

## ELECTRICITY DIVISION

### Electricity Rules and Regulations

1. In order to exhibit in the electricity division, the 4-H member must be enrolled in: **Electricity Unit I - *Magic of Electricity* Pub. BU-6848 OR Electricity Unit II - *Investigating Electricity* Pub. BU-6849 OR Electricity Unit III - *Wired for Power* Pub. BU-6850 Electricity Unit IV - *Entering Electronics* Pub. BU-6851**
2. All plugs MUST have an underwriters note tied by the exhibit.
3. The size of the wire MUST comply with the UL Codes relative to the type of work to be done.
4. EACH exhibit MUST have fastened to it a short description on 3" x 5" card to indicate what the project is and how to use it.
5. During judging, exhibitor should be prepared to discuss how the exhibit is to be used, the way it was assembled and disassemble a part to see how item works.
6. All projects **MUST** include a written report explaining how the project was constructed and principles for operation demonstrated or explained.

**Class 01 - Electricity I- Magic of Electricity** - Display a poster **OR** an extension cord **OR** an electrical circuit, with switch and bulbs to demonstrate conductors and insulators **OR** an electromagnet **OR** a galvanometer **OR** an electric motor.

\*\*Poster and extension cord exhibits are NOT eligible for State Fair Entry.

**Class 02 - Electricity II- Investigating Electricity** - Display a circuit board, demonstrating parallel and series circuit, including a diagram **OR** a momentary switch **OR** a 3-way switch using approved electrical materials **OR** a tested rocket launcher, **OR** a burglar alarm.

**Class 03 - Electricity III-Wired for Power** - Display a 120V lighting fixture or other appliance which uses a switch **OR** exhibit 2 electrical household circuits using 120V materials to comply with National Electrical Codes, one with a simple on/off switch to control bulb, and one using 3-way switch to control light from 2 locations **OR** a project which demonstrates principles in Unit III book.

**Class 04- Electricity IV- Electronics**- Exhibit any electronic or solid-state appliance, and a second written report explaining your project and what you learned. When project is being constructed, general safety and workmanship should be considered.