

What does a diode do in a circuit?

Apparatus

For this experiment you will need the following apparatus: -

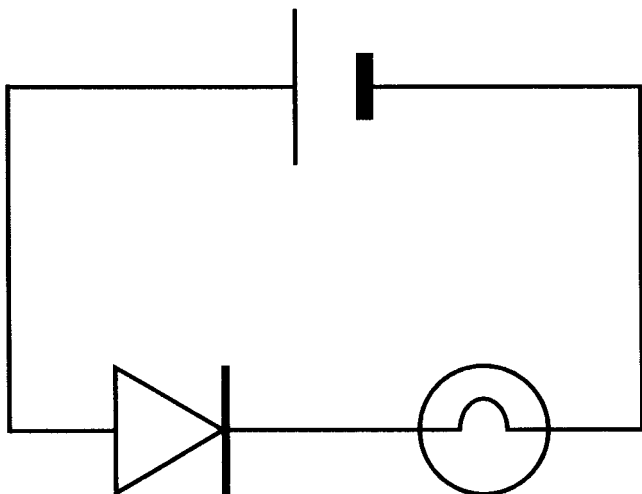
1 light emitting diode

1 9V battery with connector leads

2 springs and one 1.5V bulb

Procedure

Set up the apparatus as shown in the circuit diagram below:-



PROCEDURE (continued)

1. Connect the light emitting diode (LED) so that the bulb lights up.
2. Disconnect the LED and reverse its connections.

RESULTS and CONCLUSIONS

Describe what happens when you reverse the connections.

Diodes and LEDs are often used as rectifiers in circuits where an alternating current is used.

What is meant by an alternating current? _____

What is a rectifier? _____

On a separate sheet of paper.

Using your observations explain how diodes can act as rectifiers in circuits involving alternating current.

Draw what you would expect to see on an oscilloscope for:-

- a) an alternating current
- b) an alternating current with a diode in the circuit