TOP

EXPLORATION 1: RUBRIC

Evaluate—Scoring Rubrics

Content Standard

4 Advanced	3 Proficient	2 Partially Proficient	1 Beginning
Student identifies a specific change in wind turbine design that would increase use of wind turbines in densely populated areas. Student provides criteria and constraints for designing a new style wind turbine. Student's claims demonstrate sound scientific reasoning. Student cites sources of information to support choice of criteria and constants.	Student identifies a specific change in wind turbine design that would increase use of wind turbines in densely populated areas. Student provides criteria and constraints for designing a new style wind turbine. Student's claims demonstrate sound scientific reasoning.	Student's identification of a change in wind turbine design is unclear. Or: Criteria and constraints are incomplete or unclear. Or: Use of scientific reasoning needs improvement.	Student states criteria and constraints. If additional support is provided, it is incomplete or has major errors in application of science.

Science and Engineering Practice

4 Advanced	3 Proficient	2 Partially Proficient	1 Beginning
Student applies scientific principles to design an object, tool, process, or system. Student constructs an oral and written argument to support wind turbine design solution.	Student applies scientific principles to design an object, tool, process, or system.	Student completes design requirements, but design and/or argument has errors in logic, engineering, and/or supporting evidence.	Student is missing required documentation of the engineering project, or it is incomplete.

Crosscutting Concept

4 Advanced	3 Proficient	2 Partially Proficient	1 Beginning
Student can explain short- and long-term consequences, positive as well as negative, for wind energy technology. Student explains how use of wind energy is connected to societal needs, desires, and values; scientific research; and climate, natural resource, and economic conditions. Student uses data and specific examples to support explanations.	Student can explain short- and long-term consequences, positive as well as negative, for wind energy technology. Student explains how use of wind energy is connected to societal needs, desires, and values; scientific research; and climate, natural resource, and economic conditions.	Student completes requirements, but explanations have errors in information, data, or logic.	Student's explanation has multiple errors or is incomplete.