



Tiny

Getting Started with Tinybots

Using Tiny to Develop Students' Thinking



tiny.school/en/teacher-materials

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These teaching materials were translated using Claude.
Please note possible imperfections in the expressions or wording.

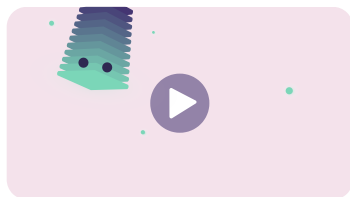
Using Tinybots to Develop Thinking

Introduction

The goal of using generative AI (GenAI) meaningfully in the classroom is to have chatbots support students' active thinking. This means the chatbot's job is not to hand out ready-made answers but to guide students to think, ask questions, make connections, and build arguments. That is why we created Tinybots. This introductory teaching material walks you step by step through introducing Tinybots to your students. We wish you every success!

The activities in this teaching material require registration in Tiny, an AI app developed by the nonprofit AI for Children. Please register in the app. If you need help, we have prepared video tutorials for you.

teacher.tiny.school

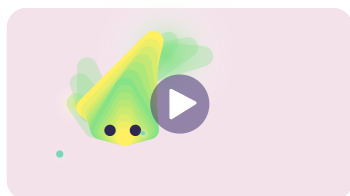


How to Register for Tiny

Registering for Tiny is quick and easy. We have prepared two video tutorials for you:

+ teacher registration: tiny.school/en/how-to-sign-up-as-a-teacher

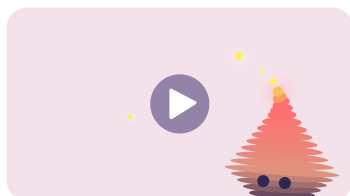
+ student registration: tiny.school/en/how-students-sign-up



Getting Started with Tiny

From a blank app to a live activity: create a class, set up a lesson, pick one of the eleven Tinybots, and give it a topic. Then just share the four-digit code with your students.

+ Video tutorial: tiny.school/en/how-to-work-with-tiny

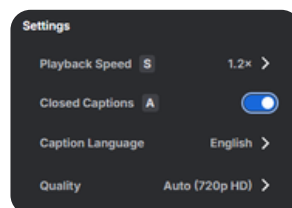


How to Create a Lesson in Tiny

Three ways to prepare a lesson: with the Tiny Guide, from the Lesson Library, or from scratch.

+ Video tutorial: tiny.school/en/how-to-create-a-lesson-in-tiny

Please note that the videos are in Czech. English subtitles are available. To turn them on, click the gear icon (Settings) in the bottom right corner of the video, switch on Closed Captions, and select English under Caption Language.



Tinybots

Tinybots Work Differently Than Regular Chatbots

Students are used to chatbots. Most of them follow a simple pattern: I type a question and get a ready-made answer. Tinybots work differently. Instead of answering, they ask questions, brainstorm, argue... Our testing shows that this feels unusual to students, and they tend to try to "make the chatbot work normally." They often think it is broken or "dumb."

It isn't. It is doing exactly what it was built to do: guiding students to think for themselves. Students won't grasp this difference on their own, though. That's why it is important to let them experience the principle firsthand and talk through its strengths and limitations.

How Regular Chatbots and Tinybots Differ

	Regular chatbot	Tinybot
Goal	Deliver a finished answer as fast as possible	Help students reach the answer through their own thinking
How it responds	Solves it for them	Asks questions, tosses the ball back
Success means...	I have the answer	I understood or remembered something...
Student's role	Requester	Active participant in the conversation
Teacher view	Nothing	The conversation (a basis for feedback)
Boundaries	None: answers anything	The teacher sets the topic and goal; Tiny sets the structure of the conversation

How to Prepare a Tinybot Activity

In Tiny, you can prepare a student activity in three ways: build it yourself, get help from the AI assistant, or use a ready-made lesson.

1. Build the activity yourself

Choose the Tinybot that fits what you want your students to practice or develop, then fill in its instructions. The essentials are the topic and the goal of the activity. You can also specify the grade level, the focus of the conversation, or how the chatbot should work with students. The logic of each Tinybot (how it asks questions, prompts students to think, or responds to their answers) is already built in. You simply add the specifics for your lesson.

2. Get help from the AI assistant

Not sure which Tinybot suits your activity or how to word the instructions? Try the Tiny AI assistant. Just tell it what you will cover with your students, and optionally the grade level or learning goal. The assistant will help you pick the right Tinybot, suggest instructions for the activity, and can even set up the lesson for you.

3. Use a ready-made lesson

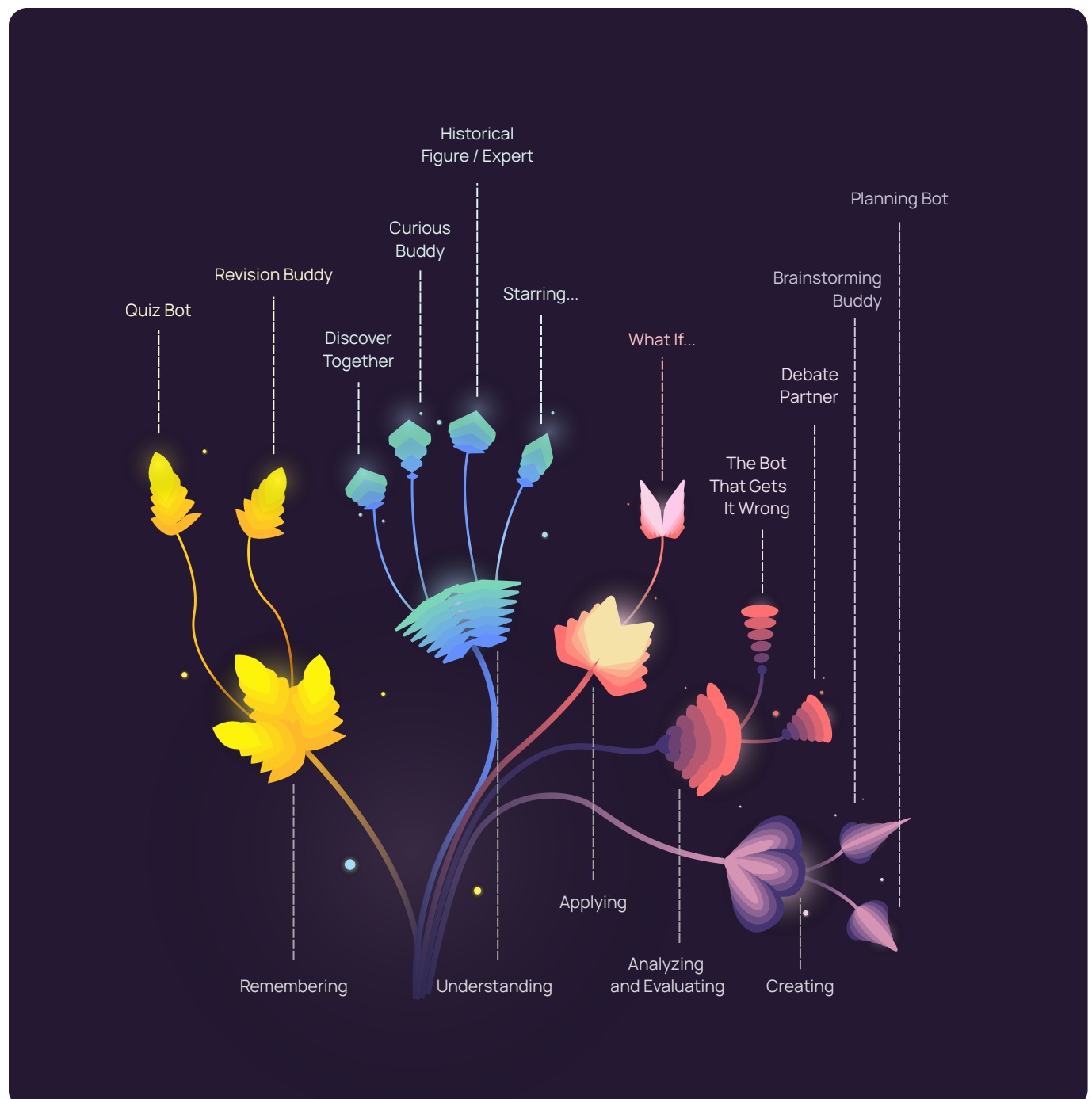
You don't always have to start from scratch. You can launch a ready-made lesson, either one shared by your colleagues or one of the Tiny lessons created by the AI for Children team. You can use it in class right away or adapt it to fit your students' needs.

You'll find the video tutorial at the beginning of this teaching material.

Types of Tinybots

Tiny offers eleven Tinybots that don't hand out ready-made answers. Instead, they guide students' thinking.

To keep things clear, we have grouped them into categories based on the revised Bloom's Taxonomy. The flower diagram shows the cognitive levels (labeled at the bottom), with the individual Tinybots branching out from them (at the top). This grouping helps Tiny set the right learning outcomes and rubrics, which we use to give you and your students feedback on their conversations. You'll find a description of each Tinybot type, along with its teaching material, here: tiny.school/tinybots



How to Teach a Lesson with Tinybots

General Principles

Working with Tinybots shouldn't be mere filler or an optional add-on. It works best as a natural part of the lesson that connects to other classroom activities, such as discussion, working with a text, a presentation, or reflection. The goal is not to spend the whole class period with a Tinybot, either. In most cases, short, clearly structured conversations (about 5 to 15 minutes) work well.

A Tinybot activity works best in three steps: a quick warm-up before the conversation (students try to answer on their own, make a guess, recall what they know) → the conversation with the Tinybot → a short wrap-up afterward (students explain or apply what they figured out, without the Tinybot).

Why and How to Set a Learning Outcome

So that the lesson isn't just "students chatting with a chatbot," the Tinybot activity needs a clear outcome. The Tinybot is one activity, maybe ten minutes long, that connects meaningfully to the rest of the lesson: direct instruction, discussion, working with a text, or reflection.

State the outcome in practical, student-centered terms. Examples for this lesson:

- + Students explain in their own words how a Tinybot differs from a regular chatbot.
- + Students describe how one-word replies vs. full sentences change the conversation.
- + Students propose at least two rules for using Tinybots meaningfully in class.

Assessment Criteria for Tinybot Activities

Most educational chatbots in Tiny are not primarily designed to provide answers. Instead, they support different levels of student thinking, from practice and understanding, through argumentation and fact-checking, to generating ideas or solutions. Your assessment criteria should reflect this. For example, you can assess:

- + quality of arguments and explanations,
- + ability to verify information,
- + work with questions,
- + exploring different solutions,
- + active engagement in the conversation,
- + reflection on mistakes and feedback,
- + ability to recall or apply what they learned without the Tinybot.

Recommended Rules for Working with Tinybots

During this lesson, we also recommend raising the topic of rules for using Tinybots in class. You can draw them up together with your students. Going forward, they can serve as a useful guide for when and how to use Tinybots, not only in class but also for homework, for example. Sample rules:

- + Working with a Tinybot is part of class, and regular school rules apply.
- + Tinybot activities may count toward assessment.
- + The teacher can follow conversations in real time and review them after the lesson.
- + Students are expected to keep the conversation focused on the assignment.
- + If the system detects inappropriate content, it may alert the teacher.
- + Tinybots can make mistakes, so information must be checked and thought about critically.
- + When students aren't sure what to do, they ask the teacher.

Setting things up this way helps prevent "trolling" and guides students to use AI as a tool for learning and thinking, not as a shortcut to ready-made answers.

Lesson Plan

The aim of this lesson is to let students experience firsthand that an educational chatbot works differently from regular chatbots. As in all our teaching materials, the lesson below is divided into three phases: Engage, Understand, and Reflect.

Start with a brief introduction. Explain that the lesson introduces educational chatbots called Tinybots, a tool students will keep using in different subjects. Don't explain yet how Tinybots differ from regular chatbots; students should discover that for themselves. Just tell them that today they will learn how the tool works.

Engage

10 minutes

Ask students the following questions:

- + How often do you use chatbots, and for what? (school, fun, homework...)
- + Why do you use chatbots? (e.g., to have a topic explained, to complete an assignment...)
- + If we made rules for using chatbots at school, what should they include?

You can use the last question to gather ideas for rules. Write them where everyone can see, for example on the board. Don't evaluate them yet; you will come back to them during the Reflect part.

You can use the Think-Pair-Share strategy during the Engage part.

Students first think on their own for two minutes, then briefly compare answers with a partner and jot them down. Finally, they share what they came up with (with the whole class or in pairs).

Be concrete with younger students and build the discussion on examples.
With older students, you can also discuss when using AI at school is okay and when it isn't.

Understand

30 minutes

Students log in to Tiny.

The first login can take 10 to 15 minutes, so plan for it. Students can sign in with their school email (Google or Microsoft) or any other (school) email address.

Share the PIN code students use to join the activity.

Before launching the Tinybot, tell students the activity is timed and set a timer for 8 minutes. Explain that the Tinybot will chat with them about what a typical week looks like for them, asking about school, free time, daily activities, or the weekend and building on their answers.

During the conversation, students can also deliberately test how the Tinybot works. They can try to provoke it, type nonsense (or even rude words), answer with just one word, change the subject, or steer it toward a completely different conversation. They observe what happens: whether the Tinybot gets pulled off topic, how it responds to very short answers, and how its follow-up questions change depending on how much the student shares.

Our testing shows that it is important for students to go through this first phase of getting to know Tinybots. So please don't grade or correct them. You will probably see lots of red exclamation marks in the conversation indicators (they flag inappropriate conversations). That is perfectly fine. Thank you for bearing with it!

Lead a class discussion around these questions:

- + How was the Tinybot different from what you expected? What surprised you?
- + Did you try to "break" the Tinybot or pull it off topic? Did it work? How did it respond?
- + Can a Tinybot help you learn? If so, how? And on the other hand, where might it fall short?

Reflect

5 minutes

Return to the rules from the Engage part.

Tell students you'd like to put together rules for using Tinybots so that they work well in your lessons. Go back to the suggestions students shared at the start of the lesson. Review them together in light of what students now know about Tinybots, and ask:

- + Now that you know how Tinybots work, which ideas would you keep and which would you cut?
- + What would you add or rephrase?
- + Is any rule missing?

The class can agree on what the rules should cover (not the final wording). Write up a clean version after class and confirm it with students next lesson. Keep the rules posted and refer back to them, including in the subject-specific teaching materials that follow.

At the end of the lesson, sum up: the Tinybot educational chatbot isn't broken. It is a tool designed to help students learn and think. The key to success is communicating with it actively and clearly. Mention that students will meet Tinybots again in their other subjects.