



## Adult Books

Coyne, Harold. ***Windmills: Teacher's Guide***. Dubuque, IA: Kendall/Hunt Publishing Company, 2001.

This module allows students to explore the nature of energy transfer by manipulating design elements and construction materials to create a simple windmill. Challenges include lifting the greatest amount of weight possible, enabling the maximum power possible, and producing the maximum speed possible. Through the challenges, students also investigate force, motion, torque, work, and power.

Gibilisco, Stan. ***Alternative Energy Demystified***. New York: McGraw Hill, 2007.

Because of current events, geopolitics, and natural disasters, the cost of fuel is front and center in our lives. This book provides a concise look at all forms of energy, including fossil fuels, electric, solar, biodiesel, nuclear, hydroelectric, wind, and renewable fuel cells. You will get explanations, definitions, and analysis of each alternative energy source from a technological point of view.

Gipe, Paul. ***Wind Energy Basics: A Guide to Small and Micro Wind Systems***. White River Junction, VT: Chelsea Green Pub. Co., 1999.

Wind Energy Basics is an excellent introduction to wind power for educational programs concerned with state-of-the-art renewable energy options, and will be indispensable for those considering today's generation of quiet, efficient, and reliable "micro" wind turbines. The book includes the unique "standard small wind turbine rating" developed by the author, which is designed to help readers wade through conflicting performance claims by manufacturers in the U.S. and overseas. Also included is detailed information on planning, siting, and installing a wind system, and on integrating wind power with solar for more cost-effective and reliable off-the-grid applications.

Gipe, Paul. ***Wind Power: Renewable Energy for Home, Farm, and Business***. White River Junction, VT: Chelsea Green Pub. Co., 2003.

Wind energy today is a booming worldwide industry. The technology has truly come of age, with better, more reliable machinery and a greater understanding of how and where wind power makes sense--from the independent homestead to a grid-connected utility-wide perspective. Heightened concerns about our environment mean that this resurgence of interest in wind--a natural and widespread power source--is here to stay.

Passero, Barbara. ***Energy Alternatives***. Detroit MI: Greenhaven Press, 2006.

With an introduction reminding readers that Americans represent five percent of the world's population but consume 26 percent of its oil, this volume examines the possibilities of alternative energy sources.

***Catching the Wind, Designing Windmills: Air, Weather, and Mechanical Engineering for Elementary Students***. Boston, MA: Museum of Science, 2006.

This instructor's guide is to be used in conjunction with "Leif Catches the Wind." It offers lesson plans, literacy connections, and student assessment for activities involving mechanical engineering.

***Leif Catches the Wind: A Mechanical Engineering Story***. Boston, MA: Museum of Science, 2005.

Leif and his cousin Dana are trying to help fish in a local pond that appear to be sick. Inspired by the wind turbines of Denmark, Leif hopes to use wind energy to help solve the problem. Enlisting the help of Leif's mother, a mechanical engineer, Leif and Dana design a windmill to save the fish. Readers are invited to create their own windmills and design blades to make their windmills spin.

## Young Adult Books

Cross, Mike. ***Wind Power***. New York: Gloucester Press, 1985.

Explores how wind can be harnessed as an energy source using pumps, turbines, and other technology.

Gardner, Robert. ***Experimenting with Energy Conservation***. New York: Franklin Watts, 1992.

Discusses energy and its conservation and provides experiments with which to investigate the topic.

Gibson, Diane. ***Wind Power***. Mankato, MN: Smart Apple Media, 2002.

Describes wind energy and how it is generated and used. Includes a simple experiment.

Graham, Ian. ***Wind Power***. Austin, TX: Raintree Steck-Vaughn, 1999.

Discusses traditional and developing ways of using wind power as a source of energy.

Morgan, Sally. ***From Windmills to Hydrogen Fuel Cells: Discovering Alternative Energy***. Chicago, IL: Heinemann Library, 2007.

Discusses alternatives to traditional energy sources that contribute to global warming and that are increasingly scarce.

Rybolt, Thomas R. ***Environmental Experiments About Renewable Energy***. Hillside, NJ: Enslow Publishers, 1994.

This title contains 16 easy-to-perform experiments, each of which answers a question about sources of renewable energy. Each project is followed by a discussion of the various phenomena explored, as well as an "Other Things to Try" section of related activities. Most of the materials required are easily available. Simple, yet thorough, this volume is excellent for teachers to use with their classes or for children to use on their own.

Sherman, Josepha. ***Wind Power***. Mankato, MN: Capstone Press, 2004.

Windmills have been used for thousands of years. Though sleek and high-tech, today's windmills are still used to create energy. Read about the benefits and drawbacks to this energy source, as well as the technology that can harness energy wherever the wind blows.

Walker, Niki. ***Generating Wind Power***. St. Catharines, ON: Crabtree Pub., 2007.

People have been using the wind's energy for thousands of years to travel, power machinery, generate electricity, and for agriculture. *Generating Wind Power* will teach young readers about the benefits of harnessing the wind for everyday use. This fascinating new book features full-color illustrations and photographs, as well as case studies from around the world.

Woelfle, Gretchen. ***The Wind at Work: An Activity Guide to Windmills***. Chicago, IL: Chicago Review Press, 1997.

An introduction to windmills and their advantages as renewable energy providers, with activities for understanding some of the principles of wind.

## Media

***Energy Resources: Use and Conservation [DVD]***. 23 min. Schlessinger Media, 2006.

Viewers discover renewable and nonrenewable sources of energy and how to play an active role in energy conservation. Grades 5-8.

***Waves/Wind [VHS]***. 52 min. Disney, 1990.

*Waves*: catch a few waves with the Science Guy! Bill explores sound waves, light waves, seismic waves, energy waves, and even "the wave" that's so popular with stadium crowds.

*Wind*: there's a lot more blowing around than hot air when Bill Nye the Science Guy goes parachuting and sailing to show the relationship between the Sun, Earth, wind, and weather. Bill visits a wind farm and checks out way cool windsurfers to show some of the ways to harness the power of the wind.

***Wind [VHS]***. 23 min. Schlessinger Media, 1998.

Learn the science behind wind with ABC's Good morning, America's weatherman, Spencer Christian and friend. Grades 4-7.