

Match the following statements:



Click mouse to reveal answer

A current is a flow of electrons in a circuit that carries...



Chemical energy found in fossil fuels like crude oil, coal and natural gas.

The higher the voltage...



Energy from the power station to a device found in your home.

When a current flows through a bulb filament...



Mains voltage carries sufficient energy to kill you.

Electrical energy is not destroyed it is simply...



Transformed to other types of energy by devices like bulbs and heaters.

The energy carried by a flow of electrons originates from...



Electrical energy is converted into light and heat energy.

Using electricity safely is important because...



The more energy a flow of electrons transfer to a device.

9I Energy and electricity...How electricity transfer energy

level 5

level 6

level 7

plenary one

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9| Energy and electricity...How electricity transfer energy

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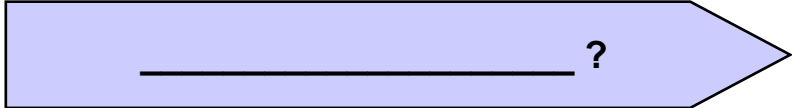
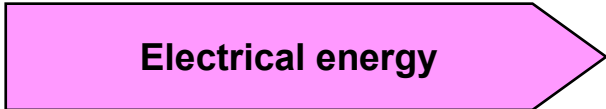


plenary two

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Work out the following energy transfers for devices that use mains electricity: Use the following words; Kinetic, Sound, Light, Heat & Energy. Underline the useful energy in your answer:

 Click mouse to reveal answer

| Electrical energy in | Device | Energy transformation |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  | <p>Kettle</p>  |  |
|  | <p>laptop</p>  |  |
|  | <p>Hair dryer</p>  |  |

9| Energy and electricity...How electricity transfer energy

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Answer:

| Electrical energy in | Device | Energy transformation |
|----------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Electrical energy | <p>Kettle</p>  | <u>Heat</u> and sound energy |
| Electrical energy | <p>laptop</p>  | <u>Light</u> , <u>sound</u> and heat energy |
| Electrical energy | <p>Hair dryer</p>  | <u>Heat</u> , <u>kinetic</u> and sound energy |

9I Energy and electricity...How electricity transfer energy

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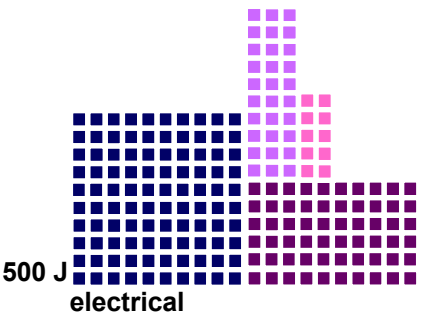

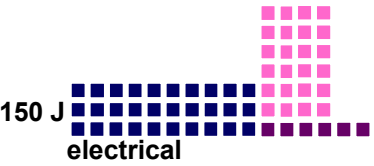
plenary three

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Look at the three devices below: Consider the light bulb. It runs on 150 watts (150 joules per second) and transfers 30 joules per second into light and the rest into heat. This energy transfer can be shown as a diagram. Match the right energy transfer diagram to the right device:

 [Click mouse to reveal answer](#)

| | Console (100W) | Dyson (500W) | Light bulb (150W) |
|---------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Diagram |  |  |  |
| |  <p>500 J electrical</p> |  <p>100 J electrical</p> |  <p>150 J electrical</p> |

9I Energy and electricity...How electricity transfer energy

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Answer:

