

ELECTRICITY

Department 23

Check-In

Tuesday, 1 - 7 p.m., Exhibition Hall

Judging

Tuesday, 1 - 7 p.m. Individual Conference Judging, Exhibition Hall

Department Chairperson

Mike Iselin - (608) 445-9367

Superintendents

****Superintendents Needed. Please email the Fair office at info@danecountyfair.com**

Eligible 4-H Project Areas

Electricity

Regulations

1. For safety reasons, please inspect your project at home before use at the Fair.
2. Electric plugs must be the "put together" type.

<u>Premiums</u>	<u>Blue</u>	<u>Red</u>	<u>White</u>	<u>Pink</u>
Class A	\$1.75	\$1.50	\$1.25	\$1
Class B	\$2	\$1.75	\$1.50	\$1.25
Class C	\$2.25	\$2	\$1.75	\$1.50
Class D	\$3	\$2.50	\$2	\$1.50

CLASS A. Magic of Electricity - Unit 1

- 1) Display of simple switch
- 2) Alternating current display
- 3) Electric question board
- 4) Steady hand tester
- 5) Simple electric attraction and repulsion exhibit
(Securely attach a 3"x5" card explaining how it works.)
- 6) Simple static electrical generator
(Securely attach a 3"x5" card explaining how it works.)
- 7) Display showing wiring in a simple circuit
- 8) Display showing closed/open circuits
- 9) Display on conductors
- 10) Display on magnetism
- 11) Display on electrical energy transferred into motion

CLASS B. Investigating Electricity - Unit 2

- 1) Homemade electric motor
- 2) Display showing a simple step-down transformer
(Securely attach a 3"x5" card explaining how it works.)
- 3) Display of a simple electromagnet
- 4) Simple homemade buzzer
- 5) Display showing circuit diagrams with explanation
- 6) Example of series circuit with explanation
- 7) Example of parallel circuit with explanation
- 8) Momentary Switch
- 9) Three Way Switch
- 10) Display showing a soldered connection
- 11) Rocket Launcher
- 12) Burglar Alarm

CLASS C. Wired for Power - Unit 3

- 1) Poster (22"x28") showing five types of lighting with a written explanation of how this is defined
- 2) Diagram or photographs of electrical improvements made at home
- 3) Wiring layout of your home or other building
- 4) Electrical Tool and Supply Kit
- 5) Display of symbols on wires and cables and their meanings
- 6) Constructed or repaired light - duty extension cord
(Attach a 3"x5" card explaining work performed.)

- 7) Constructed or repaired heavy - duty extension cord
(Attach a 3"x5" card explaining work performed.)
- 8) Constructed or repaired lamp
(Attach a 3"x5" card explaining work performed.)
- 9) Display showing how to replace a switch

CLASS D. World of Electronics - Unit 4

- 1) Display on Soldering Circuit Assembly
- 2) Display on Diodes
- 3) Display on voltage and polarity
- 4) "Blinky" Flasher
- 5) Alarm that activates in the presence of light
- 6) Light Meter
- 7) SCR Intruder Alarm
- 8) 6-8 Watt homemade amplifier with explanation
- 9) 22"x28" poster showing at least 12 common electric symbols

Special Awards and Sponsorships

Miller & Sons Supermarket - Award and rosette to Champion and rosette to Reserved Champion of the designated class.