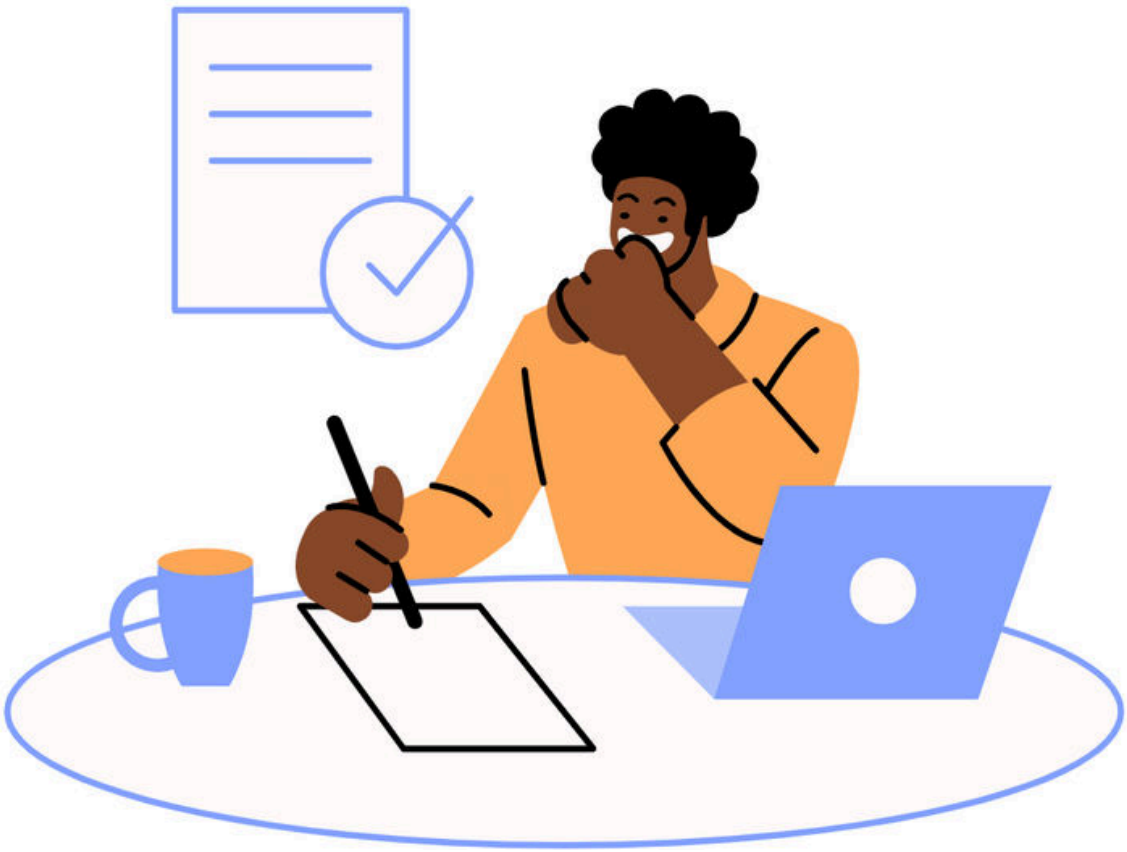

Boosting Student Engagement with AI

Practical Ideas and Prompts for Teachers

www.educatorstechnology.com

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Introduction

Recently I read two interesting books on AI: Teaching Effectively with ChatGPT by Dan Levy and Angela Pérez Albertos and the second edition of EdTech Essentials by Monica Burns. Both books share practical ways to use AI and technology to boost engagement and make lessons more interactive

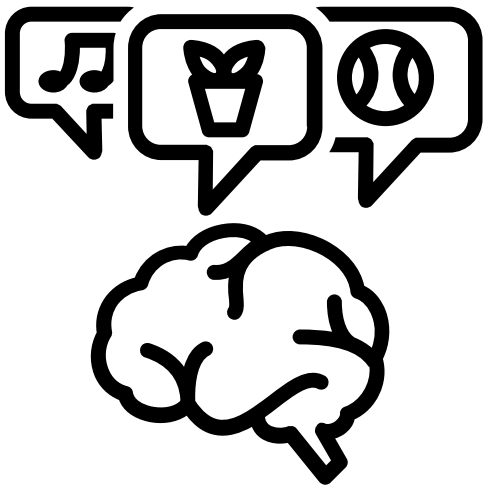
Inspired by these insights, I created the ideas and prompts in the following pages. Try them as you plan your next lesson, experiment, adapt them to your context, and see how they can spark curiosity and get students actively involved in learning.

By sharing these tips, my goal is to help you go beyond simply using AI to save time. I want to give you ideas that turn lessons into richer experiences, moments where students think deeply, explore new connections, and stay actively engaged.

By Med Kharbach, PhD

To be clear, the presence of AI in our lives isn't brand new. Many educators have used tools that employ adaptive AI to give students supporting resources as they answer review questions in an online tool, or to adjust to a student's needs in response to a baseline assessment. Generative AI is different. This type of artificial intelligence generates content and can include images, videos, music, and text. Instead of searching for pre-existing content, like using a search engine, generative AI creates content by combining information from a variety of sources.

Burns,Monica. EdTech Essentials: 12 Strategies for Every Classroom in the Age of AI (p. 11). (Function). Kindle Edition.



1

Turn Student Interests into AI-Powered Activities

Start with what students care about

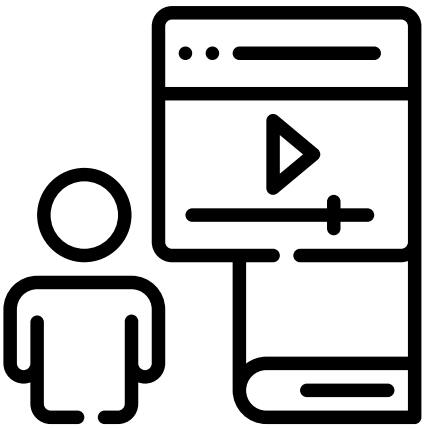
Before asking AI for lesson ideas, get to know your students' interests. Casual chats, class discussions, quick polls, and short surveys are all great ways to find out what excites them.

Use AI to generate activity ideas

Once you have a good sense of their interests, ask AI for activity suggestions that connect to those topics. For example, if many students are into sports, you could ask for math problems, writing prompts, or project ideas with a sports theme.

Combine with formative assessment

Use low-stakes quizzes, exit tickets, or short reflections to check how well students are engaging with the activities. This helps you adjust and keep them motivated.



2

Gamify Your Teaching

Add gamified activities to your lessons

Gamification can make lessons more fun and engaging. When using AI, be specific and ask for games, challenges, and interactive exercises based on your topic. Here are some ready-to-use prompts you can try right away.

Prompt 1:

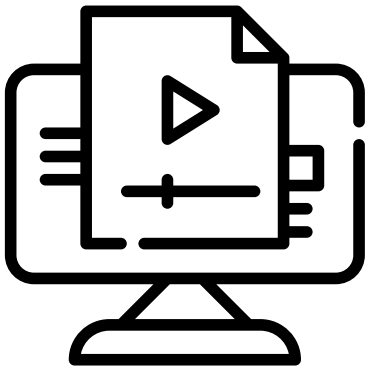
> I am a middle school math teacher. Create a Kahoot-style quiz with 10 questions on fractions, including answer choices and correct answers.

Prompt 2:

> Turn my grade 7 history lesson on ancient Egypt into a classroom escape room with puzzles and clues.

Prompt 3:

> Suggest a points-based game for my grade 3 class to review spelling words, with simple rules and a scoreboard idea.



3

Bring Lessons to Life with Multimedia

Search for Multimedia

Look for videos, documentaries, podcasts, and other media that connect to your lesson topic. AI can help you find resources quickly by suggesting titles or summarizing options.

Match to Your Goals

Choose materials that support your learning objectives and match your students' level. You can also ask AI to suggest age-appropriate resources or adapt the content to your curriculum.

Keep It Engaging

Mix formats (e.g., short video, a podcast clip, or an infographic) to keep attention and reach different learning styles. Adding a discussion question or quick follow-up activity makes the media more meaningful.

"AI is not just a passing trend; it's a language we need to learn and speak fluently." (p. 46).

IRREPLACEABLE: The Art of Standing Out in the Age of Artificial Intelligence (Function). Kindle Edition.

Tip for Better Results

When asking AI for multimedia, be specific about the format you want and mention the length or style you prefer. This helps AI give you resources that fit your lesson time and keep students engaged.

Prompt 1:

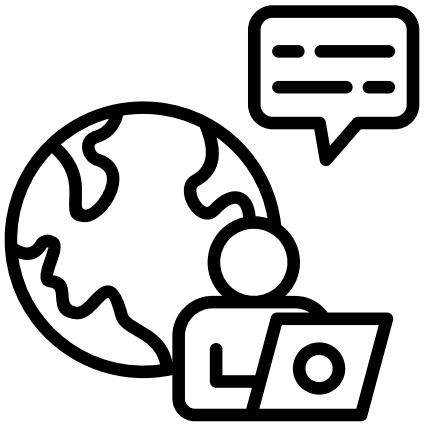
> I teach grade 8 history. Suggest three short, engaging videos about the Industrial Revolution that are appropriate for 13-year-olds and under 10 minutes long.

Prompt 2::

> I am planning a high school biology lesson on ecosystems. Find a podcast episode (20 minutes or less) that explains food chains and food webs in a way students will enjoy.

Prompt 3:

> Recommend a mix of multimedia resources (videos, infographics, or articles) to introduce grade 6 students to the concept of renewable energy. Include links or summaries if possible.



4

Cross-Curricular & Real-World Connections

Search for Cross-Curricular Links

Ask AI to suggest ways your topic connects to other subjects. For example, link math to science through data collection or connect history to literature with period novels.

Find Real-World Applications

Request examples of how the topic shows up in everyday life or in different careers. This helps students see why the lesson matters beyond the classroom.

Turn It Into a Prompt

Use a clear prompt to get focused ideas. Mention your subject, grade level, and the type of connections you want, cross-curricular projects, real-world examples, or career links.

The most successful students will be those who use AI to help make conceptual connections for developing ideas.

Khan, Salman. Brave New Words: How AI Will Revolutionize Education (and Why That's a Good Thing) (pp. 5-6). (Function). Kindle Edition.

Tip for Deeper Learning

When asking AI for cross-curricular or real-world ideas, be clear about your grade level and the kind of connections you want. This helps AI give examples students can relate to

Prompt 1:

> I teach grade 7 math. Suggest three ways to connect a lesson on ratios to real-world scenarios, like cooking, sports, or music.

Prompt 2::

> I am teaching grade 5 science about ecosystems. Give me two cross-curricular project ideas that include writing or art activities.

Prompt 3:

> Show me how to connect my grade 10 history lesson on World War II to modern-day issues in civics or social studies.

5 Unexpected Ways to Kick Off Your Lesson

Look for Fresh Angles

Ask AI for surprising or unusual ways to start your lesson. This could be a story, a mystery question, a meme, or a strange fact that grabs students' attention.

Keep It Relevant

Choose ideas that connect back to your lesson goal so students stay focused while still feeling curious.

Turn It Into a Prompt

Mention the topic, grade level, and that you want "unexpected" or "creative" openings so AI gives you ideas beyond the usual warm-ups.

As a means to rethink assessment in light of GenAI, project-based tasks could be a great option as they are engaging, authentic and allow a student to demonstrate their skills in a broad range of tasks rather than a pass/fail scenario.

Furze, Leon. Practical AI Strategies: Engaging with Generative AI in Education (p. 76). (Function). Kindle Edition.

Tip for Sparking Curiosity

When you ask AI for unexpected lesson openers, include words like "creative," "surprising," or "attention-grabbing." This will push it to give you ideas that students don't see coming.

Prompt 1:

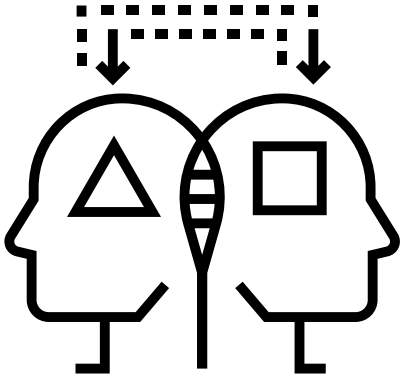
> I teach grade 8 geography. Give me three surprising ways to introduce a lesson on volcanoes — include one funny or weird fact students won't forget.

Prompt 2::

> I am teaching grade 10 literature. Suggest two unexpected activities to start a lesson on Shakespeare's Romeo and Juliet that will grab students' attention.

Prompt 3:

> Provide five creative and unusual warm-up ideas for a grade 6 math class on fractions — make them playful and short.



6

Explain with Analogies and Examples

Use Analogies to Simplify

Ask AI to turn a tough concept into an analogy students already understand — like comparing electricity to water flowing through pipes.

Bring in Real-Life Examples

Request examples from everyday life, pop culture, or careers that make the idea concrete and relatable for students.

Make Your Prompt Clear

Include the concept, grade level, and the type of analogy or example you want (sports, food, technology, etc.) so AI gives results your students connect with.

When using AI in education, it's vital to ask: What specific AI technology am I using, and how does it process student data?

Shelton, Ken; Lanier, Dee. The Promises and Perils of AI in Education: Ethics and Equity Have Entered The Chat (p. 115). (Function). Kindle Edition.

Tip for Making Ideas Click

When asking AI for analogies or examples, be clear about the concept and your students' age. You can even mention hobbies or topics they enjoy to make the analogy more relatable.

Prompt 1:

> I teach grade 6 science. Explain photosynthesis using a simple analogy that involves cooking or preparing food so students can easily picture the process.

Prompt 2::

> I am teaching high school physics. Give me three real-life examples to explain Newton's Third Law of Motion, including one from sports.

Prompt 3:

> Break down the concept of supply and demand for grade 8 students using a fun analogy from social media or popular trends.

7

Visualize Your Lesson for More Engagement

Ask for Visuals

Tell AI to create images or graphics that match your lesson. You can request diagrams, illustrations, or even story-style images to make your topic clearer.

Experiment with Styles

Try different looks. Cartoonish for younger students, hand-drawn or sketchy for a casual feel, photorealistic for science or geography, or even Ghibli-style for something magical and engaging.

Use It to Spark Interest

Show the images in class, use them in slides, or print them for activities. You can even ask AI to make multiple variations so students can compare or pick their favorite.

Merely knowing how to use technology is not the same as knowing how to teach with it. (p. 1033)

Mishra, P., & Koehler, M. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. Teachers College Record,108(6), 1017–1054

Tip for Creative Lessons

When asking AI for visuals, always mention the style you want. This makes the output match the mood of your lesson.

Prompt 1 (Cartoonish):

> Create a colorful cartoon-style illustration of the water cycle for grade 4 students. Keep it simple, fun, and easy to read.

Prompt 2 (Photorealistic):

> Generate a photorealistic image of a rainforest ecosystem showing plants, animals, and layers of the forest for a grade 7 science lesson.

Prompt 3 (Ghibli Style):

> Make a Ghibli-style fantasy image showing a child exploring a library full of floating books, to use as a creative writing prompt for grade 6 students.

8

Spark Curiosity Every Day with AI

Start with a Daily Question

Ask AI to generate a thought-provoking question related to your subject. Keep it open-ended to encourage discussion and creative thinking.

Make It Routine

Use the question as a warm-up activity at the start of class. Students can respond in journals, small groups, or a quick whole-class share.

Connect to Your Lesson

Choose questions that link naturally to the day's topic so students see the relevance. You can even ask AI to explain how the question connects to your learning goals.

Exercising creativity when using AI involves interacting with AI systems to brainstorm, generate, and refine original ideas. (p. 21)

OECD (2025). Empowering learners for the age of AI: An AI literacy framework for primary and secondary education (Review draft). OECD. Paris. https://ailiteracyframework.org

Tip for Consistent Engagement

When asking AI for curiosity prompts, include your subject, grade level, and how long you want the question to take to answer. This helps AI generate questions that are both engaging and practical for class time

Prompt 1 :

> I teach grade 6 science. Give me one open-ended curiosity question for today that sparks discussion about ecosystems and takes 5 minutes for students to answer.

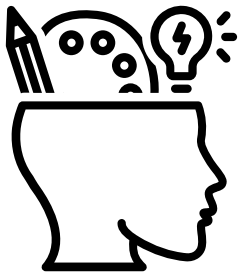
Prompt 2 :

> I am teaching grade 10 history. Suggest a thought-provoking question that connects the causes of World War I to issues students might recognize in today's world.

Prompt 3 :

> Generate a fun "question of the day" for grade 3 math students that makes them think creatively about numbers and patterns. Keep it light and playful.

Conclusion



In Co-Intelligence, Ethan Mollick argues that AI is becoming a partner in how we think and create. For teachers, this opens the door to reimagining lesson planning, designing activities, and engaging students. AI can generate ideas, curate resources, and produce visuals, freeing us to focus on what matters most: connecting with students and guiding their learning.

As educators, we also need to help students use AI thoughtfully. Bringing AI into class is not enough; we must teach students to question, reflect, and think critically about the information and ideas it produces. This builds digital literacy and turns AI into a tool for developing judgment rather than just efficiency.

Embracing AI means using it to amplify curiosity and creativity, not replace the human side of teaching. When we combine AI's strengths with our insight, we create classrooms that are more engaging, meaningful, and connected to the real world.