

## Department 23 – Electricity

Superintendents:

**Entry/Judging Day** – 1 p.m. – 8 p.m. Tuesday of the fair

**Entry/Judging Time** – 1 p.m. - 8 p.m., Tuesday face to face judging only

**Location** – Exhibit Building

**Check Out** – Exhibits will be released between 3:00 pm to 6:00 pm. on Sunday of the fair

### Requirements:

- Youth eligible to exhibit in this department are those enrolled in a 4-H Electricity Project or other youth groups carrying a similar program as their supervised project
- Posters must be 14" x 22".
- Scrapbooks will be 8 ½" x 11" or 12" x 12". The scrapbook should describe the work done in the project. Pictures and sketches are encouraged.

<b>PREMIUMS</b>	<b><u>1st</u></b>	<b><u>2nd</u></b>	<b><u>3rd</u></b>	<b><u>4th</u></b>
	2.50	2.25	2.00	1.75

### CLASS A ELECTRICITY - PROJECT CODES 50301, 50302, 50303, 50304

Lot Numbers

1. Homemade flashlight
2. Homemade open & close circuit board
3. Poster on safety in the home
4. Poster listing appliances & devices in or out of the home that use electricity.
5. Display of a simple electromagnet
6. Build a compass
7. Build a galvanometer
8. Build an electric motor
9. Homemade series circuit board
10. Homemade parallel circuit board
11. Homemade electric question board
12. Homemade three-way switch
13. Build a rocket launcher
14. Build an alarm
15. Display of conductors and insulators
16. Poster or display on different meters and how to read them
17. Display of circuit breakers and fuses
18. Display of different types of plugs and indicate their uses
19. Display of different cords (minimum of 6 - about 6" long) indicating proper use
20. Trouble light
21. Light duty extension cord (16 gad. or lighter with 10' or shorter)
22. Heavy duty extension cord (14 gad. or heavier with no length limit, 25' long cord or longer must use 12 gauge. or larger conductor)
23. Display of electric wires and cables (about 6" long with no limit on display board size)
24. Demonstration Board using three-way and four-way switches in a lighting circuit.
25. Homemade lamp or lighting unit
26. Scrapbook plans or photographs showing lighting improvements made at home.
27. Display or poster of 10 or more different electronic parts, labeled, with a description of how each part is used.
28. A circuit with a diode, explain what a diode does.
29. A circuit with a transistor, explain what a transistor does.
30. A circuit with a light emitting diode (LED), explain what a LED is.
31. A circuit with an LED flasher.
32. Photocell alarm.
33. Light meter
34. Silicon controlled rectifier (SCR) intruder alarm, explain how it works.
35. 6-8 watt amplifier with integrated circuit.
36. Two-transistor radio receiver
37. Tachometer
38. Photoelectric controller
39. Display of electrical control system
40. Poster illustrating resistors and how to tell what size they are by color code

41. Any other exhibit, attach a 3"x 5" card explaining what it is

### **CLASS B – ELECTRICITY SELF-DETERMINED - Project Code 191**

Self-determined project exhibits are records of projects not listed in the premium list or an expansion of a traditional project beyond limits of the project or in greater depth than the project outlines.

- Posters MUST be 14" x 22".
- Scrapbooks MUST be 8 ½"x 11" or 12" x 12".

<b>PREMIUMS</b>	<b><u>1st</u></b>	<b><u>2nd</u></b>	<b><u>3rd</u></b>	<b><u>4<sup>th</sup></u></b>
	2.50	2.25	2.00	1.75

Lot Numbers:

1. A poster promoting your self-determined project
2. An article made during the current year with a 3 x 5 inch card attached identifying resources. The article should be of reasonable size to exhibit in the Expo
3. building
4. A collection made during current year with a 3 x 5 inch card identifying work done
5. A scrapbook with story or essay, drawings, and photos of project work done during the current enrollment year.
6. Any other self-determined project not listed above.