

Central IV County Fairs Premium List

ELECTRICITY

The name and county of each Science, Engineering and Technology exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks. One exhibit per class unless otherwise noted. Several classes require a display board which should be a height of 24" and not exceed 1/4" in thickness. A height of 23 7/8" is acceptable to allow for the saw kerf (width) if two 24" boards are cut from one end of a 4'x8' sheet of plywood. Nothing should be mounted within 3/4" of the top or bottom of the board. Fabricated board such as plywood, composition board, or particle-type lumber may be used for display boards. Display boards should be sanded and finished to improve their appearance. The finish on a display board will be judged as a woodworking exhibit. Display boards should include an overall title for the display, plus other necessary labeling. All reports should be computer generated, enclosed in a clear, plastic cover, and attached securely to the display. Reports should be written using the scientific method whenever possible (background, the question or hypothesis, what you plan to do and what you did, method used and observations, results, what you learned).

Division 870: Electricity

Unit 1: Magic of Electricity

***H870020 - Create your own flashlight** using items found around your house. No kits please.

Unit 2: Investigating Electricity Unit 2

***H870021 - Three Way Switch.** Build using two D cell batteries, two battery holders, light bulb, bulb holder, 3"x6" piece of cardboard, six brass paper fasteners and approx. 2' of 24 gauge insulated wire.

Unit 3: Wired For Power

H870001 - Electrical Tool/Supply Kit - Create an electrical supply kit to be used for basic electrical repair around the house. Include a brief description of each item and its use. Container should be appropriate to hold items.

H870002 - Lighting Comparison - Display studying the efficiency of various lighting (incandescent, fluorescent, halogen, Light Emitting Diodes, etc.). Exhibit could be a poster display, or an actual item.

H870003 Electrical Display/Item - Show an application of one of the concepts learned in the Wired for Power project. Examples include: re-wiring or building a lamp, re-wiring or making a heavy duty extension cord or developing an electrical diagram of a house. Exhibit could be a poster display, or an actual item.

H870004 Poster which exemplifies one of the lessons learned in the Wired for Power Project. Posters can be any size up to 28"x22".

***class exhibited at county fair only — not eligible for state fair**

Greeley County • Box 290 • Greeley NE 68842-0290 • 308-428-2835 • Greeley-County@unl.edu
Howard County • 612 Indian Street Suite 1 • Saint Paul NE 68873-1642 • 308-754-5422 • Howard-County@unl.edu
Sherman County • Box 459 • Loup City NE 68853-0459 • 308-745-1518 • Sherman-County@unl.edu
Valley County • 801 S Suite 1 • Ord NE 68862-1857 • 308-728-5071 • Valley-County@unl.edu

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Unit 4: Entering Electronics

- H870005 - Electrical/Electronic Part Identification** - Display different parts used for electrical/electronic work. Exhibit should show the part (either picture or actual item) and give a brief description, including symbol of each part and its function. Display should include a minimum of 10 different parts.
- H870006 - Electronic Display** - Show an application of one of the concepts learned in the Entering Electronics project. Examples include: components of an electronic device (refer to p. 35 of the Entering Electronics manual).
- H870007 - Electronic Project** - Exhibit an electronic item designed by the 4-H'er or form a manufactured kit that shows the electronic expertise of the 4-H'er. Examples include: a radio, a computer, or a volt meter.
- H870008 - Poster** which exemplifies one of the lessons learned in the Entering Electronics Project. Posters can be any size up to 28"x22".
- H870010 - Careers Interview** – Interview someone who is working in the field of electricity and research that career. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1" margins. Multimedia reports should be between 3 to 5 minutes in length.

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