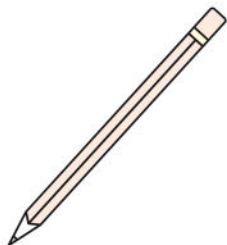


# Graphite Pencil Circuit

## You will need:

Minimum 6B graphite pencil  
Paper or card  
Small LED  
9V battery  
Tape



## Instructions

Use the graphite pencil to draw a design on a piece of card or paper.

Leave a gap in two places. One for the battery ends and one for the LED legs.

Attach the LED using tape to one gap in the circuit.



Place the battery over the second gap. The positive end of the battery needs to be in the same segment of circuit as the long leg ( positive end ) of the LED.

## How does it work?

Graphite is made up of carbon atoms with delocalised electrons which are able to move through the graphite. The electrons allow graphite to conduct electricity.

Graphite is an allotrope of carbon made up of layers of carbon atoms. The layers can slide over each other so it is soft and a perfect material for pencils! Another allotrope of carbon is diamond!



Adult supervision required. You are responsible for your own safety.  
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