

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, Electricity Unit II, Electricity Unit III, Electricity Unit IV**
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 what was learned, how project was constructed and principles for its operation.**
7. County may submit any combination of one entry.

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

Class 02- Electricity II – Magic of Electricity – (Not Eligible for State Fair) Display a poster or electrical cord.

Class 03 - Electricity II- Investigating Electricity - Display a circuit board, demonstrating parallel and series circuit, including a circuit diagram **OR** a momentary switch **OR** a 3-way switch using approved electrical materials **OR** a tested rocket launcher, **OR** a burglar alarm.

Class 04 - 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 the *Wired for Power* book.

Class 05- Electricity IV- Electronics- Exhibit any electronic or solid state appliance. Exhibitor must be able to explain how the project was constructed, how it is to be used and how it works. When project is being constructed, general safety and workmanship should be considered.