



4-H Electric – Level 3 Record Sheet

Completed (40 possible) _____
Accuracy of answers (30 possible) _____
Appropriate grammar (15 possible) _____
Neatness of record (15 possible) _____
Total _____

A = 86-100 points
B = 71-85 points
C = 70 points or less

Record for Year _____

A completed record sheet is due by the last business day of May to exhibit each project at the fair.
Use any 4-H publications, the internet, the library, or a professional to help you prepare your responses.

The Basics

Name _____ 4-H Club _____

Years in 4-H _____ Grade _____

Getting Started

There are several acronyms in the world of electricity. What do the acronyms listed below stand for?

- AC = _____
- DC = _____
- V = _____
- A = _____

Define resistance as it relates to electricity. _____

Most electrical cords have three kinds of wires. In what color would you most often find the following wires?

- "Hot" wire: ☐ Red ☐ Orange ☐ Yellow ☐ Green ☐ Blue ☐ Black ☐ White
- "Neutral" wire: ☐ Red ☐ Orange ☐ Yellow ☐ Green ☐ Blue ☐ Black ☐ White
- "Ground" wire: ☐ Red ☐ Orange ☐ Yellow ☐ Green ☐ Blue ☐ Black ☐ White

Draw a line from the wire to the correct location of that wire in a typical household outlet.



Hot Wire

Neutral Wire

Ground Wire

Making Connections

How many volts are available at a typical household outlet? _____

How many volts are available at a typical outlet for a laundry dryer? _____

If you were to dissect an electrical cord, you would find an outer rubber coating. What is its purpose? _____

If you get a kite tangled in a power line, what should you do? _____

Why should electrical appliances be grounded? _____

Lighting It Up

We do not necessarily care what you spent constructing your exhibit, but it is good for you to understand that things have a cost. Even poster boards are not free. Approximately how much did you spend constructing your exhibit or think you'll spend once it is complete? Circle one.

\$0.00-\$5.00 \$5.00-\$15.00 \$15.00-\$30.00 \$30.00-\$50.00 Greater than \$50.00

What did you enjoy the most about your project this year? _____

What was the most challenging thing you encountered with this year's exhibit? _____

Shining On

Name 3 basic tools you may carry in an electrical repair kit and briefly describe their purpose.

1. _____
2. _____
3. _____

Businesses hire electricians, and this is how some people "make a living" and take care of themselves or their families. Name two places or institutions in you could study electricity and become a certified electrician.

1. _____
2. _____

What is one thing you learned or sparked your interest as a result of completing this project? _____

In what way does this project apply to your life, or why is this subject matter important to you? _____