



ELECTRIC CIRCUITS

1. USING: One battery, one switch, one bulb.
MAKE: The bulb light when the switch is closed.
2. USING: One battery, one switch, two bulbs.
MAKE: Both bulbs light when the switch is closed.
3. USING: One battery, two switches, one bulb.
MAKE: The bulb light when either switch is closed.
4. USING: One battery, two switches, one bulb.
MAKE: The bulb light only when both switches are closed.
5. USING: One battery, two switches, two bulbs.
MAKE: Both bulbs light when either switch is closed.

TWO GOLDEN RULES:

1. NEVER HAVE MORE THAN ONE WIRE CONNECTED TO A BATTERY TERMINAL.
2. NEVER HAVE MORE THAN ONE BATTERY TERMINAL CONNECTED TO A SWITCH – IF ONE BATTERY TERMINAL IS CONNECTED TO A SWITCH, THE OTHER BATTERY TERMINAL MUST BE CONNECTED TO SOMETHING OTHER THAN A SWITCH.

Electric Circuits – Materials Required

<u>ITEM</u>	<u>SUPPLIER</u>
Circular Bulb Holder (3 pieces) Item #: IN16320 http://www.hand2mind.com/item/circular-bulb-holder-set-of-10/4959#sthash.3oM8PIWC.dpuf	Hand2Mind
Knife Switch, Single Pole Double Throw (3 pieces) Item #: IN16341 http://www.hand2mind.com/store/electrical-supplies/1528#relatedproduct4429	Hand2Mind
6 Volt Lantern Battery (Super - Carbon Zinc) (1 piece) Item #: UPG-D5653-ABX-19802 http://www.apexbattery.com/6-volt-lantern-battery-super-heavy-duty--carbon-zinc-alkaline-nimh-nicad-batteries-lantern-batteries.html	Apex Battery
Alligator Clip Test Lead Set 10 Pcs. (6 pieces) Item #: 360-150 http://www.parts-express.com/alligator-clip-test-lead-set-10-pcs--360-150	Parts-Express
6.3V/250mA Incandescent Flashlight Bulb (3 pieces) Item #: 2721130 http://www.radioshack.com/6-3v-250ma-incandescent-flashlight-bulb-2-pack/2721130.html#q=Flashlight+bulbs&start=7	Radio Shack
Wood baseboard (12" x 12")	Home Depot

SOLUTIONS





