Wind Power — Green Technologies

Are you a big FAN of renewable energy? Then come explore the world of wind turbines! In this interactive program students breeze through an introduction of wind, engineer a pinwheel to harness mechanical energy, and explore wind turbine dynamics. This program will blow you away!

Grade: Elementary, Middle, High School

Standards Supported

Next Generation Science Standards:

MS-ETS1-1. Engineering Design
Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
MS-ETS1-2. Engineering Design
Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
MS-ETS1-3. Engineering Design
Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
MS-PS3-5. Energy
Construct, use, and present oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon that when the kinetic energy of an object changes, energy is transferred to or from the object.
MS-ESS3-3 Earth and Human Activity
Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

Ocean Literacy Principles:

Principle 6 A.10. The ocean and humans are inextricably connected.
Humans obtain energy from the ocean via wind, wave, oil, and natural gas.