

## **DEPARTMENT 123 – ELECTRICITY**

Please see the judging schedule for dates and times if you would like to do face to face judging.

All posters and charts are 14" x 22" or 28" x 22"

### **CLASS A – Magic of Electricity (Open to members in grades 4-5)**

Group "A"	Group "B"	Group "C"	Group "D"
\$1.75	\$1.50	\$1.25	\$1.00

1. Make a simple flashlight
2. Build a simple compass
3. Build an electromagnet
4. Display of different gauges of wire and how they are used
5. Poster illustrating magnetic attraction tests
6. Chart showing everything in your house that used electricity

### **CLASS B – Investigating Electricity (Open to members in grades 6-7)**

Group "A"	Group "B"	Group "C"	Group "D"
\$2.00	\$1.75	\$1.50	\$1.25

7. Circuit diagram display with explanations
8. Make a series circuit
9. Make a parallel circuit
10. Make a soldered connection
11. Make a burglar alarm
12. Make a rocket launcher
13. Construct a three-way switch

### **CLASS C – Wired for Power (Open to members in grades 8-9)**

Group "A"	Group "B"	Group "C"	Group "D"
\$2.25	\$2.00	\$1.75	\$1.50

14. An electrical tool and supply kit
15. Display of symbols on wires/cables and their meanings
16. Poster on how to read an appliance nametag
17. Charter showing the electrical usage of appliances
18. Display on replacing a switch
19. Display of light bulbs and the jobs they do best

### **CLASS D – Entering Electronics (Open to members in grades 10 and up)**

Group "A"	Group "B"	Group "C"	Group "D"
\$2.50	\$2.25	\$2.00	\$1.50

20. Display of different electronic parts
21. Construct and explain a diode
22. Build a circuit using a transistor
23. Make a blinking LED flasher
24. Make a SCR intruder alarm

25. An AM or AM/FM radio built by exhibitor (without housing)
26. A robotics exhibit
27. An electronic item designed and built by the exhibitor