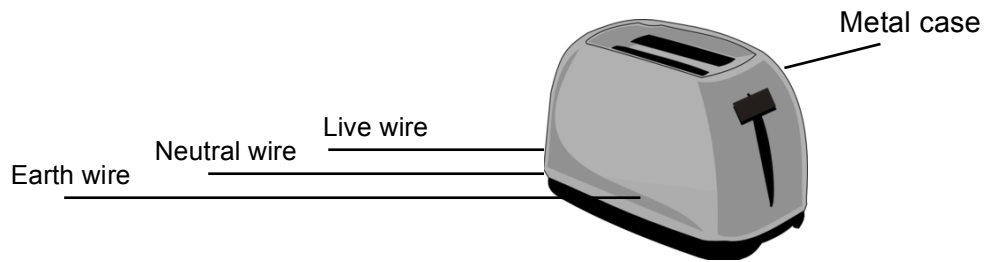


- 1 The diagram shows an electric toaster. The toaster can be connected to an electricity mains supply with a three pin plug.



- 1 (a) (i) The cable connecting the toaster to the mains supply is a three-core cable. Why is it important to have a three-core cable for the toaster shown in the diagram?

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(2 marks)

- 1 (b) The plug connecting the toaster to the mains contains a fuse. Explain how the earth wire and the fuse protect a person from an electric shock when there is a short circuit to the metal case of the toaster.

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(4 marks)

- 1 (c) What is the advantage of using a Residual Current Circuit breaker (RCCB) over a fuse?

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(2 marks)

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