Objectives: As a result of this lesson, students will understand the benefits of renewable energy, the construction of a wind turbine, and how turbines generate electricity from the wind, and the factors that make a turbine most efficient.

In this science kit, students will build their own model turbine and test the many components to find how to build the most efficient turbine. Students will learn about turbulence and resistance, different shaped blades, blade angles, wind on an inclined plane, as well as many other aspects of wind energy!

This kit includes:
(1) Joint pin
(4) Axle Locks
(4) Shaft plugs
(20) Anchor pins
(24) Button pins
(6) Perpendicular connectors
(6) Washers
(1) Cotton String
(1) Light-emitting diode (LED)
(4) Screws
(5) Small gear wheels
(3) Medium gear wheel s
(1) Large gear wheel
(3) Long axles
(1) Part separator tools
(2) Medium axles
(2) Universal adapter housing

(2) Universal adapter lids
(1) Pre-assembled generator
(1) Battery mount
(4) Small frames
(2) Short eleven-hole rods
(6) Long seven-hole rods
(3) Extra short five-hole rods
(2) Large Frames
(3) Cable ties
(1) Wind turbine blade set
(1) Aluminum tube
(1) Connector cable
(1) Experiment manual

*Any materials that are lost or broken during classroom use must be replenished before being returned.