This will help you with your Planning portion of the POM. Based on the Interactive, Virtual Simulation, or Design Challenge you optioned to complete, use either the (1) Experimental Design or (2) Engineering Design Process to improve your understanding of scientific methods and engineering.

Scientific Investigation	Engineering Design
A. PROBLEM STATEMENT: State a possible research question for the activity option you experienced.	A. PROBLEM STATEMENT: State a possible research question for the activity option you experienced.
B. EXPERIMENTAL DESIGN: State a possible hypothesis. ❏ Explain the independent and dependent variables; including experimental constants and the importance of a control group. ❏ Describe the materials and procedures in the experiment or test.	B. DESIGN DEVELOPMENT: Describe the criterias and constraints used on the design/model.
C. DATA COLLECTION & ANALYSIS: What qualitative and quantitative data can or was collected? ❏ Explain the outcome of the experiment or test.	C. BUILD MODEL OR PROTOTYPE: Illustrate the model or prototype prior to building. ❏ Provide an illustration or photo of the FINAL model/prototype.
D. DRAWING CONCLUSIONS: Justify how the data addressed the research question and hypothesis.	D. DRAWING CONCLUSIONS: Form connections between the testing, data collected, and how a solution was developed for the problem.
E. TEAM COLLABORATION: How would group/team members work together to complete the task (or do it better)?	E. TEAM COLLABORATION: How would group/team members work together to complete the task (or do it better)?
F. BENEFIT TO THE COMMUNITY: Explain how your client, audience, stakeholders, and/or community members (1) would use this data and (2) why the research question should be important to them.	F. BENEFIT TO THE COMMUNITY: Explain how your client, audience, stakeholders, and/or community members (1) would use this data and (2) why the research question should be important to them.

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