

U.8.1 Introducing electricity and simple circuits

B. Conditions needed for electricity to flow

Electric circuit 電路

| path 路徑 for electricity to flow 流動

Closed circuit 閉合電路

- with **source of electrical energy 電源** is required for electricity to flow
 - 需要有电源的闭路才能流动
- conditions (Both)
 - **electric cell(s)** in the circuit
 - a **complete path** from one end of the electric cell to the other

Opened circuit 斷路

| a **gap** 缺口 in the circuit

C. Electrical conductors and insulators

Electrical conductors

| Materials that allow electricity to flow through them.

Example

- metals

- copper
- non-metals (not as well as metals)
 - graphite 石墨

Electrical insulations

| Materials that don't allow electricity to flow through them.

Example

- non-metal
 - paper
 - plastic

Switch

| used to open or close a circuit

Open

| opened circuit

| 電流流動不了=處於關閉狀態

Close

| closed circuit

| 閉合電路=電流可以流動=處於運作狀態