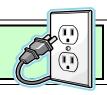
# **DEPARTMENT 23** JUNIOR ELECTRICITY



Superintendent - Dustin Heitkamp

#### Premiums:

1st \$2.00 2nd \$1.75 3rd 1.50 4th \$1.25

CLASS A - Unit I- MAGIC OF ELECTRICITY - Limited only to exhibitors enrolled in Electricity I or comparable project.

#### Item No.

- Homemade flashlight 1.
- 2. Simple switch
- Circuit with two batteries and one light bulb 3.
- 4. Compass
- Electromagnet 5.
- Galvanometer 6.
- 7. Electric motor
- Electric question board 8.
- Steady hand tester 9.
- 10. Scrapbook of experiments
- 11. Any other, attach a 3"x5" card of explanation

#### Premiums:

1st \$2.00 2nd \$1.75 3rd \$1.50 4th \$1.25

CLASS B - Unit 2-INVESTIGATING ELECTRICITY - Limited only to exhibitors enrolled in Electricity II or comparable project.

### Item No. 1.

- Circuit diagrams with explanation
- 2. Series circuit
- Parallel circuit 3.
- 4. Momentary switch
- 5. Three-way switch
- Soldered connection
- Rocket launcher 7.
- Burglar alarm
- A simple homemade buzzer 9.
- 10. Scrapbook of experiments
- 11. Any other, attach a 3"x5" card of explanation

### Premiums:

1st \$2.50 2nd \$2.25 3rd \$2.00 4th \$1.75

CLASS C - Unit 3-WIRED FOR POWER - Limited only to exhibitors enrolled in Electricity III or comparable project.

## Item No.

- Electrical tool and supply kit 1.
- Display of symbols on wires and cables and their meanings Display of light bulbs and the jobs they do best 2.
- 3.
- Poster on how to ready an appliance nametag 4.
- Chart showing the electrical usage of appliances
- Poster on how to replace a switch 6.
- Old lamp that has been rewired, attach a 3"x5" card explaining how it was done.
- A chart of the rooms in your house recording the results of your tests for grounded & ungrounded receptacles
- Display of electric wires commonly used in home or farm wiring. Explain how each is used.
- 10. Any other exhibit, attach a 3"x5" card of explanation

#### Premiums:

1st \$2.50 2nd \$2.25 3rd \$2.00 4th \$1.50

CLASS D - Unit 4-ENTERING ELECTRONICS - Open to members enrolled in Electricity, Unit IV or comparable project.

## Item No.

- Display of electronic parts (labeled) 1.
- A circuit with a diode, explain what a diode does 2.
- A circuit with a transistor, explain what a transistor does
- A circuit with a light emitting diode (LED) explain what a LED is
- A circuit with LED flasher

- Photocell alarm
- Light meter 7.
- Silicon controlled rectifier (SCR) intruder alarm, explain how 8. it works
- 9. 6-8 watt amplifier with integrated circuit
- Scrapbook record of electrical improvements around your 10. home and/or farm
- 11. Any other exhibit, attach a 3"x5" card explaining what it is