

Electromagnetic Spectrum

- 1.** What is the purpose of the earth wire in a domestic electrical system?

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- 2.** What colour is the neutral wire in a plug?

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- 3.** How does a fuse protect electrical circuits in the home?

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- 4.** What is the typical voltage of domestic electricity supply in the UK?

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5. Why are appliances with metal cases connected to the earth wire?

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6. Calculate the power used by a device that operates at 230 V and draws a current of 5 A.

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7. What is the difference between the live wire and the neutral wire in a domestic electrical system?

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- 8.** Calculate the working current of a 230V 2500W tumble dryer and suggest a suitable fuse for the plug.

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- 9.** Why is it dangerous to have a broken earth wire on an appliance?

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- 10.** Explain the term "double insulation" and why some appliances do not need an earth wire.

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11. Describe how the power rating of a fuse is chosen for a particular appliance.

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12. What happens if a fuse with too high a rating is used in an appliance?

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13. How does the grounding (earthing) system protect people from electric shocks?

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- 14.** Describe the role of the neutral wire in completing an electrical circuit in the home.

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- 15.** Explain the concept of "electrical power" and how it relates to the energy used by appliances.

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