

- 4 This photograph shows an electromagnetic device used to keep a door open.



The electromagnet attracts the metal plate to hold the door open.

The electromagnet is connected to a fire alarm circuit.

When the fire alarm sounds, the door is released and it closes.

- (a) State why the metal plate is made of iron.

(1)

- (b) Describe the construction of an electromagnet.

You may draw a diagram to help your answer.

(3)



(c) Describe the changes that allow the electromagnet to release the door when the fire alarm sounds.

(2)

(Total for Question 4 = 6 marks)

