

Building reasoning skills in an AI world

Practicing the skills that make learning stick

Tips for parents



Did you know?

Reasoning is the process of using information to form ideas and conclusions.

When kids go a step further by questioning those conclusions, looking for mistakes, or weighing different solutions, they are using critical thinking.*

Reasoning skills grow through effort. Kids can repeat an answer (from AI, an internet search, or a friend) without understanding the reasoning behind it. However, figuring out a math problem, organizing an essay, or defending an opinion helps kids strengthen the mental muscles they need to reason and think critically.

AI often does not show the reasoning behind its responses. Many AI tools are designed to deliver polished responses in seconds. AI tools rarely explain where the information comes from, why some sources were selected over others, or what other decisions were

made to generate a response. This prevents kids from seeing the important mental steps that build reasoning skills.

AI can limit kids' opportunities to build reasoning skills. Research shows that when people rely on AI to "think" for them, they no longer practice skills like gathering information, problem-solving, or independently completing tasks.**

You can prompt AI to support, rather than discourage, your reasoning skills. Many AI tools' default behavior is to give you the answer immediately. But, if you ask it to, it can help you reason.

*Based on definitions from the APA Dictionary of Psychology

**The impact of generative AI on critical thinking: Self-reported reductions in cognitive effort and confidence effects from a survey of knowledge workers by Lee et al., 2025.

What to notice

If your kids struggle to explain their thinking.

When kids say “because that’s what the AI said” instead of walking through steps or evidence, it’s a sign the reasoning process may have been skipped.

If AI tools are helping kids practice reasoning skills.

Some AI tools that are designed specifically to help kids learn don’t just give them the answer. Instead, they may offer kids probing questions to help them think through a problem or provide materials to help work through it on their own.

What you can do: Conversations to build reasoning skills

With your kids:

We recommend these activities for kids ages 10-14. But you know your kid best! If these are relevant to you, use them!

– **Conversation starter:** Ask your kid about something they chose this week (what to wear, what homework to work on first, how to respond to someone) and ask, “What other options did you consider?”

– **Activity: Reverse engineer the answer**

– Think of a question that requires reasoning to answer, like, “Who is the most impactful character in [a book your kid recently read]?” Then ask your kid: How might someone figure this out?

Guide your kid with prompts like:

- What information would someone need to answer this?
- What criteria might they use to decide on an answer?
- Is there another way someone could have reached a different conclusion?

You could use AI to answer the question and then discuss with your kid how AI found the answer. Or you could do this without AI. If you use AI, make sure to let your kid know, so you model transparency.

– **Practice prompts that support reasoning.**

Sometimes teachers allow AI for schoolwork. To help your kid understand how AI can help, rather than undermine their reasoning skills, try some prompts out together. For example:

- Instead of: “Solve the equation $4x + 5 = 13$,” you can prompt the AI with: “Help me solve the equation $4x + 5 = 13$. Don’t give me the answer. Walk me through the problem step-by-step and ask me questions to help me think through my reasoning.”
- Instead of: “Why does an object keep moving unless something stops it?” try: “We’re learning about forces and motion. I know objects don’t just stop on their own, but I’m confused about why. Can you give me a real-life example to help me understand this, and give me small hints instead of the full explanation?”

– **Activity:** For extra practice reasoning, give kids a task to do around the house that they’ve never done before (and that you’re okay with them making a few missteps on!), like planning a homemade dinner for the family (with a budget!), packing a suitcase for a five-day trip, or replacing a cabinet handle. Tell them they can’t use AI or the internet to help them figure it out, they need to brainstorm, consider different ideas, and use trial and error. When they’ve completed the task (successfully or unsuccessfully), have them walk you through the process they took.



Find more in our Parent Tip Sheet Library! For more detailed information, including data sources, check out the full report: A new direction for students in an AI world: Prosper, Prepare, Protect.