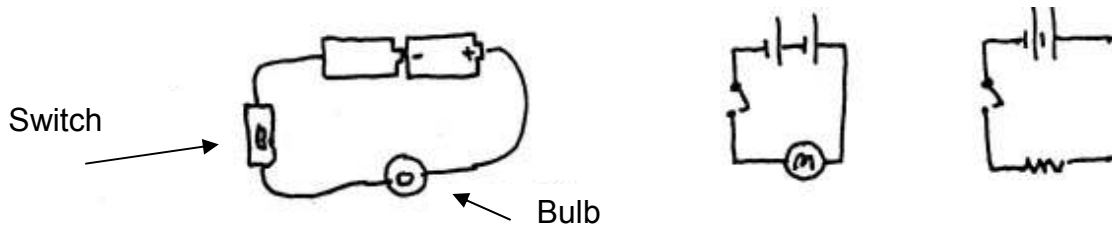
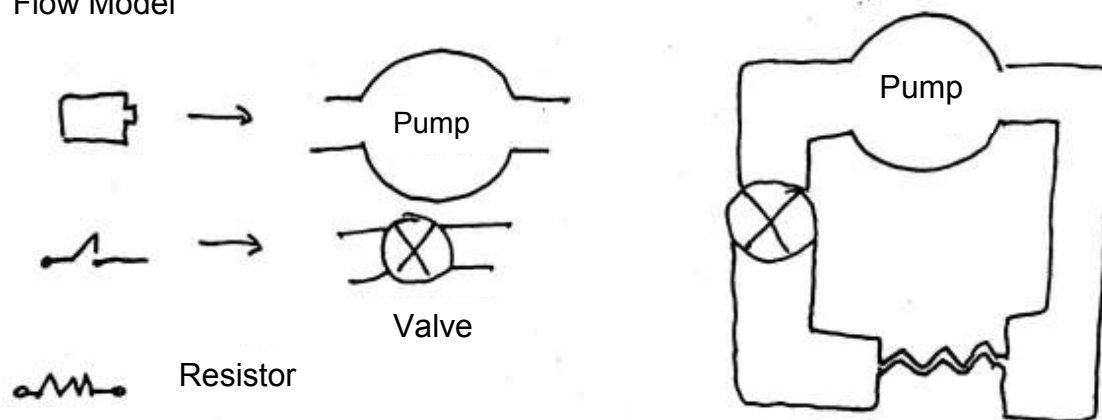


Electrical Circuit Elements Water Flow Analogy

Picture \longrightarrow Standard Circuit Diagram



Water Flow Model



A battery is like a pump. It does not make electrical charge, just as a pump does not make water, but both push the quantities through their circuits.

A switch is similar to a valve in controlling the flow of electrical current or water.

A resistor is like a constriction within a pipe. A long, skinny pipe restricts the flow of water as a long, skinny wire restricts (resists) the flow of electrical current.

Circuit diagrams represent perfect components. On paper, the batteries are all fully charged and the wires are perfect conductors (i.e., the components in the diagrams are perfect). In reality, components do not act exactly as they do on paper.