



Kids Inspiring Change: Energy from Wind and Moving Water Curriculum Expectations for Grade 2

Science and Technology

Energy and Control: Energy from Wind and Moving Water

Overall Expectations:

- Demonstrate an understanding of the movement of air and water as sources of energy.
- Design and construct devices that are propelled by moving air or moving water.
- Identify wind and moving water as renewable sources of energy and determine the advantages and disadvantages of using them.

Specific Expectations:

Understanding Basic Concepts

- Identify movement as an outcome of energy input (e.g. fuel enables cars, trucks, and buses to move; electricity enables the fan in the kitchen to move; food enables humans to move).
- Recognize that it is the movement of air and water that produces energy and that air and water are not by themselves sources of energy.
- Identify various ways in which moving water is used as a form of energy (e.g. hydroelectricity, tidal energy).

Developing Skills of Inquiry, Design, and Communication

- Design and construct a device propelled by air (e.g. a kite, a pinwheel, a balloon rocket).
- Design and construct a system that controls the flow of water and/or air using a variety of mechanisms (e.g. a musical instrument, a fountain, valves, a dam).
- Use appropriate vocabulary in describing their investigations, explorations, and observations (e.g. use terms such as renewable and movement when describing energy).

Relating Science and Technology to the World Outside the School –

- Identify devices that use moving air and moving water as energy sources (e.g. windmills, water wheels) and describe what happens to these devices when the air or water is still.
- List activities that are affected by moving water and wind (e.g. fishing, sailing, flying a plane).
- Recognize that moving air and moving water can be sources of energy for electrical power.