

CORE ABILITY RUBRIC

Think Critically and Solve Problems

Final 02.21.12

	COMPREHENSION/INTRODUCTION (Novice) Need for improvement outweighs apparent strengths. Evidence of the outcome present.	PRACTICE (Beginner) Strengths and need for improvement are about equal. Exhibits some accomplishment in the outcome.	APPLICATION/COMPETENCE (Competent Practitioner) Shows strength in this outcome. Applies outcome in multiple contexts.
Integrate experience, reason, and information to make meaningful conclusions, judgments, and/or products.	Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial. Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified. Attempts to describe assumptions.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed. Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly. Explicitly describes most assumptions and provides compelling rationale for why assumptions are appropriate.	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors. Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order. Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.
Integrate mathematic and scientific based knowledge and understanding into problem-solving activities.	Reviews results superficially in terms of the problem defined with little, if any, consideration of need for further work. Completes conversion of information but resulting mathematical or scientific portrayal is only partially appropriate or accurate.	Reviews results relative to the problem defined with some consideration of need for further work. Competently converts relevant information into an appropriate and desired mathematical or scientific portrayal.	Reviews results relative to the problem defined with thorough, specific considerations of need for further work. Skillfully converts relevant information into an insightful mathematical or scientific portrayal in a way that contributes to a further or deeper understanding.