



CRITICAL THINKING / PROBLEM SOLVING RUBRIC (GRADES 9-12)

| SCORING DOMAIN | EMERGING | E/D | DEVELOPING | D/P | PROFICIENT | P/A | ADVANCED |
|--|--|-----|--|-----|--|-----|--|
| PROBLEM FORMULATION <i>What is the evidence that the student can identify a clear and specific problem, challenge or question to investigate?</i> | <ul style="list-style-type: none"> Identifies an unclear problem, challenge, or question to investigate based on incomplete or irrelevant information gathered from the context Asks questions about the problem that are off track. | | <ul style="list-style-type: none"> Identifies a broad or general problem, challenge, or question to investigate based on incomplete but relevant information gathered from an authentic, real world context Asks questions to break down the problem, propose explanations, and to guide the inquiry that are generally reasonable but not supported by a knowledge base | | <ul style="list-style-type: none"> Identifies a clear and specific problem, challenge, or question to investigate based on relevant information gathered from an authentic, real world context Asks focused questions to break down the problem, propose reasonable, knowledge-based explanations, and to guide the inquiry | | <ul style="list-style-type: none"> Identifies with precision a clear and specific problem, challenge, or question to investigate based on relevant information gathered from an authentic, real world context Asks questions to break down the problem, propose explanations, and to guide the inquiry that are focused, precise, and well grounded in a knowledge base |
| ANALYZE EVIDENCE <i>What is the evidence that the student can analyze and evaluate the credibility of sources?</i> | <ul style="list-style-type: none"> Summarizes information and arguments from sources and treats all evidence as equally credible OR One source dominates | | <ul style="list-style-type: none"> Summarizes information and arguments from sources and begins to question the credibility of some of the evidence | | <ul style="list-style-type: none"> Analyzes information or arguments from sources, taking into account author point of view, purpose, or other relevant context information, to question and make judgments about their credibility | | <ul style="list-style-type: none"> Thoroughly analyzes and evaluates information and arguments from sources, taking into account author point of view, purpose, or other relevant context information, to select credible sources |
| APPLY / TRANSFER KNOWLEDGE (REASONING) <i>What is the evidence that the student can develop an accurate understanding of a topic and apply/transfer their knowledge to a new situation ?</i> | <ul style="list-style-type: none"> Relies primarily on one source to develop an over-simplified understanding of a topic/issue Makes broad generalizations that are based on faulty reasoning OR over-generalizes Understanding of the problem at hand is incomplete | | <ul style="list-style-type: none"> Identifies broad or general relationships among evidence from diverse sources (e.g., compare and contrast) to build a reasonable understanding of a topic/issue Makes broad but reasonable generalizations Draws connections from generalizations to develop a general understanding the problem at hand | | <ul style="list-style-type: none"> Identifies clear and specific relationships among evidence from diverse sources (e.g., compare and contrast, classify, cause and effect, process and product) to build an accurate understanding of a topic/issue Makes logical, evidence-based generalizations Draws specific connections and extends generalizations to develop an accurate understanding of the problem at hand | | <ul style="list-style-type: none"> Develops a systems model to precisely represent the complex relationships among evidence from diverse sources to build a credible, knowledge-based, complex understanding of a topic/issue Makes logical, evidence-based generalizations, with an understanding of their limitations and exceptions Draws specific connections and extends generalizations to develop an accurate and complete understanding of the problem at hand |





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| <p>PROBLEM SOLVE <i>What is the evidence that the student can identify, weigh, and select from multiple approaches to solve a problem?</i></p> | <ul style="list-style-type: none"> Identifies an approach to solve the problem, answer the question, or meet the challenge that is not likely to succeed or is based on guesswork Explanation for the proposed solution or approach is unclear | | <ul style="list-style-type: none"> Identifies one plausible approach to solve the problem, answer the question, or meet the challenge Explains clearly why the proposed solution or approach is likely to be effective | | <ul style="list-style-type: none"> Identifies multiple plausible approaches to solve the problem, answer the question, or meet the challenge Weighs the relative effectiveness of proposed solutions or approaches and selects an approach that is likely to be effective, with clear, detailed explanations supported by evidence | | <ul style="list-style-type: none"> Identifies multiple plausible approaches to solve the problem, answer the question, or meet the challenge, including the limitations of each approach Weighs the relative effectiveness of proposed solutions or approaches and selects the approach most likely to be effective, with clear, detailed, and convincing explanations supported by evidence |
| <p>EVALUATE & REFLECT <i>What is the evidence that the student can evaluate the effectiveness of an approach, or propose a new course of action when faced with unexpected/unsuccessful results?</i></p> | <ul style="list-style-type: none"> Does not acknowledge alternative explanation or interpretation, unanswered question, potential source of error, or limitation of proposed approach Dismisses unexpected or unsuccessful results without attempting to identify possible reasons or alternative approaches | | <ul style="list-style-type: none"> Briefly alludes to one alternative explanation or interpretation, unanswered question, potential source of error, or limitation of proposed approach When faced with unexpected or unsuccessful results, attempts to identify a possible reason, and makes a surface-level revision to the approach | | <ul style="list-style-type: none"> Acknowledges alternative explanations or interpretations, unanswered questions, potential sources of error, or limitations of proposed approach to solve the problem, answer the question, or meet the challenge When faced with unexpected or unsuccessful results, identifies multiple explanatory factors, and proposes a logical course of action that is likely to be effective | | <ul style="list-style-type: none"> Acknowledges and responds to alternative explanations or interpretations, unanswered questions, potential sources of error, or limitations of proposed approach to strengthen or revise the approach When faced with unexpected or unsuccessful results, weighs multiple explanatory factors, and proposes a logical course of action that is most likely to be effective |

