



Exhibit Goal Sheet

Use this sheet to accompany your fair exhibit on judging day. After fair include this sheet with your project record keeping for project completion recognition. This sheet is also available from the website at: http://www.extension.iastate.edu/hancock/hancockcounty_districtfair

Project Area: Electric

Class: 10614

Grade Just Finished:

Name: Example

Club:

Current Year: 2019

Years enrolled in project including this year:

My goal: What did you plan to learn or do?

I wanted to learn how to complete an electrical circuit.

What I did in achieving my goal (in steps): What steps did you take to learn or do this? What decisions did you make in accomplishing your goal?

Group mock wiring

1. I learned about how to become an electrician and why there are so many rules in the codebook.
2. We installed a light switch box, an outlet box, and a light socket box on a mock wall.
3. We cut the insulation wire with the box knife so we would be able to get to the hot, neutral, and ground wires.
4. We stripped the ends of the hot and neutral wires so we would be able to hook them to the outlet, switch, and light. I had to be careful not to take off too much wire so there wasn't exposed wire in the box that might cause a short.
5. We bent a hook shape in the wires and connected them to the screws being sure to hook them so they would tighten down with the screw instead of pop off when the screw was tightened.
6. After everyone in the group got their jobs done our instructor reviewed our wiring and then we plugged in an electrical source and tried our wiring. Tada! It worked.

Lamp assembly

1. I screwed wood into the bottom of the precut PVC box so my lamp would have weight and wouldn't tip over. We had to run the screws back out and clean up the plastic filings that were made from the head of the screw.
2. Using a guide template that was made for us, I screwed the bottom on the lamp base.
3. I pushed the cord of my lamp up through the bottom of my lamp base and made a loose knot that would stop the cord from pulling through.
4. I put the lampshade holder and base of the light socket through the PVC box cap and screwed them on.
5. We glued on the PVC box cap onto the box.

6. I wired the hot wire and neutral wire to the light socket inside my lamp, put in a light bulb and plugged it in to make sure it would work. The socket needed to be pushed all the way back into the brass holder to make sure there was enough room for the light.
7. I picked out a lamp shade and placed it over my light bulb.

What I learned: What were the most important things you learned?

- Colored wires should always be the hot wire, white wire is neutral, and copper is ground.
- Power must always be off when working on electricity.
- Always hook the wire so it will tighten with the screw, not pop off when the screw gets tightened.
- Light switches will say “no” if they are put in upside down instead of saying “on”.
- If the light isn’t working, there is something not making a full connection. Remove the power source and follow the lines carefully to see where something is loose.