

Troop 67's Home Improvement Prerequisites

All Scouts must bring a Blue Card for each Merit Badge and the Prerequisites listed below.

Metalwork Merit Badge:

1. 2 large cans
2. pliers
3. tin snips

Painting Merit Badge:

1. 1 - 2" to 4" bristle brush
2. 1 - 9" roller frame with 9" roller cover
3. 1 - 9" roller pan
4. 1 - paint scraper
5. wear old clothes
6. bring enthusiasm and willingness to work

Electronics Merit Badge:

Bring the following with you and be prepared to discuss with the counselor.

Req 2 - A) Draw a simple schematic diagram. It must show resistors, capacitors, and transistors or integrated circuits. Use the correct symbols. Label all parts.

B) Tell the purpose of each part.

Req 4 - A) Tell how you can use electronics for a control purpose.

B) Tell about the basic principles of digital techniques.

C) Tell about three audio applications of electronics.

Req 5 - A) Show how to solve a simple problem involving current, voltage, and resistance using Ohm's law.

B) Tell about the need for and the use of test equipment in electronics. Name three types of test equipment. Tell how they operate.

Req 6 - Find out about three career opportunities in electronics that interest you. Discuss with and explain to your counselor what training and education are needed for each position.

Law Merit Badge:

The Scout must have the Law Merit Badge book with them.

1. Complete requirement 4 before the campout
2. To prepare for the Mock Trial, all Scouts must attend a session on Friday night from 7:30 to 9:00pm
3. Mock Trial will be Saturday night from 7:00 to 9:00pm

Scouts must attend and participate in the mock trial to earn the merit badge

Plumbing Merit Badge:

Pen or Pencil

Home Repairs:

None

Troop 67's Home Improvement Prerequisites

Landscape Architecture:

Bring a tape measure.

Requirement 2a or 2b.

Wood Working Merit Badge:

Requirement 2a and 2b.

Make a working drawing of a carpentry project. List all the material needed.

Bring a hammer.

Drafting Merit Badge:

Bring a sharpened pencil or mechanical pencil.

Bring an eraser.

Bring a 12 inch ruler.

Do 2 of the following:

1. Make a wiring diagram of a room (show light to light)
2. Make a drawing of an object with dimensions.
3. Make an architectural drawing of a room.

Surveying Merit Badge:

Bring a compass if you have one.

Troop 67's Home Improvement Prerequisites

2007 Home Improvement Camporee – Preparation “homework” for Electricity Merit Badge.

Note: you can find most of this information on the internet but it is strongly suggested that you obtain (and read) an official electricity merit badge pamphlet/book – the requirements were last updated in 2005.


- 1) Go through your house verifying its “electrical safety”. Look for some of the following things and note what you found:


Broken light bulbs	<input type="radio"/>
Loose, broken or uncovered outlet plates	<input type="radio"/>
Frayed wires or loose cord ends	<input type="radio"/>
Dripping or puddled water next to electrical wiring	<input type="radio"/>
Electrical cords under carpets or across walkways	<input type="radio"/>
Electric cables coming out of the load center (circuit breaker box) without proper strain relief (clamps to keep the cables from moving and wearing against the metal holes)	<input type="radio"/>
Unlabeled circuit breakers	<input type="radio"/>
External wiring that is not properly enclosed in water tight conduit and outdoor outlets that are not properly covered with water resistant covers.	<input type="radio"/>
Overloaded outlets	<input type="radio"/>
Electronic items with no surge protection	<input type="radio"/>
Loose chandeliers or chandeliers with no safety cables	<input type="radio"/>
Other	<input type="radio"/>
Other	<input type="radio"/>
Other	<input type="radio"/>

Troop 67's Home Improvement Prerequisites

2) make a diagram of your bedroom in your home, showing the lights, outlets, switches and any appliances – With your parents help identify which circuit breaker or fuse controls which outlet or light. Also note whether a circuit has Ground-Fault-Circuit-Interrupter detection (hint: GFCI breakers or outlets have “test” switches).


Use the following symbols to denote each:


Fluorescent Light Fixture 


Incandescent Light Fixture 

Single Position Switch S_1

Three Position Switch S_2

110Vac outlet 

220Vac outlet 

Breaker Number (on outlet) 

GFCI (on outlet) 

Troop 67's Home Improvement Prerequisites

3) Explain the meaning of the following 4 electrical terms and match them to their unit of measurement:

1) Resistance: Amperage

2) Electrical Potential: Ohm

3) Electrical Flow: Voltage

4) Electrical Power: Wattage

4) Explain the meaning of 6 of the following 12 electrical terms

Electrical Conductor

Direct Current

Alternating Current

Circuit Ground

Short Circuit

Open Circuit

Rheostat

Rectifier

Transformer

Capacitor

Inductor

Inverter