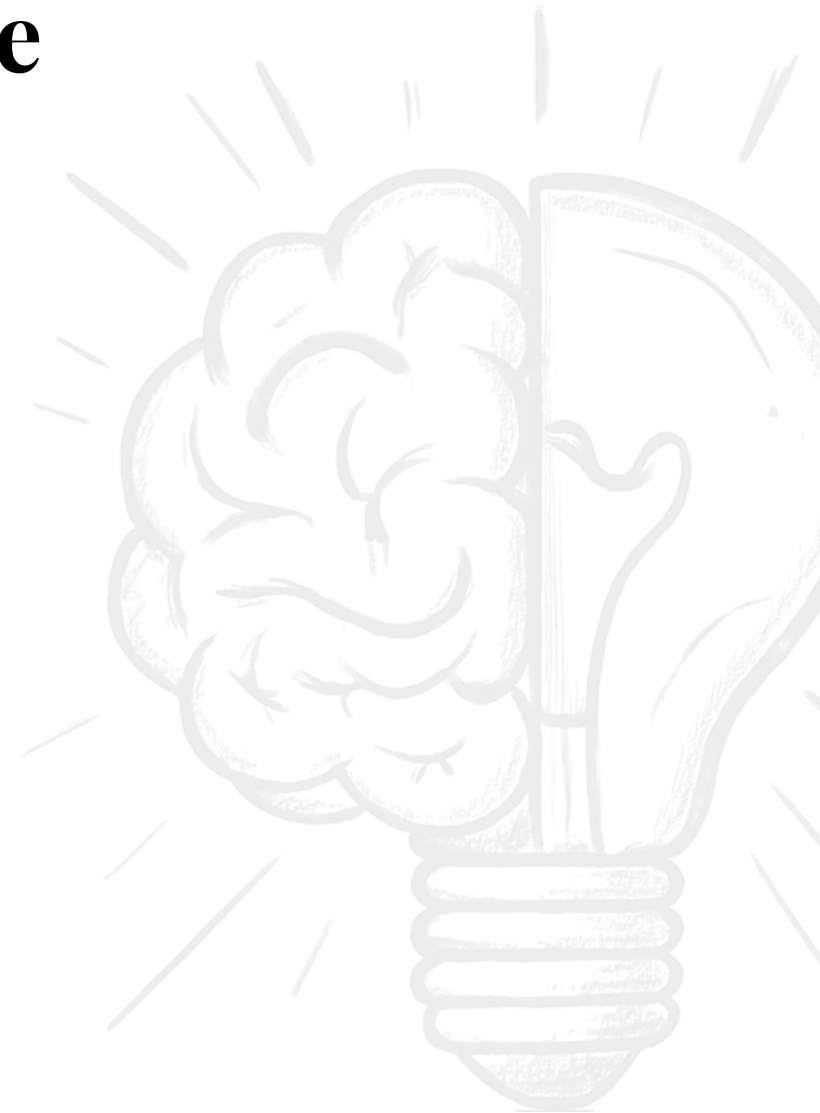
Copy and paste the completed prompt into your AI tool of choice. These prompts work with ChatGPT, Claude, Gemini, Copilot, or any conversational AI.

STEP FOUR

Read the response together. Don't let your child use the AI alone. Sit with them, read the response, and ask: "Does this make sense? What would you add or change?"

STEP FIVE

Follow up. AI works best as a conversation. If the response isn't quite right, teach your child to say: "Can you explain that differently?" or "That's not quite what I meant—here's more context."



The Anatomy of a Great AI Prompt

SIX PARTS THAT MAKE EVERY PROMPT WORK

Every prompt in this guide follows the same framework. Once your child learns this structure, they can write their own prompts for any subject.

GOAL

What do you want to achieve?

CONSTRAINTS

What rules or limits to follow?

ROLE

Who should the AI pretend to be?

OUTPUT

What format do you want?

CONTEXT

What background info is needed?

tone

How should it sound?

Stage 1: Brainstorming

DISCOVER A TOPIC YOUR CHILD ACTUALLY CARES ABOUT

PROMPT #1

Find a Topic Based on Interests

*Copy and paste this text into
the AI program of your
choice, replacing the [text in
brackets] with information
particular to your child*



GOAL:

I need help brainstorming science fair project ideas.

ROLE:

Act as a friendly science teacher who loves helping kids discover cool experiments.

CONTEXT:

- I'm a [grade level] student
- My interests include [sports/animals/video games/cooking/space/other]
- I have about [X weeks] to complete the project
- Our science fair requires [experiment/research project/engineering design]

CONSTRAINTS:

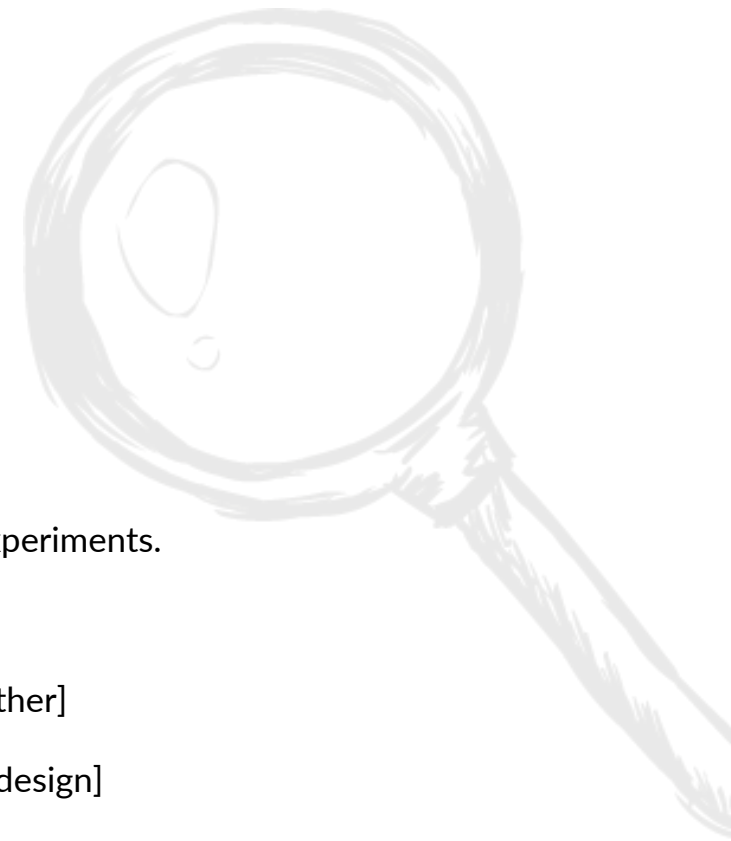
- Suggest projects I can do at home without expensive equipment
- Avoid projects that require dangerous chemicals or fire
- Keep ideas age-appropriate and achievable

OUTPUT:

Give me 5 project ideas as a numbered list. For each idea, include a one-sentence description and one question I could test.

tone:

Encouraging and excited, like you're helping me discover something cool.



Stage 1: Brainstorming

DISCOVER A TOPIC YOUR CHILD ACTUALLY CARES ABOUT

PROMPT #2

Turn a Wonder into a Testable Question

Copy and paste this text into the AI program of your choice, replacing the [text in brackets] with information particular to your child



GOAL:

I need help turning my idea into a testable science fair question.

ROLE:

Act as a science fair coach who helps students design real experiments.

CONTEXT:

- I'm curious about [topic or observation]
- I noticed that [what sparked your curiosity]
- I want to understand [what you hope to learn]

CONSTRAINTS:

- The question must be something I can actually test or measure
- It should have a clear independent variable (what I change) and dependent variable (what I measure)
- Keep it focused enough to complete in [X weeks]

OUTPUT:

Give me 3 versions of a testable question, ranked from simplest to most advanced. Explain why each one works as a testable question.

tone:

Supportive and patient, like a coach helping me think through my idea.



Stage 1: Brainstorming

DISCOVER A TOPIC YOUR CHILD ACTUALLY CARES ABOUT

PROMPT #3

Check If My Idea Is Original Enough

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*



GOAL:

I need help checking if my science fair idea is original or overdone.

ROLE:

Act as a science fair judge who has seen thousands of projects.

CONTEXT:

- My project idea is: [describe your idea]
- I'm in [grade level]
- I want to stand out, but also pick something I can actually do

CONSTRAINTS:

- Be honest—tell me if this is overdone
- If it's common, suggest a unique twist that would make it more interesting
- Don't discourage me; help me improve the idea

OUTPUT:

Rate my idea's originality (Common / Moderate / Unique), explain why, and give me 2 suggestions to make it more original.

tone:

Honest but encouraging, like a mentor who wants me to succeed.



PROMPT #4

Explain the Science Behind My Topic

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help understanding the science behind my project topic.

ROLE:

Act as a patient science tutor who explains complex ideas simply.

CONTEXT:

- My science fair topic is: [your topic]
- I'm in [grade level]
- I already know: [what you understand so far]
- I'm confused about: [what you don't understand]

CONSTRAINTS:

- Explain at a [grade level] reading level
- Avoid jargon—if you use a science term, define it
- Use real-world examples I can relate to

OUTPUT:

Explain the key science concepts in 3-4 short paragraphs. End with 2-3 questions I should research further.

TONE:

Patience and clear, like a tutor who never makes me feel dumb for asking.



Stage 2: Research & Hypothesis

BUILD THE SCIENTIFIC FOUNDATION FOR YOUR PROJECT

PROMPT #5

Write a Strong Hypothesis

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help writing a hypothesis for my science fair project.

ROLE:

Act as a science teacher who helps students make clear predictions.

CONTEXT:

- My research question is: [your testable question]
- Based on my research, I think [your initial guess and why]
- The variable I'm changing is: [independent variable]
- The variable I'm measuring is: [dependent variable]

CONSTRAINTS:

- Use the "If... then... because..." format
- Make sure it's a prediction I can actually test
- Keep it one sentence

OUTPUT:

Give me 2 versions of my hypothesis—one simple and one more detailed. Explain what makes a hypothesis strong vs. weak.

TONE:

Encouraging, like a teacher who's proud I'm thinking scientifically.



Stage 2: Research & Hypothesis

BUILD THE SCIENTIFIC FOUNDATION FOR YOUR PROJECT

PROMPT #6

Find Reliable Sources

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help finding reliable sources for my science fair research.

ROLE:

Act as a research librarian who helps students find trustworthy information.

CONTEXT:

- My topic is: [your topic]
- I need to write a background research section for my report
- I've already looked at: [any sources you've found]
- I'm having trouble finding: [what's missing]

CONSTRAINTS:

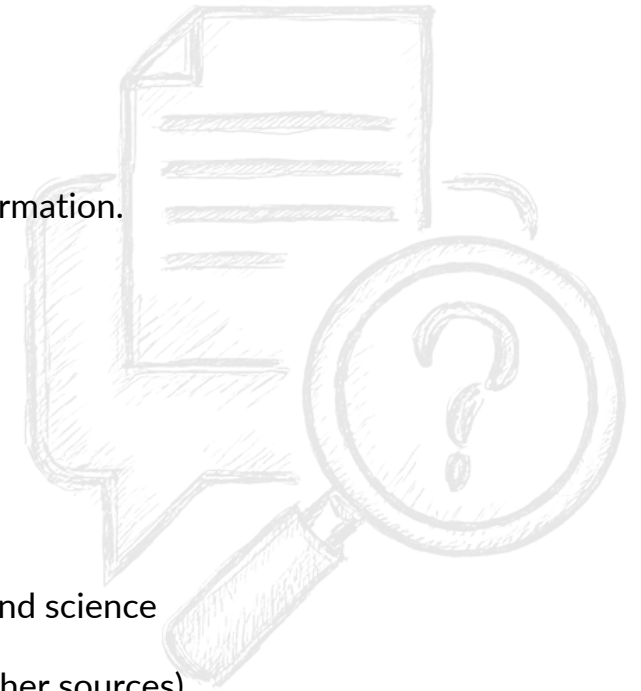
- Suggest sources appropriate for a [grade level] student
- Prioritize educational websites (.edu), government sites (.gov), and science organizations
- Avoid Wikipedia as a primary source (but it's okay for finding other sources)

OUTPUT:

Give me 5 specific search terms to try, plus 3 types of reliable sources I should look for. Explain how to tell if a source is trustworthy.

TONE:

Helpful and practical, like a librarian who loves research.



Stage 2: Research & Hypothesis

BUILD THE SCIENTIFIC FOUNDATION FOR YOUR PROJECT

Stage 3: Experiment Design

PLAN YOUR PROCEDURE AND TROUBLESHOOT PROBLEMS

PROMPT #7

Design My Experiment Step-by-Step

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*



GOAL:

I need help designing a clear procedure for my experiment.

ROLE:

Act as a scientist who designs experiments that others can replicate.

CONTEXT:

- My research question is: [your question]
- My hypothesis is: [your hypothesis]
- I have access to these materials: [list what you have]
- I have [X weeks] to complete the experiment

CONSTRAINTS:

- Steps must be specific enough that someone else could repeat my experiment exactly
- Include how many trials I should run (at least 3)
- Identify what I need to keep constant (controlled variables)
- Keep it safe for a [grade level] student to do at home

OUTPUT:

Write a numbered procedure with 8-12 steps. Then list: Materials Needed, Controlled Variables, and Safety Considerations.

TONE:

Precise and organized, like a real scientist writing a protocol.



Stage 3: Experiment Design

PLAN YOUR PROCEDURE AND TROUBLESHOOT PROBLEMS

PROMPT #8

Create a Data Collection Table

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help creating a table to record my experiment data.

ROLE:

Act as a data scientist who organizes information clearly.

CONTEXT:

- My experiment tests: [what you're testing]
- My independent variable is: [what you're changing]
- My dependent variable is: [what you're measuring]
- I'm doing [number] trials for each condition

CONSTRAINTS:

- Include columns for trial number, conditions, measurements, and observations
- Add a row for averages
- Make it simple enough to fill in by hand

OUTPUT:

Create a data table I can copy. Then explain what each column is for and why I need multiple trials.

tone:

Organized and helpful, like a teacher showing me how scientists keep records.



Stage 3: Experiment Design

PLAN YOUR PROCEDURE AND TROUBLESHOOT PROBLEMS

PROMPT #9

Troubleshoot an Experiment

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

My experiment isn't working as expected and I need help figuring out why.

ROLE:

Act as a patient lab mentor who helps students learn from mistakes.

CONTEXT:

- My experiment is: [describe your experiment]
- What I expected to happen: [your hypothesis]
- What actually happened: [your results]
- I've already tried: [any fixes you attempted]

CONSTRAINTS:

- Don't just give me the answer—help me think through it
- Suggest what variable might be causing the problem
- Remind me that unexpected results are still real science

OUTPUT:

Ask me 3 diagnostic questions to help identify the problem. Then give me 3 possible explanations and how to test each one.

tone:

Calm and reassuring, like a mentor who knows that failure is part of science.



PROMPT #10

Understand What My Data Means

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*



GOAL:

I need help understanding what my experiment results mean.

ROLE:

Act as a data analyst who helps students interpret their findings.

CONTEXT:

- My hypothesis was: [your hypothesis]
- Here is my data: [paste your data or describe the pattern]
- I noticed: [any patterns you see]
- I'm confused about: [what you don't understand]

CONSTRAINTS:

- Explain in terms a [grade level] student can understand
- Tell me whether my data supports or contradicts my hypothesis
- Help me understand WHY I might have gotten these results

OUTPUT:

Summarize what my data shows in 2-3 sentences. Then explain whether my hypothesis was supported and what that means scientifically.

TONE:

Curious and analytical, like a scientist excited to discover what the data reveals.



Stage 4: Data Analysis

MAKE SENSE OF RESULTS AND DRAW CONCLUSIONS

PROMPT #11

Choose the Right Graph

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help deciding how to display my data visually.

ROLE:

Act as a data visualization expert who helps students create clear graphs.

CONTEXT:

- My independent variable is: [what you changed]
- My dependent variable is: [what you measured]
- My data looks like: [describe—numbers, categories, over time, etc.]
- I have [number] data points

CONSTRAINTS:

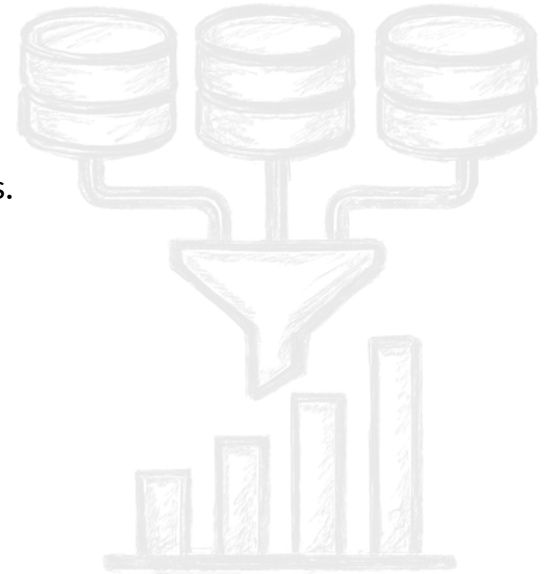
- Recommend a graph type I can make in Google Sheets or Excel
- Explain WHY that graph type fits my data
- Keep it simple—I'm in [grade level]

OUTPUT:

Recommend one graph type and explain why it works. Give me step-by-step instructions to create it, and tell me what to label on each axis.

TONE:

Practical and clear, like a teacher showing me exactly what to do.



Stage 4: Data Analysis

MAKE SENSE OF RESULTS AND DRAW CONCLUSIONS

PROMPT #12

Write My Conclusion

Copy and paste this text into the AI program of your choice, replacing the bracket text with information particular to your child



GOAL:

I need help writing the conclusion section of my science fair report.

ROLE:

Act as a science writing coach who helps students communicate their findings.

CONTEXT:

- My research question was: [your question]
- My hypothesis was: [your hypothesis]
- My results showed: [summarize key findings]
- My hypothesis was [supported/not supported] because: [why]

CONSTRAINTS:

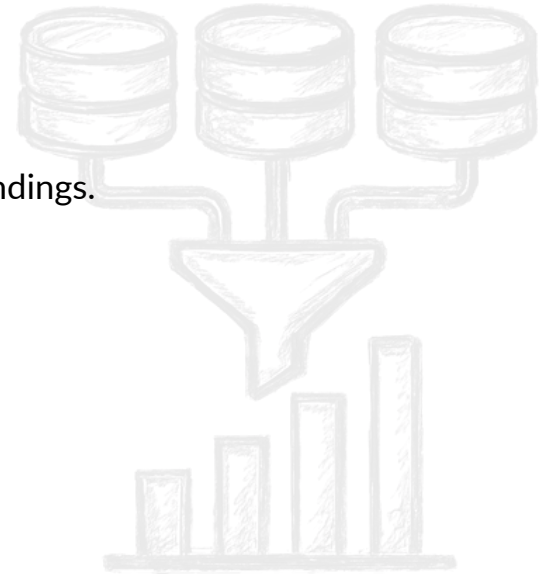
- Do NOT write it for me—give me an outline and sentence starters
- Include what I learned, sources of error, and ideas for future experiments
- Keep it to one paragraph (5-7 sentences)

OUTPUT:

Give me a paragraph outline with sentence starters I can fill in. Then give me one example of a strong conclusion sentence.

TONE:

Encouraging, like a writing coach who helps me find my own words.



Stage 4: Data Analysis

MAKE SENSE OF RESULTS AND DRAW CONCLUSIONS

Stage 5: Presentation

PRACTICE EXPLAINING YOUR WORK WITH CONFIDENCE

PROMPT #13

Practice Judge Questions

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*

**GOAL:**

I need help preparing for questions judges might ask about my project.

ROLE:

Act as a science fair judge who asks tough but fair questions.

CONTEXT:

- My project is about: [your topic]
- My main finding was: [your key result]
- I'm nervous about: [what you're worried judges will ask]
- I'm in [grade level]

CONSTRAINTS:

- Ask questions a real judge would ask
- Include both easy questions and challenging ones
- Don't be mean—be rigorous but encouraging

OUTPUT:

Give me 8 practice questions, organized from easiest to hardest. For the 3 hardest questions, give me a hint about how to approach the answer.

tone:

Professional but kind, like a judge who wants to see me succeed.



Stage 5: Presentation

PRACTICE EXPLAINING YOUR WORK WITH CONFIDENCE

PROMPT #14

Write My 2-Minute Presentation Script

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*

**GOAL:**

I need help writing a short speech to introduce my project to judges.

ROLE:

Act as a presentation coach who helps students speak clearly and confidently.

CONTEXT:

- My project title is: [your title]
- My research question was: [your question]
- My key finding was: [your main result]
- The most interesting part is: [what excites you about it]

CONSTRAINTS:

- Keep it under 2 minutes (about 250-300 words)
- Do NOT write the whole thing—give me an outline with key phrases
- Include a strong opening hook to grab attention
- End with why my project matters

OUTPUT:

Give me a presentation outline with 5 sections: Hook, Question, Method, Results, and Why It Matters. Include 2-3 key phrases for each section.

tone:

Confident and engaging, like a TED Talk for kids.



Stage 5: Presentation

PRACTICE EXPLAINING YOUR WORK WITH CONFIDENCE

PROMPT #15

Calm My Science Fair Nerves

*Copy and paste this text into
the AI program of your
choice, replacing the bracket
text with information
particular to your child*



GOAL:

I'm nervous about presenting my science fair project and need encouragement.

ROLE:

Act as a supportive mentor who has helped many students through presentations.

CONTEXT:

- My project is about: [your topic]
- I'm nervous because: [what worries you—forgetting words, tough questions, etc.]
- I've worked on this project for: [how long]
- The science fair is in: [how many days]

CONSTRAINTS:

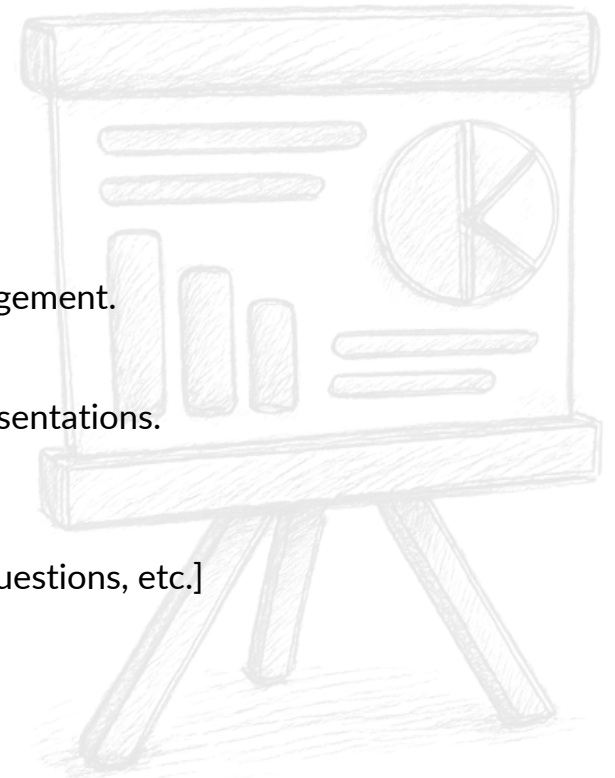
- Don't just say "you'll be fine"—give me actual strategies
- Help me remember that I know my project better than anyone
- Remind me that judges want to see me succeed

OUTPUT:

Give me 3 quick calming strategies I can use right before presenting. Then give me 3 confidence-boosting reminders about why I'm prepared.

TONE:

Warm and reassuring, like a coach right before the big game.



Quick Tips for Parents

HOW TO SUPPORT YOUR CHILD'S AI-ASSISTED LEARNING

1 Sit with your child
Read AI responses together and discuss what makes sense. AI works best as a conversation.

2 Ask reflective questions
Don't just accept the output. Ask:
"Does this make sense? What would you change?"

3 Customize every prompt
Fill in every bracket with specific details.
Generic input = Generic output.

4 Encourage follow-up questions
Teach your child to push back:
"Can you explain that differently?"

5 Start a new chat for each stage
Keeps the AI focused and prevents confusion from earlier conversations.

6 Apply the confidence test
If a judge asks about the project, your child should be able to explain every part confidently.

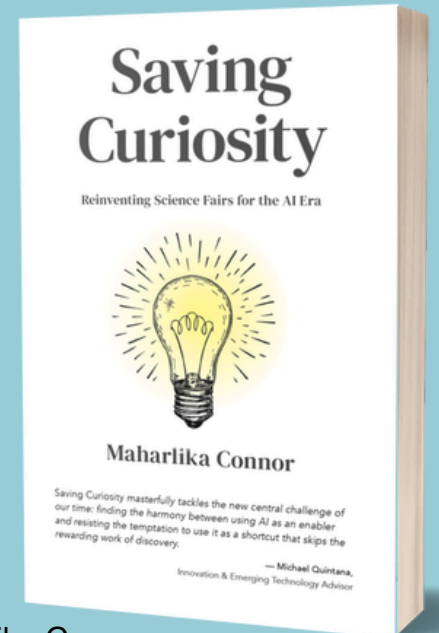
Transform Science Fairs from Stressful to Successful

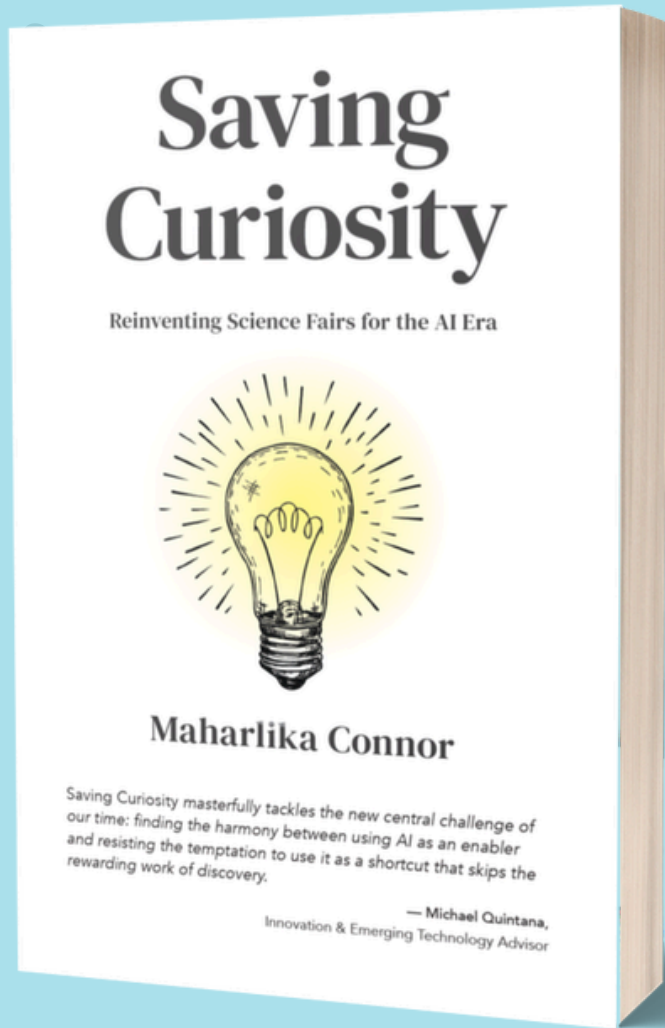
THE GOAL

Help your child become a question-asker, a maker, an innovator, and a lifelong learner.

Next Steps

1. Choose one AI prompt to try today
2. Get the full book to read more
3. Watch your child's confidence grow





ABOUT THE BOOK

These AI prompts are just a sample from ***Saving Curiosity: Reinventing Science Fairs for the AI Era*** by Maharlika Connor.

The full book includes:

- Month-by-month planning guides for the entire science fair journey
- Strategies for parents who are new to science fairs
- Frameworks for teachers running fairs with limited resources
- Ideas for communities investing in young innovators
- A vision for science fairs that celebrate discovery over stress

Coming soon to Amazon.com