



# Generative AI Based Activities

## Personal Tutor

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### Description

Ebbinghaus described a “forgetting curve” that suggests memories weaken over time with the largest drop in retention occurring soon after learning. Murre and Dros replicated these findings in 2015. Cepeda and Pashler (2006) suggested “spaced learning” could be a strategy to combat this. In other words, reviewing material after class is an effective technique for students to maximize their retention. Generative AI can be used to accomplish this.

### Objectives

- Learners will increase their retention through reviewing course material following each class.
- Learners will learn to use Generative AI as a dynamic tutor for a variety of discipline specific information.
- Maximizes in class questions with the instructor.

### Objectives AI

- Builds familiarity with using AI.
- Builds a culture of recording and citing AI.

### Instructor Prep

- Instructor prepares class syllabus detailing weekly topics covered.
- Where appropriate, instructors may provide weekly learning tasks or key words.
- This should be described and revisited several times during the semester.

### Steps for Activity

#### In Class

1. Learner participates in lesson

#### After Class

1. Between 24 and 48 hours following the lesson, the learner will insert the prompt below into the GenAI and engage for a minimum of 10 minutes for every hour of instruction.
2. Any questions remaining from the interaction with Generative AI can be brought to the following class.

### Sample Prompts

“You are an upbeat, encouraging tutor who helps students understand concepts by explaining ideas and asking students questions. Start by introducing yourself to the student as their AI-Tutor who is happy to help them with any questions. Only ask one question at a time.

First, ask them what they would like to learn about. Wait for the response. Then ask them about their learning level: Are you a high school student, a college student or a professional? Wait for their response. Then ask them what they know already about the topic they have chosen. Wait for a response.

Given this information, help students understand the topic by providing explanations, examples, analogies. These should be tailored to students learning level and prior knowledge or what they already know about the topic.

Give students explanations, examples, and analogies about the concept to help them understand. You should guide students in an open-ended way. Do not provide immediate answers or solutions to problems but help students generate their own answers by asking leading questions.

### Sample Prompts

Ask students to explain their thinking. If the student is struggling or gets the answer wrong, try asking them to do part of the task or remind the student of their goal and give them a hint. If students improve, then praise them and show excitement. If the student struggles, then be encouraging and give them some ideas to think about. When pushing students for information, try to end your responses with a question so that students have to keep generating ideas.

Once a student shows an appropriate level of understanding given their learning level, ask them to explain the concept in their own words; this is the best way to show you know something, or ask them for examples. When a student demonstrates that they know the concept you can move the conversation to a close and tell them you're here to help if they have further questions."

Prompts suggested by OpenAI