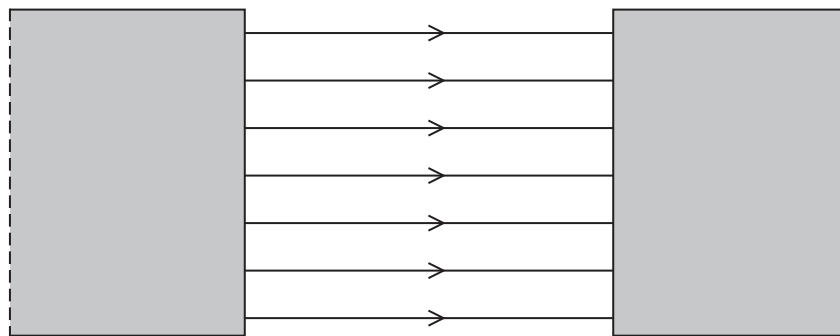


- 2 Diagram 1 shows the magnetic field between the poles of two strong bar magnets.



**Diagram 1**

- (a) Add labels to diagram 1 to show the poles of the bar magnets.

(1)

- (b) The bar magnets are made from steel.

Give one reason why steel is a good material for making bar magnets.

(1)

- (c) Explain how diagram 1 shows a uniform magnetic field.

(2)

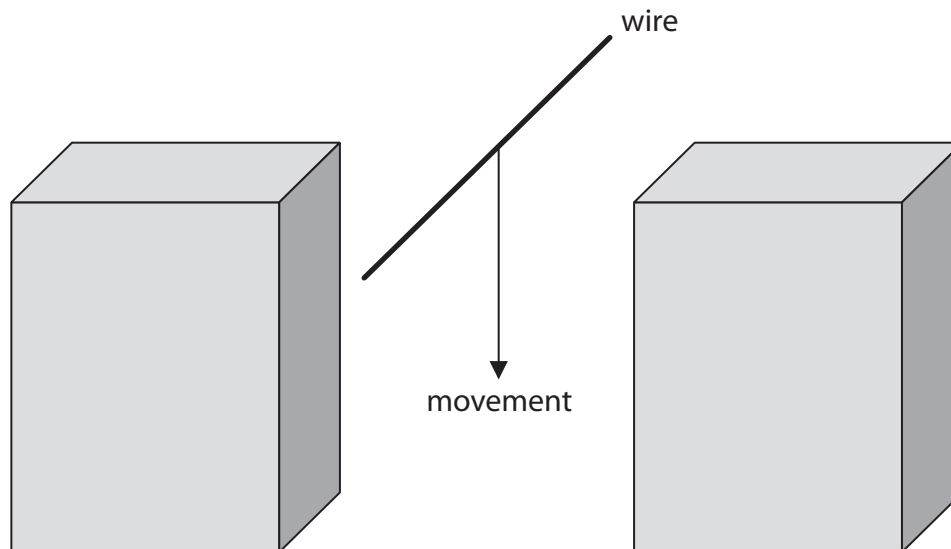
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- (d) Diagram 2 shows a metal wire being moved downwards through the uniform field between the poles of the same bar magnets. The orientation of the magnets has not been changed.



**Diagram 2**

- (i) Give a reason why a voltage is induced between the ends of the metal wire as it moves between the poles of the bar magnets.

(1)

- (ii) State two changes that could be made to this arrangement that would increase the magnitude of the induced voltage.

(2)

- 1 .....
- 2 .....

**(Total for Question 2 = 7 marks)**

