

Scoring CriteriaProblem Solving

Performance Indicator	1	2	3	4
A. Observe and evaluate situations in order to define problems.	make observations about situations.	I can identify relationships to make inferences about a problem; propose possibilities to define a problem.	make observations and collect related information from multiple sources; articulate the problem and identify constraints.	I can analyze situations to define complex problems and explain their relevance within the world.
B. Frame questions, make predictions, and design data collection and analysis strategies.	ask questions about a situation; find information in sources provided for me.	I can ask questions to clarify my understanding; take information into consideration when making predictions.	 I can ask probing questions about a situation; make predictions considering multiple sources of information; identify tools and design procedures needed for collecting, managing and analyzing information. 	I can justify my design by analyzing strengths and weaknesses; connect the situation to a larger context and make a prediction based on that context.
C. Identify and analyze patterns, trends and relationships in the data or information.	I can • describe the data / information I have gathered.	I can • identify simple patterns and trends in my data / information; • determine whether my data are sufficient or if I need to gather more data / information.	I can • identify patterns and trends in data / information; • analyze these patterns and trends to identify relationships.	I can identify data crucial to the problem; identify and prioritize patterns and trends in data / information most relevant to the problem.

D. Based on analysis of the data or information, generate options and use evidence to build a case for the best solution.	I can • identify strategies that could be used to solve a problem; • propose a simple solution.	explain my analysis of the data or information; list possible solutions for the problem.	consider possible solutions for the problem based on my analysis of the data / information; choose a workable solution and explain my reasoning.	evaluate possible solutions for the problem based on detailed and thorough analysis of complete and sophisticated data / information; develop a creative and workable solution and justify my reasoning thoroughly with evidence.
E. Identify opportunities for innovation and collaboration.	I can I can identify places where innovation and/or collaboration are possible.	I can identify an additional source of information for my project. I can I	I can identify a range of peers and field experts / organizations to support my work; identify opportunities for new thinking or creative problemsolving.	seek out a variety of experts, peers, experiences, or sources of information that could add additional viewpoints or insights; create opportunities for new thinking or creative problemsolving.
F. Evaluate the available tools, including technology, and select one to address the problem.	I can I can I dentify digital or physical tools that could be used to solve a given problem.	I can identify a range of appropriate tools to help solve a problem. I can identify a range of appropriate appropriate tools to help solve a problem.	evaluate multiple tools to choose a tool that will effectively solve a problem; use the selected tool to solve the problem; articulate and/or explain why the tool was or was not the best choice.	be creative and innovative in my selection and use of tools; seek out and learn about new tools that are very well-suited to the problem, or adapt a tool to fit my needs.
G. Persist in solving challenging problems, adapting strategies and approaches as needed.	I can I list some steps needed to solve a problem; make one effort to solve a problem or a challenge.	I can • explain what I have learned from trial and error; • make at least two attempts to solve a problem.	I can not give up even after trying several times; explain how I learned from failure and applied the understanding that I gained from experience.	I can • not give up even after significant setbacks; • connect and use my understanding to other learning experiences and contexts.

