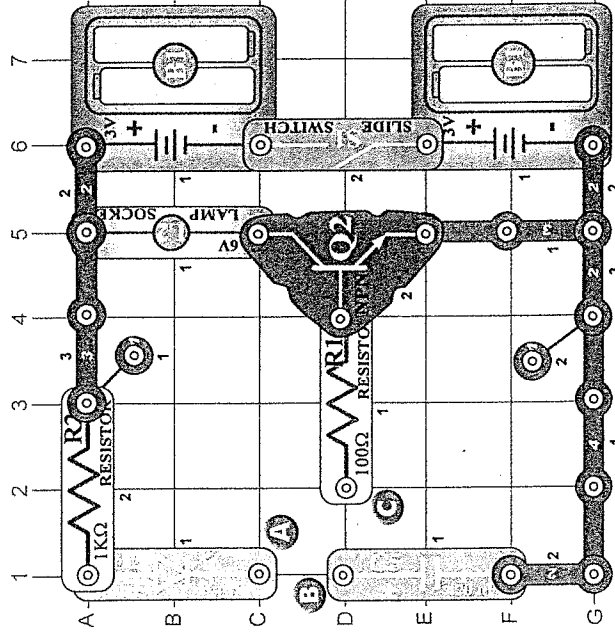


Project #252

Storing Electricity

OBJECTIVE: To store electricity in a capacitor.



Turn the slide switch (S1) on and connect points A & B with a 2-snap wire. The green LED (D2) will flash and the 470µF capacitor (C5) will be charged with electricity. The electricity is now stored in the capacitor. Disconnect points A & B. Connect points B & C and there will be a flash from the 6V lamp (L2).

The capacitor discharges through the resistor to the base of the NPN transistor (Q2). The positive current turns on the transistor like a switch, connecting the lamp to the negative (-) side of the batteries. The light will go out after the capacitor discharges, because there is no more current at the base of the transistor.

Draw the circuit diagram below using the symbols on the parts

Describe how the circuit behaves and how adding the capacitor to the circuit changes the behavior.