



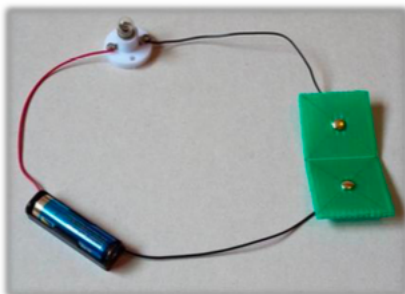
Year 4

# DT - Electrical Systems: Simple Circuits and Switches

## Key vocabulary

<i>circuit</i>	A path through which electricity passes
<i>conductor</i>	A material which allows electric current to pass through it
<i>insulator</i>	A material which does not easily allow electric current to pass through it
<i>prototype</i>	A model made to test whether a design will work
<i>push-to-break switch</i>	A switch turned off by pressing it
<i>push-to-make switch</i>	A switch turned on by pressing it
<i>reed switch</i>	A switch operated by a magnet
<i>toggle switch</i>	A switch operated when a lever is pressed
<i>system</i>	A set of related parts or components that achieve an outcome
<i>output devices</i>	Components that produce an outcome e.g. bulbs or buzzers
<i>input devices</i>	Components that are used to control an electrical circuit e.g. switches

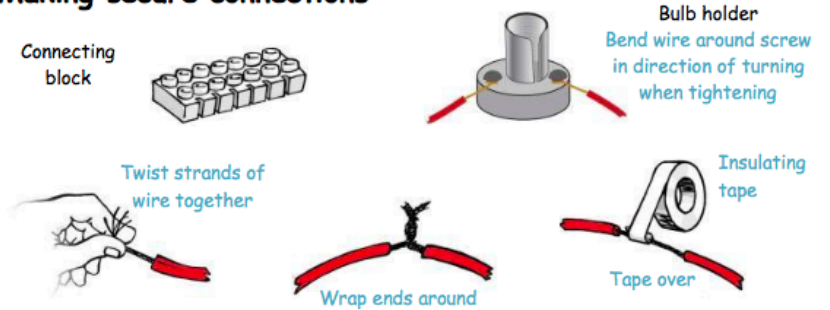
A simple electrical circuit with a handmade switch



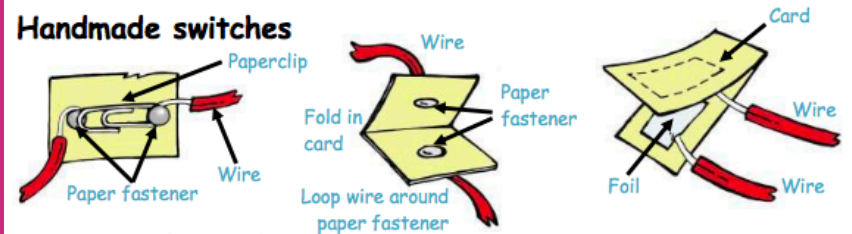
An example of a final product. A working torch has been made. The circuit has safely been stored inside the product outer

## Examples of switches

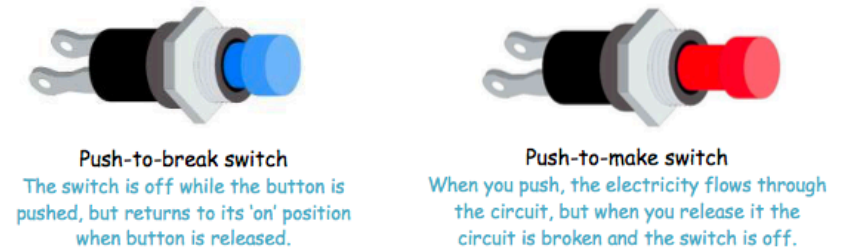
### Making secure connections



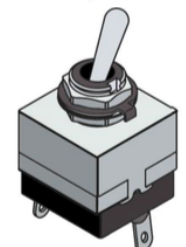
### Handmade switches



### Commercial switches



**Reed switch**  
Activated by a magnet - this closes the contacts and completes the circuit.



**Toggle switch**  
Simple on/off switch