



Waterwheels, Windmills and Turbines

Students construct simple turbines to investigate how the energy in wind and water can be harnessed to do work.

Grade Level: K–4 (5–8)

Subject Areas: English Language Arts, Science, Social Studies

Setting: Classroom

Time: 50 minutes

Major Concept Areas:

- Natural laws that govern energy
- Development of energy resources

Getting Ready:

Construct a turbine prior to the class and use this as a model. This turbine can also serve as the pinwheel

Objectives

- demonstrate how wind and water can move a simple turbine; and
- recount the role of turbines in electricity generation.

Rationale

Understanding how turbines operate helps students explain how humans have developed technology to further their ability to use energy resources.

- *Facts about Hydropower*
- *Facts about Wind Energy*
- *Electricity from Falling Water*
- *Electricity from Fossil Fuels*
- *Electricity from Uranium*