

Innovation Lab Network Performance Assessment Project
 Quality Criteria for Performance Assessments
 Human Impacts on Marine Ecosystems

Quality Criteria	Yes	Yes, with Slight Modifications	No	Rationale/Suggestions
1. Focus on Deeper Learning				
a. Does the task require the demonstration and/or application of complex skills (e.g., Critical Abilities, DOK Levels 3 and 4, 21 st century skills, Key Cognitive Strategies)?*	✓			This task requires the demonstration of several Critical Abilities, specifically: Research, Analysis of Information, and Communication in Many Forms.
b. Can students' responses to this task (what students are asked to produce) provide evidence of important college/career readiness skills and Critical Abilities (e.g., collaboration, research skills, evidence-based communication)?*	✓			This task involves several key college and career readiness skills, such as analytical writing and synthesis of information from multiple sources.
c. Does the task address key concepts and skills in the discipline that are transferable to other contexts?*	✓			One of the major concepts addressed in this task is the idea that humans and ecosystems affect one another, and that humans have a responsibility to remediate their negative effects on the environment. This concept is widely applicable to many contexts within environmental science. The skills of research, synthesis, and analysis are also transferable to virtually any context both in and out of science. Students will be asked to write critical essays that synthesize multiple sources of evidence across disciplines.
2. Alignment to Standards				
a. Does the task measure key skills and major claims emphasized by the Common Core State Standards (CCSS) and/or NGSS? *		✓		The task does not make explicit the NGSS standards to which it is aligned. The major performance expectation is HS-ESS3-4: "Students who demonstrate understanding can evaluate or refine a technological solution that reduces impacts of human activities on natural systems." The disciplinary core ideas associated with this performance expectation are well aligned to the content required for this task: ESS3.C: Human impacts on earth systems. Scientists and

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				engineers can make major contributions by developing technologies that produce less pollution and waste and that preclude ecosystem degradation. ETS1.B: Developing possible solutions. When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts.
b. Can students' responses to this task (what students are asked to produce) be scored using CCSS/NGSS aligned rubrics? *	✓			Students are asked to write a rigorous evidence-based essay about how humans affect ecosystems and ways we can remediate negative effects. This performance task is well aligned to several key Common Core standards as well as several Disciplinary Core Ideas from the NGSS, so a CCSS/NGSS aligned rubric would be well-suited to scoring this task.
c. Are the scoring criteria--rubrics, point scoring systems, checklists (if provided)--aligned to key expectations of the CCSS/NGSS?		✓		The rubric is well aligned to major aspects of the CCSS, but the content standards are absent from the rubric. The rubric would better meet this criterion if there were elements that evaluated the content standards (see DCIs listed above in 2.a.)
d. Is the rigor of the task appropriately matched to the grade-level standards being assessed?	✓			The reading, writing, and analysis skills necessary to complete the task are of a relatively high rigor, which is to be expected of a task intended for upper grade students in an AP Environmental Science course.
3. Student Choice and Agency				
a. Does the task allow for a variety of responses and/or solution pathways? *	✓			There is a variety of texts that students can draw upon in crafting their argument, and there is not one predetermined answer to the open-ended question of remediation of negative human impacts.
b. Does the task offer opportunities for student ownership and student choice (e.g., selecting a research question or topic; selecting sources; etc.)?	✓			There are multiple answers to the research question, and a wide variety of text sources that students might draw upon in providing supporting examples for their essay.
c. Does the task require student-initiated planning and management of information/data and ideas (e.g., determining	✓			The overall arc of the task involves reading texts, analyzing the content, and constructing an evidence-based essay. This is long term and complex enough that

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strategies for solving a problem; designing an investigation; deciding how to present findings; etc.)?				students need to plan their use of information and organization of their response.
4. Relevance and Authenticity				
a. Is task content represented in a way that is appropriately authentic (i.e., not overly hypothetical), relevant (i.e., relatable), and/or meaningful to students and the discipline (e.g., topic connects to students' lives, task simulates authentic purpose and audience)? *	✓			The problem of human impacts on marine ecosystems is a significant one. The question of how we can remediate our negative effects is potentially relevant to everyone, since it comes down to human choices and actions that can lead to change. A student with a yearlong course background in environmental science will have developed an appreciation for the way our choices affect the environment.
b. Is the task related to real world problems, contexts, and/or purposes?	✓			The problem of negative environmental impacts is very real, and is a contemporary pressing issue that scientists are currently working on.
5. Suitable for Diverse Student Populations				
a. Is the task, at its core, free of bias that might disadvantage specific student populations and free of stereotypes in language, content, and design? *	✓			The basic knowledge needed to succeed in this task comes from the course material. There is no evidence of bias against any population.
b. Does the task include, or allow for the use of, a variety of stimuli?	✓			There are many different text sources, as well as videos that the students will be able to use as evidence in their final product.
c. Does the task provide instructional scaffolds to support student learning and skill development toward successful completion of the task?	✓			Thorough instructional scaffolds are given, including guides for how to use instructional materials and prepare students for the final product.
d. Does the task include appropriate recommendations for accommodations and differentiation to provide access for diverse students?		✓		The task includes several elements that could be considered accommodations and differentiation, such as an essay outline, peer review, student samples, and graphic organizers. However, these recommendations are not identified as accommodations. The task would better meet this criterion if there were a designated section for accommodations.

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6. Design of Student Task				
a. Is the overall task prompt clear (e.g., clear student directions, unambiguous graphics)? *	✓			The task prompt is clearly stated in a section titled “What task?”
b. Is task information presented in an organized way?	✓			The task information is organized very clearly, with sections for the overall task information, skills needed, and instructional guides.
7. Curriculum-Embedded				
a. Is the task feasible for most school/classroom environments (e.g., access to necessary resources)?	✓			The task requires common materials such as printed articles, projected videos, and graphic organizers.
b. Does the task include opportunities for independent work as well as interaction/collaboration with peers?	✓			The main product is an individual essay, but there are opportunities for discussion and peer review of the essay.

Task Materials	Yes	No	Comments
a. Is the task missing any referenced accompanying materials (resources, handouts, rubrics etc.)? If yes, please indicate which materials are missing.		✓	
b. Does this task contain topics/materials/texts that might be sensitive for some students? If yes, please explain.		✓	

Comments: Overall, this is a rigorous task that addresses several Critical Abilities and supports the development of college and career readiness skills such as critical analysis and written communication. This task needs only minor revisions: NGSS standards should be listed, the rubric should be revised to address the NGSS standards that are aligned with the task, and there should be a designated section for recommendations for accommodations and differentiation.