

	Beginning	Developing	Accomplished	Exemplary
Understands the problem	Shows little evidence of understanding the problem .	Shows some evidence of understanding the problem .	Shows evidence of fully understanding the problem .	Shows evidence of fully understanding the problem and adds new insight.
Identifies a strategy and uses a variety of resources	Does not identify a strategy to address the problem . Uses little to no appropriate resources .	Develops a strategy that addresses some aspects of the problem . Uses at least one appropriate resource .	Develops a strategy that addresses all or nearly all aspects of the problem . Uses multiple appropriate resources .	Develops multiple strategies that fully address the problem and uses multiple, appropriate resources .
Implements strategy	Does not implement an effective strategy to solve the problem .	Implements a partially effective strategy to solve the problem .	Implements an effective strategy to solve the problem .	Demonstrates advanced skills/techniques to implement an effective strategy.
Monitors progress and revises strategy	Rarely monitors progress toward a solution and makes no adjustment to the strategy when needed.	Occasionally monitors progress toward a solution and makes minimal adjustments to the strategy when appropriate.	Consistently monitors progress toward a solution and appropriately adjusts strategy to achieve further progress.	Insightfully monitors progress toward a solution. Actively reflects on strategy and adjusts it to maximize progress.
Evaluates the solution	Communicates little about the solution's effectiveness.	Communicates some ideas about the solution's effectiveness.	Communicates several ideas about the solution's effectiveness.	Communicates insightful ideas about the solution's effectiveness and proposes alternative solutions.
Demonstrates independence	Ongoing assistance required.	Some assistance required.	Little to no assistance required.	No assistance required and assists other students.

Notes:

Definition

Problem Solving is the process of designing, implementing and evaluating a strategy to answer an open-ended question or achieve a satisfactory solution.

Framing Language

Problem solving covers a wide range of activities that vary significantly across disciplines. This rubric distills common elements of problem solving and is designed to function across all disciplines. It determines how well each student maximizes his/her respective abilities in thinking through a problem in order to reach a solution. This rubric emphasizes the quality of the process, rather than the quality of the end product. As a result, student work will need to include evidence of the individual's thinking about the problem-solving task. This could be a reflection on the process, the steps used to solve the problem or a record of a procedure. The final product is insufficient without the insight into the student's problem-solving process.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Evaluate:** to judge
- **Implement:** to put into practice
- **Identify a strategy:** to choose a course of action
- **Monitor:** to keep track of
- **Problem:** a question or issue that is identified or proposed for solution
- **Reflection:** serious thought or consideration
- **Resources:** external resources include the personnel, equipment, materials and research required to complete tasks in a project; internal resources include an individual's skills, experience, and prior knowledge