

FOR MATHEMATICS TEACHERS

40 chat prompts

# Prompts for Mathematics Teachers.

*Ready-to-use prompts for planning,  
teaching and reflection.*

*The right tool at the right time.  
Part of the WISE Framework for Education at  
choosewise.education.*

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# Glossary

A few terms that recur throughout this guide. If you already know them, skip ahead to the framework on the next page.

## AI — Artificial Intelligence

An attempt to make machines mimic brain functions — to "think" and learn roughly the way humans do. We don't fully understand how the brain works, but we can try to replicate the parts we do understand.

## Prompt

An instruction given to a chatbot to get a desired response or task performed.

## Iterate

After receiving a response from a chatbot, you refine and clarify the parts you're not satisfied with — sharpening the answer until it's what you want. The better your starting prompt, the fewer iterations you'll need.

## Chatbot

A chatbot has been trained to find patterns in large amounts of text. It uses those patterns to generate a response to your prompt. The answer is produced in real time.

## GPT

The underlying model (Generative Pre-trained Transformer) that a chatbot uses. The same GPT can power different chatbots — for example, Copilot and ChatGPT have both used OpenAI's GPT.

## Generative AI

AI that creates (generates) text, images, video, or sound in real time when prompted to do so.

## Bias

AI responses can be skewed or partial, depending on the data the AI was trained on and the biases present in that data. These biases are harder to spot in chatbots than in image-generating AI.

## Hallucination

The text you receive from a chatbot is based on patterns in its training data, but word generation also involves randomness — meaning generated words can sometimes create a meaning that simply isn't true.

## A framework for writing your own prompts

**Role:** Act as an experienced physics teacher.

**Task:** Create a lesson plan that introduces year 8 students to optics.

**Context:** I teach at a middle school, have 25 students in my class, and the lesson is 60 minutes long.

**Format:** Link content and activities to the physics curriculum and give me a plan that describes each part of the lesson and the materials required.

**Tone:** Use a formal but friendly tone.

## A few chatbots to know

AI can also generate images and more, but we focus here on chat capabilities.

**ChatGPT** — OpenAI's chatbot

**Gemini** — Google's chatbot

**NotebookLM** — Google's tool that can, among other things, generate a two-voice podcast

**Copilot** — Microsoft's chatbot

**Claude** — Anthropic's chatbot

**Perplexity** — From San Francisco, was early to include source links

**Duck AI** — DuckDuckGo's chatbot, lets you pick among several GPTs

**Mistral AI** — A chatbot from France

Most chatbots have age restrictions.

## How to use the prompts

All the prompts are starting points — examples to get you going. Adapt them to fit your context.

After using a chatbot for a while, you'll learn what kinds of prompts work better or worse. Try the same prompt twice — first as-is, then with the prefix "Act as an experienced expert teacher in [subject]" — and see whether the quality of the response improves. A good response means a good prompt. A poor response means the prompt needs more context or adjustment. Some chatbots are better than others at certain tasks, so if you're not satisfied despite multiple tries, consider switching chatbot.

### Brackets and privacy

You paste the prompt text into the chatbot's input field. Wherever brackets *[like this]* appear, replace the text inside with whatever fits your context.

**Always double-check the responses** — chatbot output is not guaranteed to be accurate.

**Note:** Think carefully before uploading texts or documents. Never upload personal data or sensitive information. Mind GDPR.

# Mathematics Teachers

- 01 Create a lesson plan for a *[grade X]* mathematics class that meets the curriculum goals for *[specific focus, e.g. problem-solving]*, with three activities and an introduction.
- 02 Give me five strategies for motivating a *[grade X]* student who finds mathematics difficult, with one simple and encouraging idea for each.
- 03 Write a short guide for teaching a *[grade X]* class a basic mathematical skill (e.g. *[specific skill, e.g. multiplication]*), with three steps and one example.
- 04 Suggest three ways to integrate *[specific theme, e.g. everyday mathematics]* into a mathematics lesson for a *[grade X]* class, with three exercises for each.
- 05 Create a list of five short encouraging phrases to build a *[grade X]* student's confidence during a mathematics task.
- 06 Give me an example of a routine for starting a mathematics lesson with a *[grade X]* class, with three steps and a brief number warm-up.
- 07 Suggest three ways to use everyday objects (e.g. *[specific object, e.g. rulers]*) in a mathematics lesson for a *[grade X]* class, with one activity for each.
- 08 Write a short template for a 10-minute closing routine for a mathematics lesson with a *[grade X]* class, with three elements (e.g. reflection, summary).
- 09 Give me five ideas for making a mathematics lesson for a *[grade X]* class more memorable, focusing on *[specific goal, e.g. geometry]*, with one game for each.
- 10 Create a list of three short reflection questions for a *[grade X]* class after a mathematics lesson on *[specific theme, e.g. fractions]*, to capture their thoughts.

- 11 Suggest three ways to collaborate with technology teachers at a *[middle school]* to connect mathematics to *[specific theme, e.g. measurements]*, with one idea for each.
- 12 Give me an example of a simple assessment of a *[grade X]* class's understanding of *[specific area, e.g. algebra]*, with three criteria.
- 13 Write a list of five resources (e.g. apps, games) for a mathematics lesson with a *[grade X]* class that support *[specific goal, e.g. numeracy skills]*.
- 14 Suggest three ways to adapt a mathematics lesson on *[fractions]* for a *[grade X]* student with *[specific need, e.g. dyscalculia]*, with one solution for each.
- 15 Create a template for a weekly mathematics plan for a *[grade X]* class, with three focus areas (e.g. calculation, problem-solving, reasoning).
- 16 Give me five ideas for using minimal equipment in a mathematics lesson for a *[grade X]* class to explore *[specific theme, e.g. area]*, with one example for each.
- 17 Suggest three ways to introduce a *[grade X]* class to *[specific mathematical concept, e.g. percentages]*, with one practical exercise for each.
- 18 Write a short guide for managing a disruptive mathematics lesson with a *[grade X]* class, with three steps and one calming strategy.
- 19 Give me an example of a mathematics lesson for a *[grade X]* class that combines mathematics with *[specific theme, e.g. economics]*, with three elements.
- 20 Create a list of three short ways to collaborate with science teachers at a *[compulsory school]* to reinforce *[specific goal, e.g. measurements]* in mathematics, with one example for each.
- 21 Create a lesson for a *[grade X]* class where they solve a practical mathematics problem about *[specific theme, e.g. budgeting]*, with three steps and one learning goal.

22 Give me five ways to make a theoretical unit in mathematics more engaging for a *[grade X]* class, with one creative idea for each.

23 Write a short guide for teaching a *[grade X]* class to solve *[specific type of problem, e.g. equations]*, with three steps and one example.

24 Suggest three ways to connect a mathematics lesson for a *[grade X]* class to *[specific theme, e.g. sustainability]*, with one exercise for each.

25 Create a list of five short practical exercises for a *[grade X]* mathematics class that reinforce *[specific goal, e.g. multiplication]*, with a description for each.

26 Give me an example of a routine for closing a mathematics lesson with a *[grade X]* class using a short problem-solving task, with three steps.

27 Suggest three ways to use digital tools (e.g. *[specific tool, e.g. GeoGebra]*) in a mathematics lesson for a *[grade X]* class, with two tasks for each.

28 Write a short template for a 5-minute reflection after a mathematics lesson with a *[grade X]* class, with three questions about their reasoning.

29 Give me five ideas for integrating games into a mathematics lesson for a *[grade X]* class, focusing on *[specific goal, e.g. addition]*, with one game for each.

30 Create a list of three short ways to support a *[grade X]* student who is struggling with *[specific concept, e.g. fractions]*, with one example for each.

31 Suggest three ways to collaborate with Social Studies teachers at a *[upper secondary school]* to connect mathematics to *[specific theme, e.g. statistics in society]*, with one idea for each.

32 Give me an example of a simple plan for teaching a *[grade X]* class to solve a geometry problem over one lesson, with three steps.

33 Write a list of five simple mathematics tasks for a *[grade X]* class that reinforce *[specific goal, e.g. logical thinking]*, with a rationale for each.

34 Suggest three ways to engage a *[grade X]* class that is reluctant to participate in a mathematics lesson, with one method for each.

35 Create a template for a term plan for mathematics for a *[grade X]* class, with three focus areas (e.g. number, geometry, problem-solving) and timeframes.

36 Give me five ideas for creating a simple mathematics exhibition with a *[grade X]* class, with minimal preparation, and one element for each.

37 Suggest three ways to introduce a *[grade X]* class to *[specific mathematical concept, e.g. probability]*, with one exercise for each.

38 Write a short guide for supporting a *[grade X]* student with *[specific need, e.g. attention difficulties]* in a mathematics lesson, with three steps.

39 Give me an example of a lesson for a *[grade X]* class that combines mathematics with *[specific theme, e.g. technology]*, with three elements.

40 Create a list of three short ways to collaborate with the student council at a *[compulsory school]* to reinforce *[specific goal, e.g. mathematics in everyday life]*, with one example for each.

CONTINUE ON THE WEB

# The right tool at the right time.

This collection is part of a library of AI prompts for every role in the school — free to use, adapt, and share.

## More prompt sets

Find prompts for principals, subject teachers, school leaders, support staff and more at [choosewise.education/prompts](https://choosewise.education/prompts)

## The WISE Framework for Education

Four questions that turn any "should we use this AI tool?" conversation into a structured decision — [choosewise.education/wise](https://choosewise.education/wise)

## Follow Johan Lindström on LinkedIn

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