ELECTRIC

This is a State Fair project. 4-H'ers have to qualify at the county fair to exhibit at the State Fair. These requirements supersede your project manual.

NOTE: The Judges would appreciate an attached note with a description of what work the 4-H'er did to complete their exhibit including cost, hours, and intended use.

*Refer to the poster information page located in the handbook for poster requirements and suggestions.

All posters, notebooks, displays, and exhibits should include a reference list indicating where information was obtained, giving credit to the original source. This reference list may include website links, people that helped you, books, magazines, etc. It is recommended that this reference list be attached to the back of a poster or display, be the last page of the notebook, or included as part of the display or exhibit visible to the public. A judge is not to discredit an exhibit for how references are presented.

Level 1 (Grade 3): Magic of Electricity
Complete the activities as instructed in the manual.

Exhibit one article of choice displaying proper wiring techniques, made during the current 4-H program year. It must demonstrate a minimum of five (5) or more of the appropriate level of "Skills to be Attained" items as outlined in the "4-H Electric and Electronic Skills & Knowledge Chart". **A completed copy of the "Exhibit Skills & Knowledge Sheet" must accompany the project.**

Exhibit Suggestions:

- **Circuit board** – 6" by 6" of Series/Parallel Circuit
- **Electromagnet**
- **Galvanometer**
- **Poster board** (22" by 28")
- **Display** (appropriately sized for displayed equipment)
- **Notebook/Report** that covers any topic that is in the National 4-H Electric Curriculum *Electricity Excitement* Book 1 or *Investigating Electricity* Book 2, Purdue Extension website Level 1 activities/project sheets, or from the appropriate level of the Skills & Knowledge Chart.

State Fair Exhibit: There will be one State Fair entry from Division 1.

Level 2 (Grade 4): Investigating Electricity
Complete the activities as instructed in the manual.

Exhibit one article of choice displaying proper wiring techniques, made during the current 4-H program year. It must demonstrate a minimum of five (5) or more of the appropriate level of "Skills to be Attained" items as outlined in the "4-H Electric and Electronic Skills & Knowledge Chart". **A completed copy of the "Exhibit Skills & Knowledge Sheet" must accompany the project.**

Exhibit Suggestions:

- **Magnetic Powered Shake Flashlight** – with display
- **Circuit board** – 6" by 6" of Series/Parallel Circuit (with modifications if exhibited in Level 1)
- **Electromagnet**
- **Galvanometer**
- **Electric Motor**
- **Poster board** (22" by 28")
- **Display** (appropriately sized for displayed equipment)
- **Notebook/Report** that covers any topic that is in the National 4-H Electric Curriculum *Electricity Excitement* Book 1 or *Investigating Electricity* Book 2, Purdue Extension website Level 2 activities/project sheets, or from the appropriate level of the Skills & Knowledge Chart.

State Fair Exhibit: There will be one State Fair entry from Division 2.

Level 3 (Grade 5): Wired for Power

Complete the activities as instructed in the manual.

Exhibit one article of choice displaying proper wiring techniques, made during the current 4-H program year. It must demonstrate a minimum of five (5) or more of the appropriate level of "Skills to be Attained" items as outlined in the "4-H Electric and Electronic Skills & Knowledge Chart". **A completed copy of the "Exhibit Skills & Knowledge Sheet" must accompany the project.**

Exhibit Suggestions:

- **Wiring Project –** (ie. extension cord, trouble light, wire sizes and uses, plug configurations, test equipment, etc.)
- **Electrical tool and supply kit**
- **Poster board** (22" by 28")
- **Display** (appropriately sized for displayed equipment)
- **Notebook/Report** that covers any topic that is in the National 4-H Electric Curriculum *Wired for Power* Book 3, Purdue Extension website Level 3 activities/project sheets, or from the appropriate level of the Skills & Knowledge Chart.

State Fair Exhibit: There will be one State Fair entry from Division 3.

Level 4 (Grade 6): Entering Electronics

Complete the activities as instructed in the manual.

Exhibit one article of choice displaying proper wiring techniques, made during the current 4-H program year. It must demonstrate a minimum of five (5) or more of the appropriate level of "Skills to be Attained" items as outlined in the "4-H Electric and Electronic Skills & Knowledge Chart". **A completed copy of the "Exhibit Skills & Knowledge Sheet" must accompany the project.**

Exhibit Suggestions:

- **Wiring** – Wire a lamp. The lamp can be a re-wired lamp or one that is built new.
- **Electrical tool and supply kit**
- **Poster board** (22" by 28")
- **Display** (appropriately sized for displayed equipment)

- **Notebook/Report** that covers any topic that is in the National 4-H Electric Curriculum *Wired for Power* Book 3, Purdue Extension website Level 4 activities/project sheets, or from the appropriate level of the Skills & Knowledge Chart.

State Fair Exhibit: There will be one State Fair entry from Division 4.

Level 5 (Grades 7-12):

***Do either an Electric power or Electronics project**

Complete the activities as instructed in the manual. Each county may submit one advanced electric and one advance electronic exhibit to the state fair.

Exhibit one article of choice, displaying proper wiring techniques, made during the current 4-H program year that demonstrates a minimum of five (5) or more of the appropriate level of "Skills to be Attained" items as outlined in the "4-H Electric and Electronic Skills & Knowledge Chart". **A completed copy of the "Exhibit Skills & Knowledge Sheet" must accompany the project.**

Exhibit Suggestions:

- **Equipment Wiring** – including but not limited to: parts identification, appliance repair, lamps and other lighting, equipment wiring, control system, security system, topic that covers safety, motors/generators, electric heating, heat pumps, AC, water heaters, and other electric equipment.
- **Home Wiring** – included by not limited to any circuits found in the wiring of a house or "barn", service entrance, switching, receptacles, generator transfer circuit, safety, electrical math, and others.
- **Electronic Equipment** – Any project or kit containing transistors or integrated circuits or vacuum tubes such as radio, TV, computer, robot, cell phone, and others.
- **Poster board** (22" by 28")
- **Display** (appropriately sized for displayed equipment)
- **Notebook/Report** that covers any topic that is in the National 4-H Electric Curriculum *Entering Electronics,* Purdue Extension website Level 5 activities/project sheets, or from the appropriate level of the Skills & Knowledge Chart.
- **Video Presentation** Create a video showing the work accomplished and skills learned. This video should include the same type of information as required in written notebook listed above. This video is to be no more than ten minutes in length and formatted as MP4 and submitted on a thumb drive. This video can also be uploaded to a YouTube account with the video being made public and the link submitted for evaluation.

State Fair Exhibit: There will be one State Fair entry from Advanced Electric and one State Fair entry from Advanced Electronic.

ELECTRIC – Check-in and judging

Check-in: **Tuesday, June 8, 5-7 p.m. OR Wednesday, June 9, 8 a.m.-4 p.m.** (bring project, skills sheet, and record sheet)
Judging: **Closed judging**

After check-in of **all** projects, put current year's record sheets in Green Record Book and turn in at designated boxes in the community building.

You have until May 15 to add or drop this project from your current year's enrollment.

The Best of Show and Runner-Up Best of Show winners will be recognized Friday of the fair.