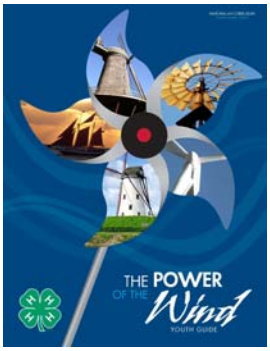

Title: The Power of the Wind

Type of 4-H Material: Group Curriculum

Grades: 6th – 8th (Ages 11-13)

Format: Project manual

Category: Science, Engineering and Technology

Focus Area: Wind power, engineering, renewable energy

Summary: Consists of 1 Youth Guide and 1 Facilitator's Guide

The activities in *The Power of the Wind* involve young people in the engineering design process as they learn about the wind and its uses. Youth work with members of a team to design, create, build, and test a wind powered device. The device must solve a problem and requires the designers to balance options and constraints. Participants are guided to make adjustments and retest until the vehicle or machine solves the original problem. They learn about transfer of energy and using machines to make work easier. They explore properties of electromagnetism while using wind power. Some activities ask youth to use their research and analytical skills to examine national, state and local issues surrounding wind power. Skills such as teamwork, learning from others, planning, organizing and following through on a project are developed and utilized throughout.

As youth construct wind powered devices, they:

- learn about the wind and how its energy is used to do work and produce electricity.
- become aware that all energy comes originally from the sun and that it can be transformed in many ways.
- learn how geography affects available wind power capacity.
- explore wind power projects in various parts of the United States.
- consider the factors necessary for a successful wind power project.
- share what they have learned with leaders in their communities.

Online content: www.4-H.org/curriculum/wind

For more information, or to purchase National 4-H Curriculum: www.4-hmall.org/curriculum

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