THE AI ADVANTAGE
in Next-Gen Science Classrooms

@coachkarle

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📝Group Prompt Doc 📝

PREPare Prompting Model from The AI Educator

P	Prompt	Introduce what you want	"Generate a 5-E lesson plan for the following standard"
R	Role	Give it a role	"You are an expert teacher, skilled in writing engaging curriculum"
E	Explicit	Be explicit with instructions	Include standards, grade level, the more detail the better
P	Parameters	Set parameters for the answer	"Provide 3 examples" "Answer using a table with columns for…"

A	Ask	Ask it to ask you follow-up questions	"What questions do you have for me?"
R	Rate	Ask it to rate its response	"Rate the accuracy and quality of your response"
E	Emotions	Appeal to its emotions	"You must" "You will be penalized" "I'm going to tip $$$ for a better solution"

Fitzpatrick, D. (2024)

Karle Delo 2024 (@coachkarle)

Additional Prompting Tips:

- Every prompt is unique. You don't have to include the same level of detail, or all of the above components to create a good prompt
- Provide feedback to the LLM when a response is not what you are looking for
- The best results come after multiple prompts in the same chat session
- Instead of using phrases like "please" or "I would like you to," be assertive and use phrases that get straight to the point, such as "You must" and "I need you to,"
- Include the intended audience
- Use affirmative directions such as "do" and avoid negative language such as "don't"
- For writing generation, include "Answer the following question in natural, human-like manner"
- Use repetition for important directions
- If it doesn't come out how you want in one LLM, try another!

Helpful Links & Resources

ChatGPT	**AI for Education Prompt Library**	**The AI Educator Dan Fitzpatrick**
Google Gemini	**Eduaide.Ai**	**List of Top AI Tools for Teachers**

Sample Prompts

NGSS Unit Planning

Real-World Anchor Phenomena
You are an expert **[grade level] [subject]** teacher who generates engaging, real-world phenomena to anchor each unit of study. Using the following NGSS science standards, you must generate 5 real-world anchor phenomena for a coherent sequence of science lessons. Standards: **[standards]**
Sample: ChatGPT

Driving Question
You are an expert **[grade level] [subject]** teacher who generates engaging driving questions based on real-world phenomena. Generate 3 driving questions that will be used throughout the unit based on the following anchoring phenomena: **[phenomena]**. The driving question is specific to the phenomena, not easily answerable, prompt an explanatory answer, and frame the entire unit for students.

Lesson Sequence and Storyline
You are an expert **[grade level] [subject]** teacher who generates engaging unit plans with anchoring phenomena, driving questions, and coherent storylines. You must generate a suggested storyline including based on the following anchoring phenomena **[phenomena]** and driving question **[phenomena].** Include a lesson sequence and essential questions that tie each lesson back to the driving question.

Assessment

Sample Data Sets
You are a **[grade level] [subject]** teacher who is an expert at writing engaging sample problems with data tables. Create 3 scenarios where **[describe desired data]** are displayed in a data table. Students will calculate **[desired calculation]** to determine **[desired answer]**. The scenarios must include a detailed, funny, and engaging narrative, **[number]** trials, and be relevant to teenagers. Include the following topics: **[topics]**
Sample: [ChatGPT](#) and [Speed Scenarios Worksheet](#)

Claim-Evidence-Reasoning Prompt (Boring Version)
You are an expert **[grade level] [subject]** teacher with a deep understanding of how to write high-quality and engaging claim, evidence, and reasoning conclusion scenario prompts to assess students. You must provide 3 scenario prompts related to the following topic that students can respond to in a claim-evidence reasoning format. For each prompt, include a detailed scenario, a sample data set displayed in a data table for students to analyze, and a question that students will answer. Topic: **[topic]**

Claim-Evidence-Reasoning Prompt (Creative Version)
You are an expert **[grade level] [subject]** teacher with a deep understanding of how to write high-quality and engaging claim, evidence, and reasoning conclusion scenario prompts to assess students. You must provide 3 scenario prompts related to the following topic that students can respond to in a claim-evidence reasoning format. For each prompt, include a detailed scenario, a sample data set displayed in a data table for student to analyze, and a question that students will answer. The scenarios must be creative and can be about fictional topics that modern teenagers would find engaging and funny. Topic: **[topic]**

Follow-Up Prompt: Include a rubric in table format and an exemplary answer.

Scaffolding and Differentiation

Differentiated Reading Sets
You are an expert in writing **[genre]** at various grade levels. You must be precise with grade-level determinations and only use appropriate vocabulary and word choice for each grade level. Generate an article about **[topic].** Include the following: **[details].** The article should be written at a **[grade]** reading level.

Follow up: You must re-write the article to include the same information at a **[grade]** reading level.
Sample: [fobizz Chat](#)

Analogy to Help Explain

You are an expert teacher who uses analogies to explain complex topics in a way that is easy for **(grade-level)** students to understand. Generate 3 analogies to explain **(topic)**.
Sample: [fobizz chat](#)

General Lesson Planning

Revise Learning Target

You are an education expert with knowledge about writing learning targets, success criteria, and performance tasks. Revise my current learning target for **[grade level and subject]** to be more clear and in student-friendly language. **[learning target:]**

Generate Learning Targets with Bloom's Taxonomy

You are an education expert with knowledge about writing learning targets that are scaffolded using Bloom's Taxonomy. For the following **[grade level] [subject area]** standard, you must write 2-4 learning targets for each category of Bloom's Taxonomy in student-friendly language. **[Standard:]**

Generate Success Criteria

You are an education expert with knowledge about writing learning targets and success criteria. For the learning target **[learning target],** you must suggest three specific, observable success criteria for **[grade level]** students.

Generate Performance Tasks

You are an education expert knowledgeable about writing learning targets, success criteria, and performance tasks. For the learning target **[learning target]** and success criteria **[success criteria],** you must generate 5 performance tasks that involve real-world scenarios.
[Sample: Lesson Plans for 6th Grade ELA](#)

Sources

Fitzpatrick, D. (2024). [PREPARE Prompting Framework]]. Retrieved [2/18/2024], from [https://www.linkedin.com/posts/theaieducator_these-26-tips-paired-with-the-prepare-framework-activity-7148697438189502465-GOy8?utm_source=share&utm_medium=member_desktop]