

# 9I Energy and electricity

## Extension questions

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Answer the following questions:



Click mouse to reveal answer

- Q1. What is the most useful form of energy?
- Q2. What usually carries electrical current from A to B?
- Q3. What transforms electrical energy to light energy?
- Q4. What transforms chemical energy into electrical energy?
- Q5. What do we call several cells joined in series?
- Q6. Name a precious yellow electrically conducting metal?
- Q7. Name a metal used in house wiring?
- Q8. What do we call the flow of electricity?
- Q9. What changes from "off" to "on" and back again?
- Q10. What type of circuit has electrical components all in a row?
- Q11. What is the SI unit of electrical current called?
- Q12. Name the SI unit of power?
- Q13. What is needed to do work?
- Q14. What rotates to produce electricity?
- Q15. What type of circuit has each electrical component in its own loop?
- Q16. Where is most electricity for cities and towns generated?
- Q17. What do we use to measure a voltage?

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### Answers:

- A1. Electricity
- A2. A wire
- A3. A lamp or LED
- A4. A cell
- A5. A battery
- A6. Gold
- A7. Copper
- A8. Current
- A9. A switch
- A10. A series circuit
- A11. Amp
- A12. Watt
- A13. Energy
- A14. A generator
- A15. A parallel circuit
- A16. A power station
- A17. A voltmeter

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## multiple choice

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Click mouse to reveal answer

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1: What is used in a simple circuit to measure the current ?

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- A A resistor
  - B A voltmeter
  - C An ammeter
  - D A watch
- 

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2: A battery is a store of what type of energy ?

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- A Chemical energy
  - B Sound energy
  - C Electrical energy
  - D Heat energy
- 

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3: Burning gas, moving air and water. How many are used to produce electricity ?

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- A None of them
  - B One of them
  - C Two of them
  - D Three of them
- 

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4: What is the voltage supplied to all homes in the UK ?

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- A 23 Volts
  - B 230,000 Volts
  - C 13 Volts
  - D 230 Volts
-

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multiple choice

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1: What is used in a simple circuit to measure the current ?

---

- A
- B
- C An ammeter
- D

---

2: A battery is a store of what type of energy ?

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- A Chemical energy
- B
- C
- D

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3: Burning gas, moving air and water. How many are used to produce electricity ?

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- A
- B
- C
- D Three of them

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4: What is the voltage supplied to all homes in the UK ?

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- A
- B
- C
- D 230 Volts

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## literacy in science

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Answer all the questions below:

 Click mouse to reveal answer

1) Unscramble the following words:

crrenut

vagolte

sriees

plelral

2) Make three sentences using the following nine words or phrases:

electrical energy  
potential difference  
steam drives

is transformed  
energy transfer  
turbine generator

device or component  
across a component  
electricity

3) Match the word or phrase with the right meaning:

Current

How heat energy spreads through its surroundings

Efficiency

How much energy is wasted by a device

Dissipated

A moving charge around a circuit measured in amps.

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## literacy in science

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Answer all the questions below:

1) Unscramble the following words:

current

voltage

series

parallel

2) Make three sentences using the following nine words or phrases:

electrical energy  
potential difference  
steam drives

is transformed  
energy transfer  
turbine generator

device or component  
across a component  
electricity

3) Match the word or phrase with the right meaning:

Current

A moving charge around a circuit measured in amps.

Efficiency

How much energy is wasted by a device

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How heat energy spreads through its surroundings

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## complete the sentence

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Place the right word or words to complete the sentence:

 Click mouse to reveal answer

voltmeter

high

energy

wave

drive

chemical

converts

coal

motor

- a) We use a \_\_\_\_\_ to measure the potential difference across a component.
- b) A cell or battery converts stored \_\_\_\_\_ energy into electrical energy.
- c) Fossil fuels like \_\_\_\_\_ and gas are a store of chemical energy.
- d) A \_\_\_\_\_ converts electrical energy into kinetic, heat and sound energy.
- e) A bulb \_\_\_\_\_ electrical energy into heat and light energy.
- f) A \_\_\_\_\_ potential difference means that a lot of energy is transferred to a device.
- g) Energy efficient light bulbs reduce our demand for \_\_\_\_\_ .
- h) Renewable energy resources like \_\_\_\_\_ power can be used to generate electricity.
- i) Steam's kinetic energy is used to \_\_\_\_\_ a turbine generator, which then produces electricity.

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## complete the sentence

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Place the right word or words to complete the sentence:

voltmeter

high

energy

wave

drive

chemical

converts

coal

motor

- a) We use a voltmeter to measure the potential difference across a component.
- b) A cell or battery converts stored chemical energy into electrical energy.
- c) Fossil fuels like coal and gas are a store of chemical energy.
- d) A motor converts electrical energy into kinetic, heat and sound energy.
- e) A bulb converts electrical energy into heat and light energy.
- f) A high potential difference means that a lot of energy is transferred to a device.
- g) Energy efficient light bulbs reduce our demand for energy.
- h) Renewable energy resources like wave power can be used to generate electricity.
- i) Steam's kinetic energy is used to drive a turbine generator, which then produces electricity.