ELECTRIC

PLEASE NOTE: Any changes/updates from the previous year will be BOLDED and ITALICIZED! Pay special attention to any projects with BOLD, ITALICIZED WORDS because they have changed from last year.

The 4-H electricity and electronic program provides youth with educational information about electricity and how it can be used to benefit the human race.

Completion, exhibition participation, and State Fair information for Electric			
Level	**Grades (suggested)**	**Completion Activities Needed***	**Maximum State Fair Entries**
Level 1	**1st year in Electric**	Complete 7 Book Activities*, Record Sheet, Exhibit Skills Check Sheet	1 Entry
Level 2	**2nd year in Electric**	Complete 7 Book Activities*, Record Sheet, Exhibit Skills Check Sheet	1 Entry
Level 3	**3rd year in Electric**	Complete 7 Book Activities*, Record Sheet, Exhibit Skills Check Sheet	1 Entry
Level 4	**4th year in Electric**	Complete 7 Book Activities*, Record Sheet, Exhibit Skills Check Sheet	1 Entry
Level 5	**5th year or more in Electric**	Complete 7 Book Activities*, Record Sheet, Exhibit Skills Check Sheet	1 Entry for Electric 1 Entry for Electronic

*"Activities" are defined as project manual activities and/or Hendricks County 4-H Workshops related to this topic. Members must be able to prove attendance by getting a signature from 4-H Leader/Project Advisor that conducts the workshop. Activity sheets available in the Extension Office with Electric Project Manuals. Fair Exhibit guidelines are listed below.

***Remember*: All** posters, notebooks, and display boards **MUST** include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the way references are listed. Reference Sheets are available at the Extension Office for use if needed. For personal safety, do not include personally identifiable information such as mailing address or phone numbers on posters/displays/exhibits.

GUIDELINES

1. Refer to the Hendricks County 4-H Policies, Entry & Exhibit Guidelines for poster and general display guidelines.
2. Youth are encouraged to complete the activities as instructed in the manual or found on the 4-H electric web page.
3. It is recommended a note be attached to your exhibit explaining what was done, the intended use, and the materials you used in completing the exhibit.

EXHIBIT CLASSES

SUGGESTION FOR ALL DIVISIONS: include an explanation card on how your exhibit is to be used.

Electric Level 1 (1st year in Electric)

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 Magic of Electricity 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.

Electric Level 2 (**2nd Year in Electric**)

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 ***optional*** 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 Magic of Electricity 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.

Electric Level 3 (**3rd Year in Electric**)

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 – (i.e. 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.

Electric Level 4 (**4th Year in Electric)**

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.

Electric Level 5 (5th year or more in Electric)

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.