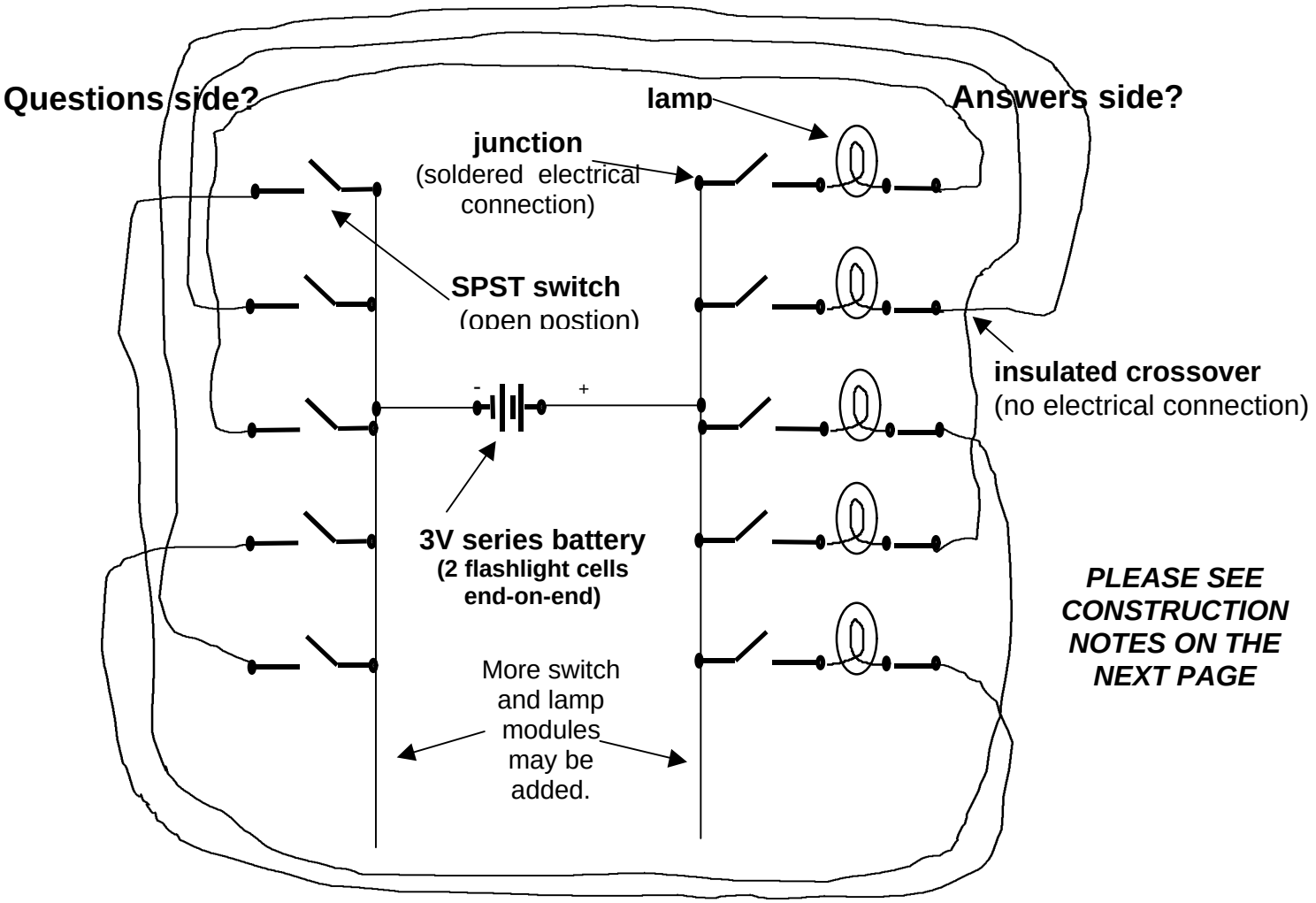
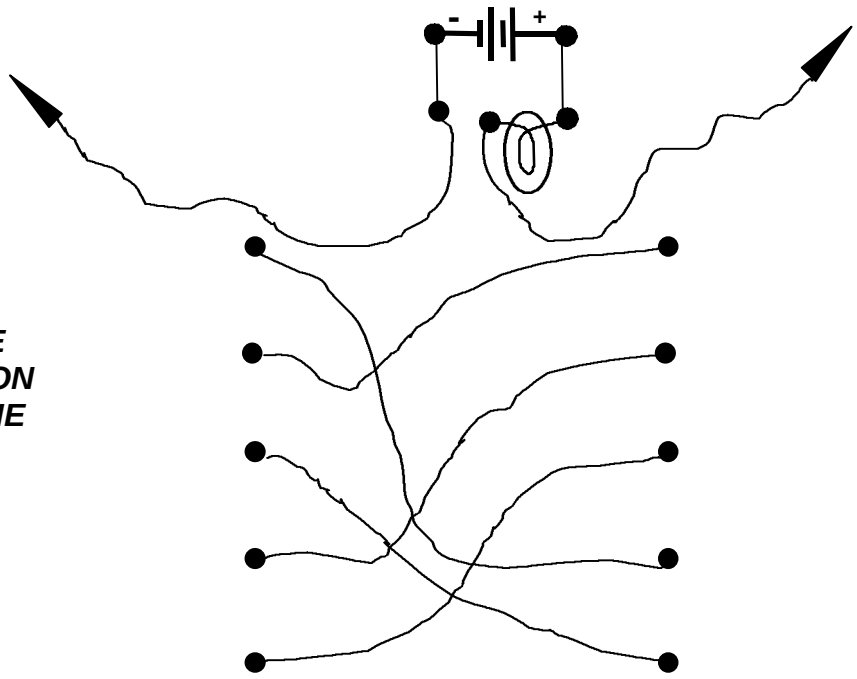
Electric Quiz Board
Using Switches



PLEASE SEE CONSTRUCTION NOTES ON THE NEXT PAGE

Electric Quiz Board
Using Probes



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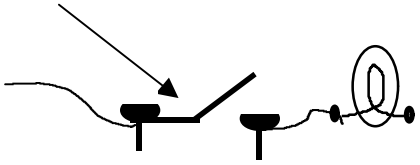
Abbreviations: **V = volt**
SPST = single pole, single throw
cm = centimeter

NOTE 1: The connection sequence for "question" switches and "answer" switches may be changed to suit your needs.

NOTE 2: A SPST switch can be made from pop can metal and tacks by cutting a strip about a centimeter wide and 3 cm long. Bend the strip into a wide V shape,



then tack (or nail) one end to the board. (Tacks, nails, metal strip and wire ends must be bare metal… no painted or plastic coating.)

Wire ends (bare metal) may be wrapped around the tack or nail before installation to make connections easier when assembling the rest of the project.

NOTE 3: The power source may be anything from a single 1.5 V cell to 12 cells in series (end-to-end which provides 18 V. *CAUTION !! THE LIGHT BULB MUST BE MATCHED TO THE VOLTAGE!*

Flashlight bulbs work well for this project and are available at most discount stores. They are usually rated as to the number of cells in the flashlight. A bulb for a one-cell flashlight will handle 1.5V, a two-cell bulb is good for 3V, etc.

The "batteries" that we put in our cylindrical flashlights are ***not*** batteries. They are ***cells*** until they are in contact with each other inside the flashlight. Only at that point, do they become a battery. Manufacturers intentionally mislabel their flashlight cells as batteries because most people don't know the difference and the term "cell" confuses them.

A large variety of 12V (automotive) bulbs and sockets are also readily available at discount stores. Compact 3V, 4.5V, 6V & 12V battery cases (to hold 4 cells or 8 cells) are available through Radio Shack and other electronic supply companies.

Homemade series battery cases can be made by rolling up paper or tagboard to make a tube of the correct size to hold the desired number of cells stacked end-on-end. More durable series battery cases can be made from plastic pipe.