Energy from the Wind: Intermediate Level

Objectives: As a result of this lesson, students will understand how electricity is generated from the wind. Students will be able to build their own anemometers, and experiment with blade design and pitch on a wind turbine.

Intermediate students learn 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
- Small binder clips
- Pencils
- Paperclips
- Duct Tape
- Masking Tape
- Sand paper
- ¼” Dowels
- 18” Long balsa sheets
- 16” Long chloroplast sheets
- Protractors
- 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
- Alligator Clips
- Visual Voltmeter
- Extra Generators
- Teacher guide
- Student Guides
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- Not in this kit: Rulers
- Scissors
- Glue
- Permanent Markers
- Tape
- Pennies
- Poster board
- String
- Meter Stick
- Watch with second hand
- Extra blade materials
- Dry Cell battery (1.5 volt, AAA, AA, or D)
- 1 Bulb (3.8V, 0.3A) in socket with leads
- Additional Equipment Needed: Fan

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

*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