4-H ELECTRIC

TERMS AND CONDITIONS

1. Refer to the appropriate 4-H Electric project manual for a more complete explanation of technical details needed to finish your project.
2. Whenever possible, electrical components which are UL (Underwriters' Laboratories) approved should be used in completing projects.

EXHIBITS

State Fair entries in all divisions

DIVISION 1: Grades 3 – 4 (Suggested Grades) Getting on Track with Electricity 4-H 421
Exhibit either a parallel or series circuit board – supplies are available to purchase at the Extension Office. BE SURE YOUR EXHIBIT IS LABELED AS EITHER A **SERIES OR PARALLEL CIRCUIT.** Read the Division 1 Electric Manual for instructions for making your circuit board.

DIVISION 2: Grades 5 – 6 (Suggested Grades) Scoring Electricity Through Magnetism 4-H 422
Complete worksheets and record sheet accompanying the Division 2 Electric Manual. Exhibit one of the following:

- **MAGNETIC POWERED FLASHLIGHT –** Make a magnetic powered flashlight. Kits are available to purchase at the Extension Office.
- **POSTER -** All poster exhibits are to be displayed horizontally, sized 22" x 28", mounted on a firm backing (foam core board or other), and covered in clear plastic or transparent material. Place standard identification label with your name, grade and county in the lower right-hand corner of the poster. The poster will be about a topic as outlined in the manual. Refer to 4-H Poster Guidelines.

DIVISION 3: Grades 7 – 8 (Suggested Grades) Alternating Your Thoughts about Electricity 4-H 423
Project Completion Recommendations

1. Make one of the following:
   a. Build an extension cord using all new parts
   b. Build an incandescent trouble light using all new parts
   c. Build a fluorescent trouble light using all new parts
   d. Repair an extension cord or trouble light by replacing the cord, plug, connector body or socket handle with a new part(s).
2. Create a poster about wire size, wire type, current carrying capacity, the parts of an extension cord or trouble light, an important safety-related topic, any topic covered in the Division III manual.
3. Complete your record. Note: For parameters on any of the above project options, see the Division III manual.

Exhibit one of the following:

- **EXTENSION CORD** – Supplies are available to purchase at the Extension Office.
- **TROUBLE LIGHT** – Kits are available to purchase at the Extension Office.
- **POSTER –** As outlined in the project manual. All poster exhibits are to be displayed horizontally, sized 22" x 28", mounted on a firm backing (foam core board or other), and covered in clear plastic or transparent material. Place standard identification label with your name, grade and county in the lower right-hand corner of the poster. Refer to 4-H Poster Guidelines.

DIVISION 4: Grades 9 – 10 (Suggested Grades) Lighting the Way 4-H 1000
Project Completion Recommendations

1. Complete the activities presented in the manual.
2. Make or remake a lamp, or make a poster or display board on any topic covered in the manual.
3. Complete your record.

Exhibit one of the following:

- **MADE OR REMADE LAMP** – Supplies are available to purchase at the Extension Office.
- **POSTER OR DISPLAY BOARD** - All posters and display boards are to be displayed horizontally, sized 22" x 28", mounted on a firm backing (foam core board or other), and covered in clear plastic or transparent material. Refer to 4-H Poster Guidelines.

ADVANCED (DIVISIONS 5 – 10) - Electricity & Electronics (This book is being updated and you may find other resources at your local library, electricians, instructors, internet, etc. to provide guidance for your project.)

The Advanced Division is split into two different categories. One area is "Advanced Electric 5– 10" and the second is "Advanced Electronics 5-10." You may choose one category for your Advanced 5– 10 exhibit.

Exhibit ONE of the following:

1. An article made in the area of heating and cooling
2. An article made in the area of lighting
3. An article made in the area of electronics (advanced division electronic projects may contain and use molded plugs if they are part of the electronic kit)
4. An article made in the area of power
5. A written report on: consumer buying, better electrical methods, or electrical careers.
6. A written notebook report with photos of individual steps (close-up) and overall work, illustrations, explanation of each step performed, explanation of overall work done, reasons for performing work, reasons for selecting materials used, list of materials used and prices (budget), schematics, etc. of electric project. This option allows you to use your imagination and complete any electrical project that you cannot physically bring to the fair to exhibit. You could wire a room in a house, the barn, outdoor lighting, indoor lighting, control systems, alarm systems, etc.
7. Display board (no larger than 36"x36"x36") showing home wiring (3-way switch, 4-way switch, GFCI Grounding, Circuit Protection, etc.) or any topic covered in the Advanced Division manual.

Attach to the exhibit any kit instructions or book/manuals if you feel they will help explain the operation of the exhibit. This may be important for advanced electronic projects.

Note: Poster and display boards should be 22" tall by 28" wide. Equipment wiring boards differ from display boards in that they show hands-on wiring techniques (i.e., complete wiring of a light controlled by a three-way switch system). Equipment wiring boards should be no larger than 3' by 3'. The boards should be designed so that they can be displayed horizontally. Refer to 4-H Poster Guidelines.