

Wordsearch Electricity



Fill in the answer to each of these questions and then find it in the wordsearch

This is often used in a circuit. A filament inside glows and gives off light.

These are used to connect all the components together in a circuit.

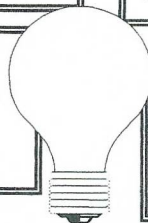
This is used in a circuit to make a noise.

This is used to turn a component on and off in a circuit.

This is when all the components are joined together in a loop with no gaps.

This produces the energy in a circuit.

A material that does allow electricity to flow through it.



A material that does not allow electricity to flow through it.

A drawing using symbols to show how components are joined together is called a

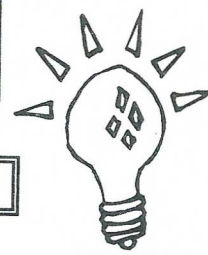
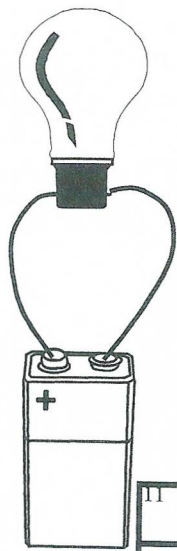
If a circuit had two cells and a bulb and then one cell was removed, the bulb would look...

If a circuit has one cell and one bulb and then another cell is added, the bulb will look...



Word Puzzle

Electricity



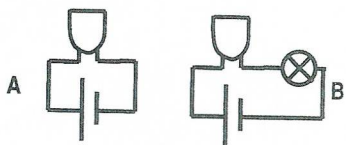
Clues ACROSS



Clues DOWN

6. The drawings used in a circuit diagram are called _____.

7. The buzzer in circuit A will make a _____ noise than the one in circuit B.



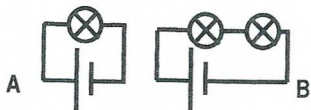
9. You have to be careful when dealing with Mains electricity because it can be _____.

11. If there is a _____ in the circuit, then the electricity cannot flow.

13.  This symbol represents a _____.

14. The power of a cell is measured in _____.

15. The bulb in circuit A will be _____ than the bulbs in circuit B



16. Which is a conductor - copper or rubber? _____

1. We could make a motor turn _____ by adding another cell.

2.  This symbol represents a _____.

3. A material that does not allow electricity to flow through it is called an _____.

4. A material that does allow electricity to flow through it is called a _____.

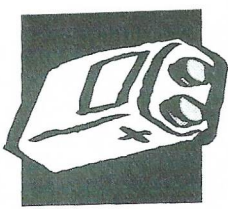
5.  This symbol represents a _____.

8. Do not plug in an item if your hands are _____ because you could get electrocuted.

10.  This symbol represents a _____.

11.  This symbol represents a _____.

12. If resistance wire is used in a circuit with a bulb, then the _____ the wire, the dimmer the bulb.



Data Quiz

Electricity

Helen and Gita want to know if the number of cells that they have in their circuit affects the speed that the motor turns. They have a special motor which has a counter attached to it. It tells them how many times, per second, the motor turns. They connect the motor into a simple circuit, where they can change the number of cells they use.

Here are their results.

Cells Used	Total Voltage (v)	Turns of motor (per sec)
1 AA battery	1.5	1
2 AA batteries	3.0	2
3 AA batteries	4.5	4
4 AA batteries		7
5 AA batteries	7.5	10
1 rectangular battery	9.0	10
2 rectangular batteries	18.0	10

Answer the questions below. Each answer will be a number.

- How many turns were made by the motor when 1 AA battery was used? _____
- What voltage was used when the motor turned 2 times per second? _____
- How many AA batteries were used to achieve 7.5V in the circuit? _____
- The girls did not complete their table. What would the total voltage be for 4 AA batteries? _____
- What voltage was the rectangular battery? _____
- How many batteries were used to achieve 7 turns of the motor per second? _____
- Gita wanted to try with a voltage of 27 volts. How many rectangular batteries would she need? _____
- When the voltage rose from 3 volts to 7.5 volts, what increase in turns per second, did the girls notice? _____
- What was the maximum speed of this motor, in turns per second? _____
- Gita and Helen decided not to try with 6 AA batteries. What would the voltage have been? _____

Now, look on the alphabet grid, see what letter each number represents and write it down in the empty grid at the bottom of the page. If all your answers are correct, you will spell out an alternative power source!

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
6	13	21	12	10	17	20	2	16	7	25	5	24	22	3	4	18	9	1	19	11	14	8	23	15	26

ELECTRICITY

Wordsearch Answers

This is often used in a circuit. A filament inside glows and gives off light. BULB

These are used to connect all the components together in a circuit. RES

This is used in a circuit to make a noise. BUZZER

This is used to turn a component on and off in a circuit. SWITCH

This is when all the components are joined together in a loop with no gaps. COMPLETE CIRCUIT

This produces the energy in a circuit. CELL

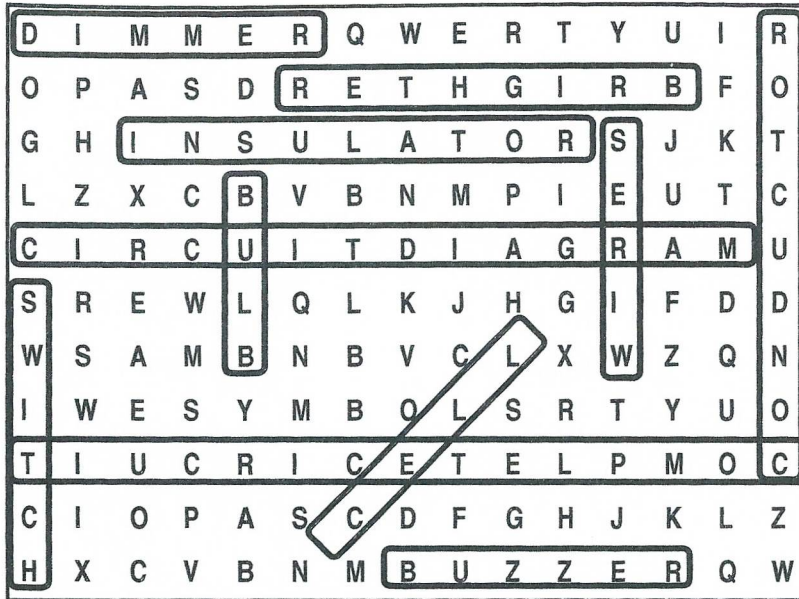
A material that does allow electricity to flow through it. CONDUCTOR

A material that does not allow electricity to flow through it. INSULATOR

A drawing using symbols to show how components are joined together is called a CIRCUIT DIAGRAM

If a circuit had two cells and a bulb and then one cell was removed, the bulb would look DIMMER

If a circuit has one cell and one bulb and then another cell is added, the bulb will look BRIGHTER



Word Puzzle Answers

- Across: 6. SYMBOLS 7. LOUDER 9. DANGEROUS. 11. BREAK 13. CELL 14. VOLTS
 15. BRIGHTER 16. COPPER
 Down: 1. FASTER 2. BUZZER 3. INSULATOR 4. CONDUCTOR 5. MOTOR
 8. WET 10. SWITCH 11. BULB 12. LONGER

Data Quiz Answers

- 1.1 2.3 3.5 4.6 5.9 6.4 7.3 8.8 9.10 10.9

MESSAGE: SOLAR POWER