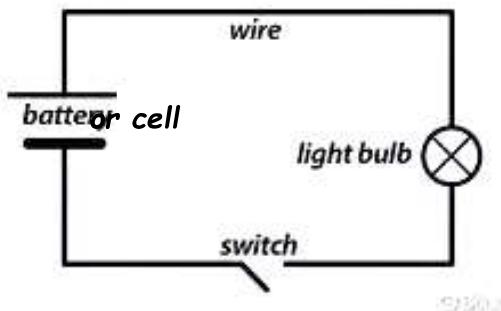


Date: _____

Chapter 8, lesson A: Simple circuits (8.A)

1. The components of a simple electrical circuit are:



Each component can be represented by a symbol.

Each component has a function in the electrical circuit.

Fill in the blanks.

—|— The battery/ cell is the **source** of the electric current (electricity) in the electrical circuit.

—|— The wires are responsible for **connecting** the electrical components that form an electrical circuit.

The electric current **flows through** the wires.

—|— The switch **controls the flow** of the electric current. It opens or closes a circuit.

—|— The lamp/ bulb is an electrical component that **indicates the presence of the electrical current** by lighting up.

2. Three students are having a discussion about switches.



Aki

A switch can close a circuit to allow electricity to flow.



Kim

When we turn the switch off, the circuit is closed. (turn the light off)



Ren

Switches are not useful because they break a circuit.

Only **one** student is correct.

Circle the name of the student who is **correct**.

Aki

Kim

Ren

3. Mary wants to make a circuit. She uses a lamp.

Which other parts should she use so that the lamp lights up?

Tick (✓) the **two** correct answers.

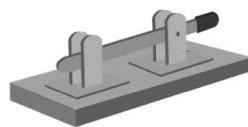
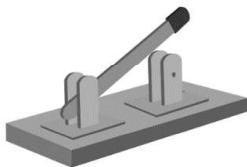
cell

wires

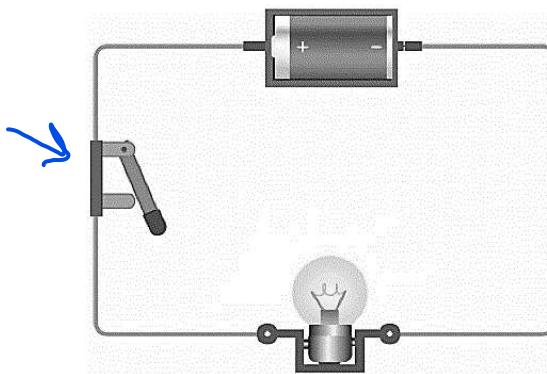
open switch

4. Which diagram shows a closed switch?

Tick (✓) the correct box.



5. Sanad makes a circuit.



(a) He notices that the lamp does not light up.

Explain why.

The lamp will not turn on, because the switch is open therefore, we have an open electric circuit which means the electric current will not flow through the circuit.

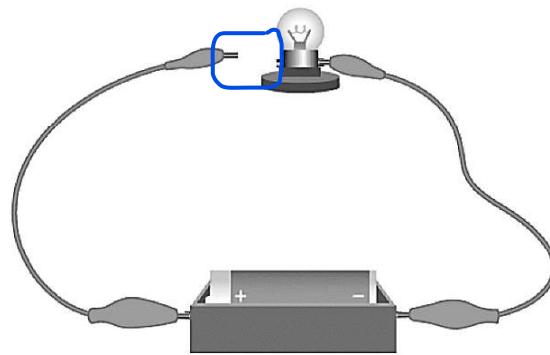
(b) What can Sanad do to make the bulb light up? Suggest **one** way.

Sanad has to close the switch to make it a closed electric circuit.

This lets the electrical current flow through the circuit, which lights the bulb up.

6. Looking at this circuit, Tia notices a break in the electric circuit.

(a) Circle where this break is.



(b) Explain how a break affects the electric current.

A break in the circuit will stop the electric current from flowing through the components, as it becomes an open circuit therefore the light bulb will not turn on.

Remember



The electric current is the electric energy that flows throughout the components in the electrical circuit.

The electric current flows out of the cell or battery and moves through the wires, the switch and the bulb then back through the wires to the battery.