Exploring Wind Energy: Secondary Level

Objectives: As a result of this lesson, students will understand how electricity is generated from the wind. Students will be able to measure the wind, measure electricity, and assemble a model turbine.

Secondary students develop a comprehensive understanding about wind formation, wind energy, and electricity generation from wind through reading, critical thinking activities, and hands-on investigations. The kit comes with a Teacher Guide, a class set of Student Guides, and the materials necessary to conduct the activities, including two KidWind Basic Turbines and a geared nacelle to convert one turbine to a geared turbine.

This kit includes:
Anemometer
Wind gauge
Wind vane
Genecon and Book
Box of snow cone cups
Multimeters
Compass
Large straws
Small straws
Straight pins
Pencils
Small binder clips
Alligator Clips
Masking Tape
%” Dowels
18” Long balsa sheets

16” Long chloroplast sheets
Hub
PVC 1’ 90 degree Joints
PVC 1’ T-Joints (2 with drilled holes)
PVC 6” pipe
PVC 24” pipe
PVC 2” pipe
PVC couplers
Generators
Geared Head Assembly
%” Dowels
Visual Voltmeter
Extra Generators
Teacher guide
Student Guides

Not in this kit:
Foam cups
Hole punch
Rulers
Scissors
Permanent Markers
Tape

Additional Equipment Needed:
Fan

*See video with assembly instructions and tips at https://www.youtube.com/watch?v=mjsGrWioULk

*To replenish any materials used, lost or broken during classroom use, check craft, hardware, or hobby stores. For more information or to purchase this kit, visit NEED.org