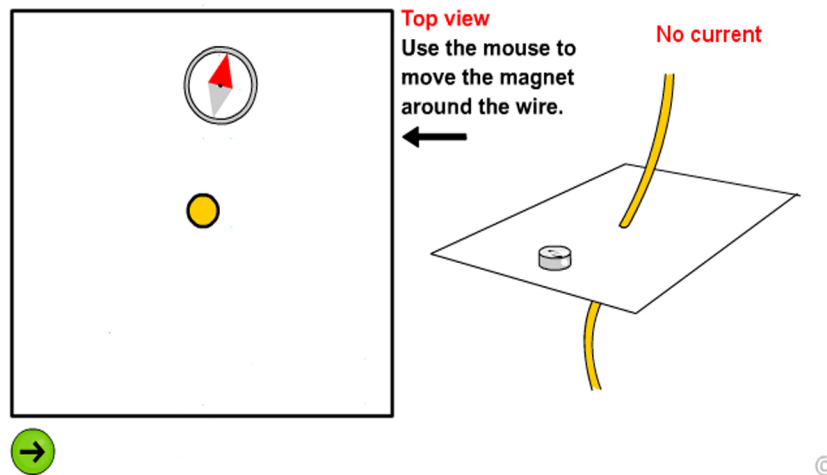




Exercise 1: The Magnetic Field around a straight wire carrying a current

A magnetic compass is placed near to a straight wire as shown below. The red end of the magnetic compass is the North Pole.



1. Question

Move the magnetic compass around. When no current flows through the wire, the magnetic compass:

- points towards the wire's South Pole
- points towards the Magnetic North Pole
- does not work
- points towards the magnet's North Pole

2. Question

Switch on the current by clicking on the green arrow circle. Move the magnetic compass around. When current flows upwards through the wire, the magnetic compass:

- points in a clockwise direction
- points towards the Magnetic North Pole
- does not work

- points in an anticlockwise direction

3. Question

Change the direction of the flow of current by clicking on the green arrow circle again. Move the magnetic compass around. When the direction of current is reversed and current flows downwards through the wire, the magnetic compass:

- points in an anticlockwise direction
- points in a clockwise direction
- points towards the Magnetic North Pole
- points towards the Magnetic South Pole

4. Question

Move the magnetic compass around with current still flowing through the wire. When current flows through the straight wire, the shape of the magnetic field present is:

- from the North Pole to the South Pole
- squarish
- circular
- very similar to that of a bar magnet

Finish quiz

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