

ELECTRICITY – It is strongly suggested that members use recommended construction details, including proper color coding, provided by the Energy Education Council (EEC) that have been provided on the EEC 4H website: <http://www.energyedcouncil.org/4h.html>.

See General Rule #16 regarding size restrictions.

* **Electricity I – Magic of Electricity** – (May only be battery-powered projects using battery components and wiring). Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits. Exhibit a momentary switch, simple switch, or basic circuit OR an Electromagnetic OR a Galvanometer OR an Electric motor. **All projects must include a report explaining how the project was constructed and the principles demonstrated.** Recommendations can be found on the website.

* **Electricity II – Investigating Electricity** – (May only be battery-powered projects using battery components and wiring). Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits. Exhibit a Circuit board demonstrating parallel and series switches, including a circuit diagram OR 3-way or 4-way switch circuit using DC/battery OR basic electrical device (examples: Rocket launcher, burglar alarm, etc.). **All projects must include a report explaining how the project was constructed and the principles demonstrated.** Recommendations can be found on the website.

* **Electricity III – Wired for Power** – Exhibit a 120V lighting fixture or other appliance which uses a switch; **OR** two electrical household circuits using 120V materials to comply with National Electrical Code, one with a simple on/off switch to control bulb, and one using 3-way switches to control light from two locations; **OR** other project which demonstrates principles in the book. **All electricity projects must include a report, explaining what was learned and how the project was constructed and principles for its operation.** Recommendations can be found on the website.

* **CLOVER CHALLENGE: Electricity** – Exhibit a display illustrating the Clover Challenge area explored. See General Rule #17 regarding Clover Challenge requirements. **The completed Illinois 4-H Clover Challenge Agreement must be presented with the exhibit.**

* **Entering 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.

* **CLOVER CHALLENGE: Electronics** – This class is limited to 15-18 year olds who are enrolled in Clover Challenge for this project area. Exhibit a display illustrating the Clover Challenge area explored. See General Rule #17 for Clover Challenge requirements. **The completed Illinois 4-H Clover Challenge Agreement must be presented with the exhibit.**