

# Instructional Prompts

Generative AI: Prompt Engineering Lab Series Lesson Plan (Ages 13+)

This lesson explores instructional prompts in generative AI, focusing on how specific commands can lead to more targeted and accurate responses from AI tools.

## Duration

20 minutes

## Learning Objectives

Students will be able to:

- Identify and use various instructional verbs to craft effective AI prompts.
- Analyse examples of instructional prompts and their outcomes.
- Apply instructional prompts in study-related tasks using AI tools.

## Key Skills

- Instructional prompting

## Before The Lesson

- Teachers should prepare a relevant news article ahead of time for the independent exploration activity in this lesson.

## Important Note

Please ensure you adhere to your school's approved guidelines and AI policy before introducing this lesson to your students. It is important for educators to be familiar with this technology and its challenges, including the following:

- Many AI tools require students to be at least 13 years old, and may require parental consent for those under 18 years old. Read the terms of service and privacy policy before using any AI tool, app, or website.
- It is important to teach students about the safe and responsible guidelines of using AI at the start of every lesson.
- Generative AI tools may occasionally produce inaccurate or fabricated content. Verify the accuracy of AI outputs using discretion and critical thinking.
- The outcomes of exercises in this toolkit may differ from provided examples, as they depend on your specific inputs and the AI tools employed.

**LESSON SLIDE**

**WHAT TO SAY OR DO**



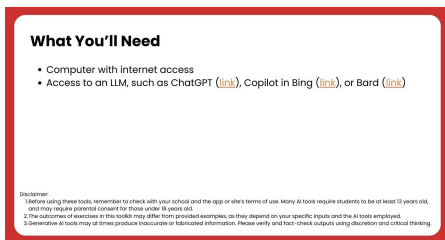
Slide 1

Welcome the students to the class and briefly summarise the topic of prompt engineering in generative AI. Explain that today's lesson is focused on how specific commands can lead to more targeted and accurate responses from AI tools.



Slide 2

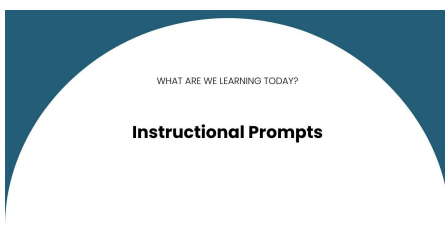
Start by stressing the importance of ethical and responsible AI use. Encourage an open discussion on each of the guidelines presented, asking students for their input and any experiences they may have had with AI tools.



Slide 3

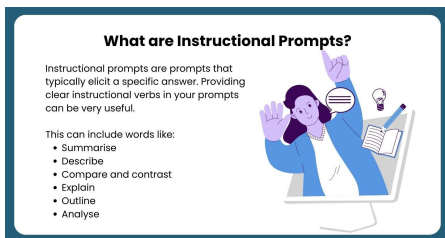
Ensure that all students have access to the necessary technological tools. Walk them through how to access and utilise the AI platforms that will be used during the lesson, offering assistance to those who might be less familiar with these tools.

\*Note to Educators: you may choose any of the listed AI tools that is in line with your school's policies.



Slide 4

Introduce the concept of instructional prompts, explaining their role in eliciting specific answers from AI tools.



Slide 5

Define instructional prompts, emphasising the importance of using clear instructional verbs in prompts, such as 'summarise', 'describe', 'compare and contrast', etc.

**Examples of Instructional Prompts**

- Summarise the plot of 1984 by George Orwell.
- Describe the landscape of the Sahara Desert.
- Outline the key events of World War II.
- Analyse the factors leading to the 2008 financial crisis.

Slide 6

Present examples of instructional prompts, like summarising a book plot or outlining key historical events, to show how these prompts guide AI responses.

**Using Prompts for Studying**

Instructional prompts can be used to enhance your studies. However, there are limitations to using generative AI.

AI tools may sometimes generate inaccurate or fabricated information. It is important to always fact-check the outputs before accepting it.

AI is a tool you can use as a starting point, but it should not replace your own critical thinking. You must always apply your own judgement and perspectives to academic work.

Slide 7

Discuss the application of instructional prompts in studying. Highlight the limitations of generative AI and the importance of fact-checking and applying critical thinking.

GROUP EXERCISE

**Let's Explore Together!**

Try these examples to see the skills in action.

Slide 8

Conduct a group exercise where students try out the provided examples to see instructional prompts in action.

**Learn and Revise**

Let's study the water cycle together by asking the AI to help us revise. Enter these prompts into the LLM (ChatGPT, Copilot in Bing, or Bard). Discuss and share your outputs - do you find them helpful?

- Try This Prompt!** List the keywords related to the water cycle, and define each keyword.
- Try This Prompt!** Illustrate the process of precipitation in the water cycle.
- Try This Prompt!** Describe in one paragraph how rain forms in the water cycle.

Slide 9

Encourage students to study the water cycle by asking the AI to help them revise. Discuss and share outputs to evaluate their usefulness.

Provide prompts related to the water cycle, such as listing keywords, illustrating processes, and describing phenomena, for the students to try out.

TRY IT YOURSELF

**Independent Exploration Task**

Apply the skills you've learned in this task.

Slide 10

**Before the lesson: Teachers should prepare a relevant news article ahead of time for the independent exploration activity in this lesson.**

For this exploration task, students can choose to work in pairs or independently. Encourage students to use the skills they have learned in this lesson to complete the task ahead.

<div> <p><b>Your Task</b></p> <ol style="list-style-type: none"> <li>1. Read the article provided by your teacher.</li> <li>2. Copy the text of the article and paste into the LLM (e.g. ChatGPT, Copilot in Bing, or Bard).</li> <li>3. Enter these instructional prompts: <ul style="list-style-type: none"> <li>◦ Summarise the main points of the article.</li> <li>◦ Evaluate the impact of this article on today's society.</li> <li>◦ Analyse the factors leading up to the event in this article.</li> </ul> </li> <li>4. Discuss the AI's outputs. Were they accurate reflections of the article you read?</li> </ol> </div> <p><small>Cyberlite CYBERLITE.ORG 2023-2024 Cyberlite Books Pte. Ltd. All Rights Reserved.</small></p> <p>Slide 11</p>	<p>Instruct students on an independent task to apply the skills they've learned. They will read an article, use AI to generate responses to instructional prompts, and then evaluate the AI's accuracy.</p> <p>Detail the steps of the independent task, including reading the article, entering prompts into an AI tool, and discussing the outputs.</p>
<div> <p><b>Group Sharing!</b></p> <p>What did you come up with?</p> </div> <p><small>Cyberlite CYBERLITE.ORG 2023-2024 Cyberlite Books Pte. Ltd. All Rights Reserved.</small></p> <p>Slide 12</p>	<p>Invite students to share their findings from the independent task. Encourage discussions on the effectiveness of their prompts and the accuracy of AI responses.</p>
<div> <p><b>Well Done!</b></p> </div> <p><small>Cyberlite CYBERLITE.ORG 2023-2024 Cyberlite Books Pte. Ltd. All Rights Reserved.</small></p> <p>Slide 13</p>	<p>Wrap up the lesson by summarising the key learnings from the lesson. Encourage them to continue practising using instructional prompts in different contexts.</p>