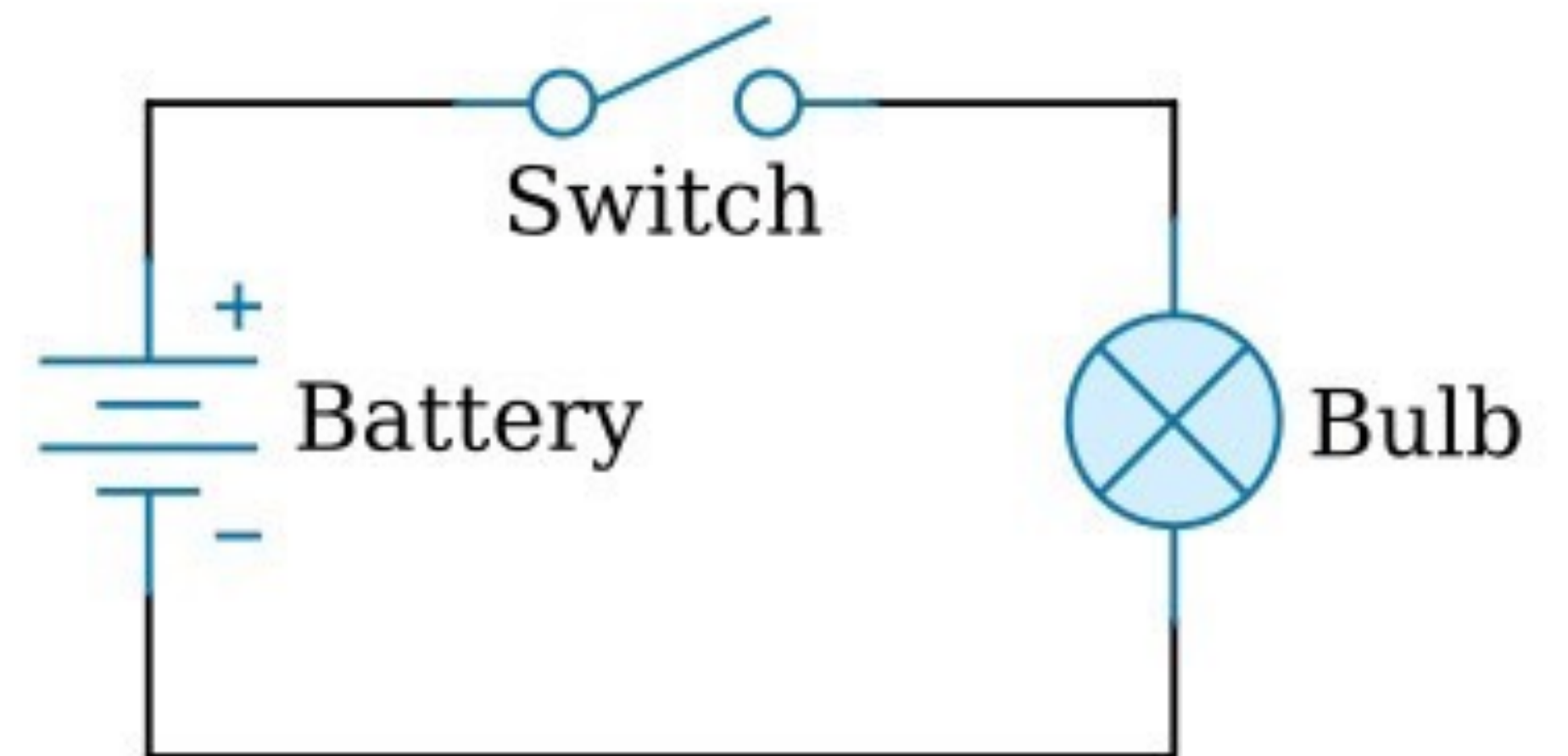
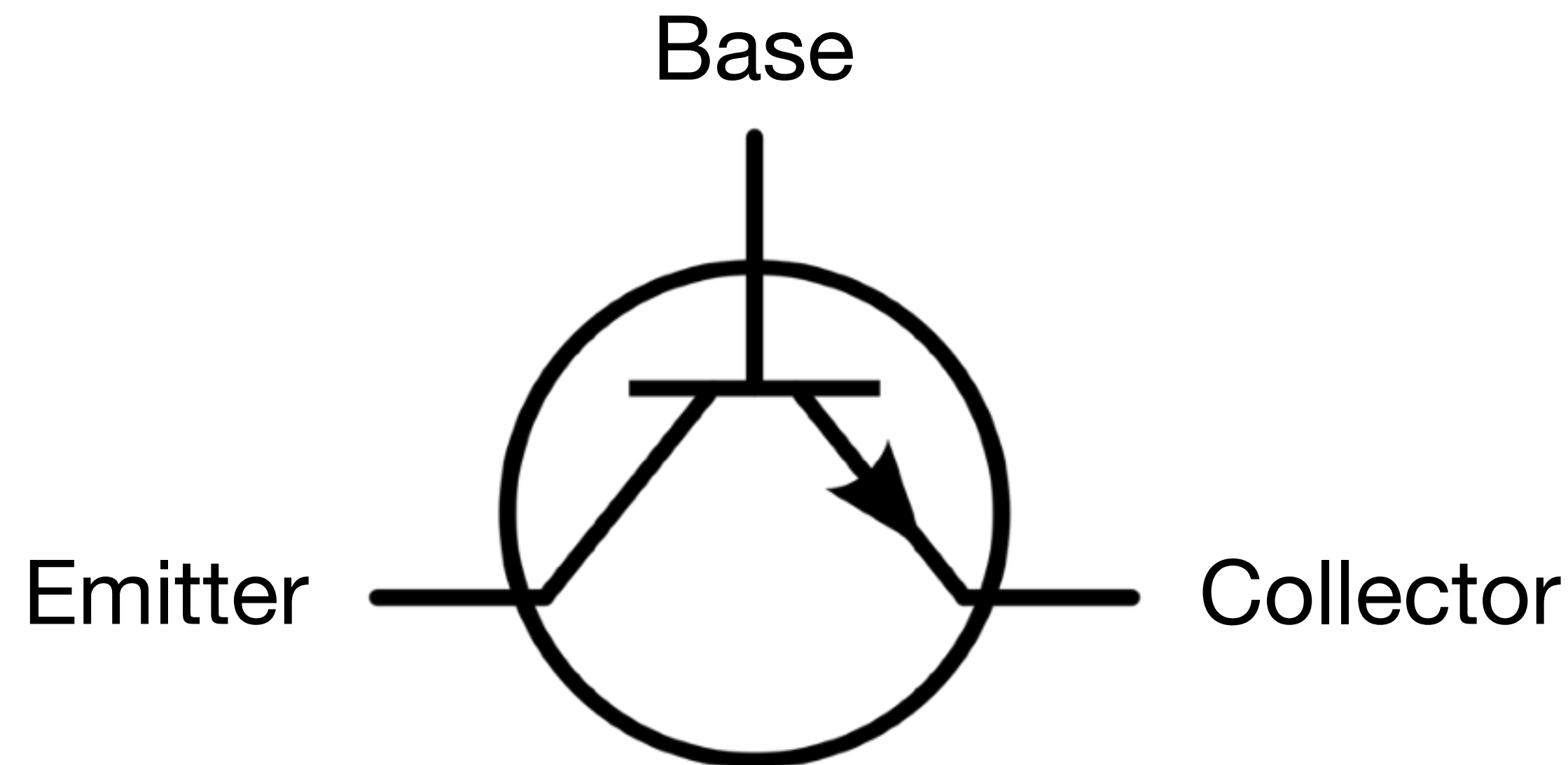


Transistors as switches

- When voltage is applied to one side of the transistor (the "emitter"), nothing will happen to the other side (the "collector") until voltage is also applied to the middle wire (the "base")



Creating NAND gates with transistors

Remember, NAND is all you need

- When both A and B have high voltage, a short circuit is created that goes directly from the voltage source to ground
 - This prevents high voltage from flowing to the output, so the output is "false" or 0
- Otherwise, no voltage can flow to ground
 - In this case, voltage to the output is high, so the output is "true" or 1

