

Illinois Wind for Schools

Supplementary curriculum and resources (free unless otherwise noted)

Summer 2013 www.ilwfs.org

National Energy Education Development Project (NEED) – wide variety of energy-related lessons

<http://www.need.org/> then click on “Educators”

WindWise and KidWind – variety of wind-energy related lesson plans and videos

<http://learn.kidwind.org/teach>

Danish Wind Energy Association Wind Energy Reference Manual – online lessons about wind energy principles

wiki.windpower.org/index.php/Index

Wind with Miller – very rudimentary lessons about wind energy and wind turbines

miller.dwed.org.cn/course/view.php?id=2

KidWind – model wind kits, materials, supplies and lesson plans

www.kidwind.org

National Geographic Interactive web display: Harness the Power of Wind – free online explanation of wind energy and interactive simulation of wind turbines

<http://environment.nationalgeographic.com/environment/global-warming/wind-power-interactive/>

4-H Wired for Wind Curriculum - (Many links available to free online resources, curriculum is also available for purchase – about \$15)

www.4-h.org/curriculum/wind/

STEMfinity STEM Education – renewable energy educational kits for purchase, wide range of prices

www.stemfinity.com

DefinedSTEM – STEM education lesson plans available for purchase (free trial available)

www.definedstem.com/

Helpful Resources: Wind Energy

Center for Renewable Energy at Illinois State University: www.renewableenergy.ilstu.edu
Databases, Reports, Conference Materials, FAQ's on renewable energy

Illinois Institute for Rural Affairs (Wind Energy section): <http://www.illinoiswind.org/windData/>
Met tower data, wind maps, wind site selection tool, zoning database

American Wind Energy Association (AWEA): www.awea.org
The authoritative source on overall industry trends, statistics and market information
-AWEA Small Wind Site: <http://www.awea.org/learnabout/smallwind/index.cfm>
-Small Wind Turbines: http://www.awea.org/learnabout/smallwind/equipment_providers.cfm

National Renewable Energy Laboratory: www.nrel.gov/wind
Wind maps, basic technology fundamentals, reports

U.S. Department of Energy Wind Program: <http://www1.eere.energy.gov/wind/index.html>
Reports, technology fundamentals, maps, large and small wind energy

Wind Powering America program: www.windpoweringamerica.gov
Maps, data, education resources
-Illinois Small Wind Consumer Guide: www.windpoweringamerica.gov/filter_detail.asp?itemid=310

Database of State (and Federal) Incentives for Renewables & Efficiency: www.dsireusa.org
Extensive list of financial incentives available at the state and federal levels

Windustry: www.windustry.org
Community Wind Resources, Toolkit and Links from Windustry.org

U.S. Energy Information Administration: <http://www.eia.gov/>
Comprehensive data sets on past and projected energy consumption

Meteorological Tower Search: <http://www.windalert.com/#search>
Find local meteorological towers and download data from a met tower near you

Google Earth Wind Map Live Model <http://earth.nullschool.net/>

How does a wind turbine work?
NREL: http://www.nrel.gov/learning/re_wind.html
U.S. DOE: http://www1.eere.energy.gov/wind/wind_how.html
Windustry: <http://windustry.org/wind-basics/wind-basics>

Curriculum Resources:
Department of Energy Curriculum: <http://www1.eere.energy.gov/education/lessonplans/default.aspx>
NEED Project: <http://www.need.org/>
KidWind: <http://learn.kidwind.org/windwise/curriculum>
U.S. Energy Information Administration: <http://www.eia.gov/kids/>