



4-H Electric – Level 4 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

Define lumen. _____

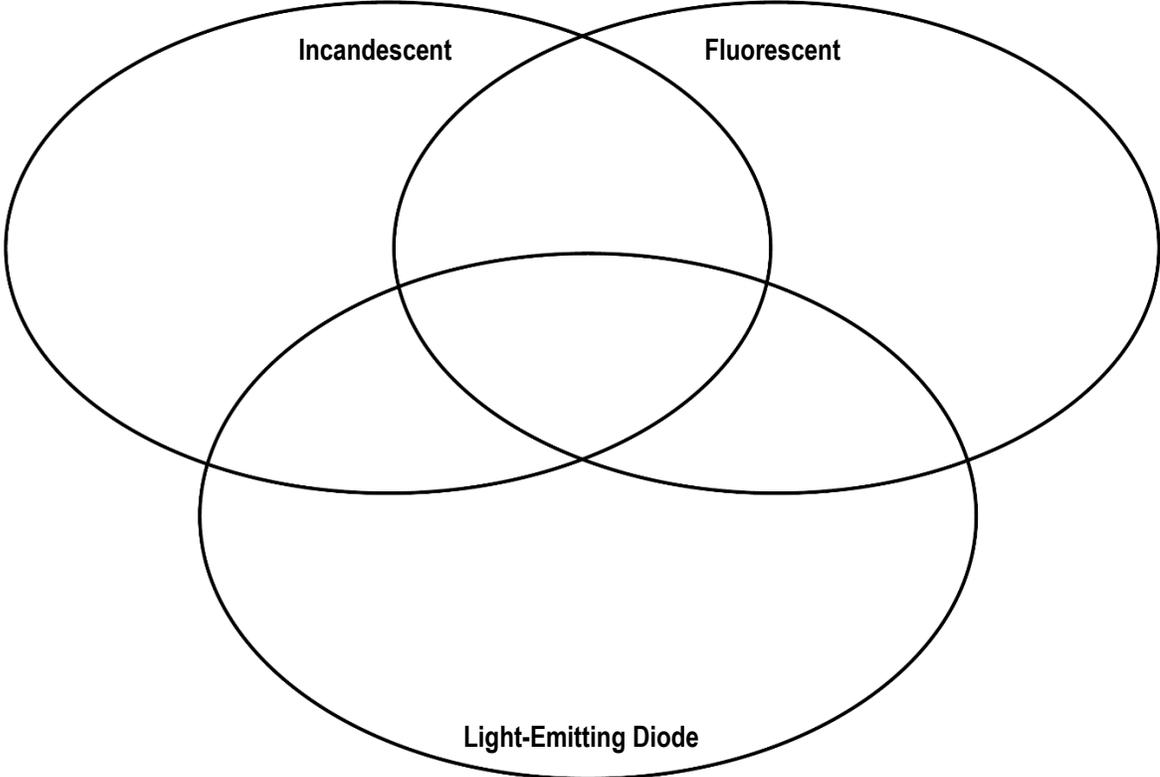
Explain the difference between a direct glare and a reflected glare. _____

What is an example of task lighting? _____

What is an example of general lighting? _____

Making Connections

Compare and contrast the three types of light bulbs, considering cost, temperature, safety, availability, life, etc.



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

Think about how kilowatt-hours are calculated as it relates to an electrical bill. If you light your living room for an evening (5 hours) with a lamp and one overhead light, how much would you spend? The overhead light has a 75-watt-equivalent LED bulb that uses 13 watts, and the lamp has a 60-watt-equivalent bulb that uses 8 watts. The current cost per kilowatt-hour is \$0.10. Use the formula below to find your answer.

$\text{kWh} = \frac{\text{watts} \times \text{hours}}{1000}$ <p>Current cost of electricity = \$0.10/kWh</p>
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Businesses hire electricians, and this is how some people "make a living" and take care of themselves or their families. Name three places or institutions in you could study electricity and become a certified electrician.

1. _____
2. _____
3. _____

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? _____

