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| Prompt Type | Prompt Used | Model Output |
| Role-based Prompt | You are a high school biology teacher. Explain photosynthesis to students in simple words. | Photosynthesis is the process of converting sunlight into light energy by photosynthesis. |
| Chain-of-Thought Prompt | Explain photosynthesis step by step, reasoning each step clearly. | Photosynthesis is the process of converting sunlight into light energy. Light energy is converted into light energy by photosynthesis. The first step in photosynthesis is to convert sunlight into light energy. The second step is to convert sunlight into light energy by photosynthesis. The third step is to convert sunlight into light energy by photosynthesis. The fourth step is to convert sunlight into light energy by photosynthesis. The fifth step is to convert sunlight into light energy by photosynthesis. The sixth step is to convert sunlight into light energy by photosynthesis. The final step is to convert sunlight into light energy by photosynthesis. |

# Assignment 2: Role-based & Chain-of-Thought Prompting

## Objective: Learn role-based and step-by-step reasoning prompts.

## Reflection :

## In the role-based prompt, the explanation was very simple but lacked detail. It only stated Reflection

In the role-based prompt, the explanation was very simple but lacked detail. It only stated that photosynthesis converts sunlight into energy without explaining the process clearly.  
  
In the chain-of-thought prompt, the model tried to explain step by step but became repetitive and less accurate. While it followed the instruction to reason step by step, it failed to provide meaningful details of the process. This shows that role-based prompts can help set the context and audience, while chain-of-thought prompts encourage deeper reasoning but may require a better model or refined prompt to avoid repetition.