



Science

Grade 6





8. Electricity for a Comfortable Life

- ✚ Electricity for day-to-day life
- ✚ Generating electricity
- ✚ Preparation of circuits
- ✚ Conductors and insulators
- ✚ Electronic appliances
- ✚ Conservation of the electricity and the prevention of accidents

Pre learning

01. Write 5 instances where electricity is used in household activities.
 - 1.1 List those electronic appliances which are operated using electricity.
 - 1.2 Write how the above functions are done in houses without electricity and equipment?
02. What materials are used to prevent electrical shortages in electronic appliances?
03. What are the different types of electric bulbs used in your home? Which of them consume less electricity?

Refer your text book to answer the questions below. Never use domestic electricity in activities related to electricity.(It can cause serious accidents)

01. Mention the methods of generating electricity in the following Instances.

Instance	Method of generating electricity
Television	
Solar powered calculators	
Wall clock	
Lamp in the push bicycle	
Torch	



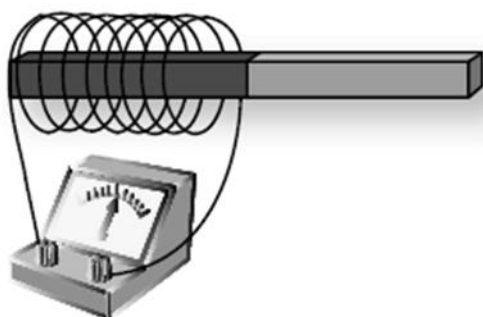
02. (i) If you are provided a lime, pieces of copper and zinc sheets and a galvanometer, draw the way of generating electricity using them.

(ii) What is the use of a galvanometer in this set up?

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03.



The above diagram shows the way of generating electricity by using copper wires and a magnet.

i. How electricity does is generated in the above set up?

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ii. What are your observations and the conclusion that you can come in to?

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iii. Give some examples for instances where the electricity is produced using the above manner.

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04. Fill the following table referring to the electricity generating methods in power stations in Sri Lanka.

Type of Power Station	Electricity generating method.	Location
Hydropower station		
Wind power stations		
Coal power plant		
Fuel power plant		

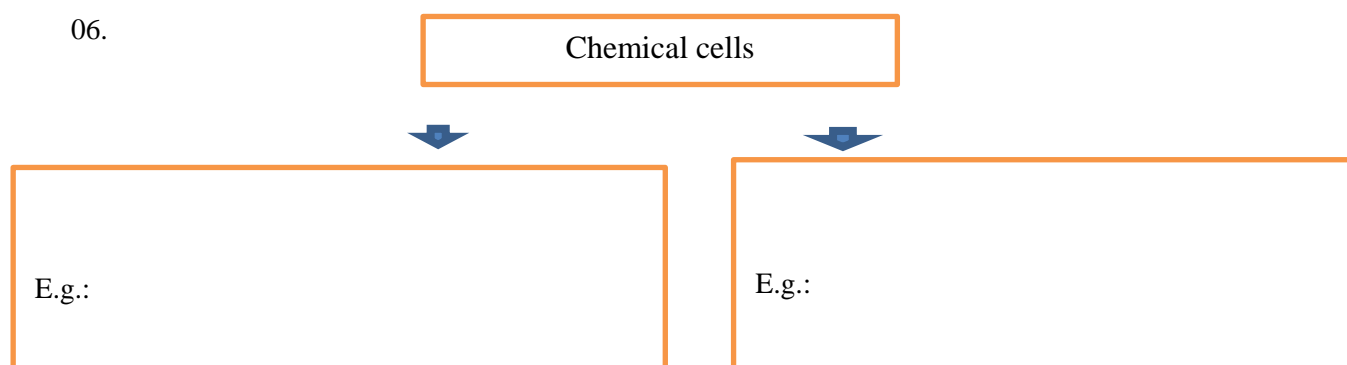
05. (i) Draw the way of lightning a bulb using simple cell.

(ii) What are the weaknesses of simple cells to not use them in day today activities?

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06.





07. Identify the following equipment.



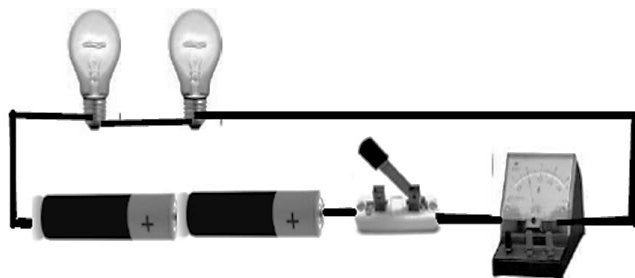
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08. Fill the following table using standard symbols which are used in electric circuits.

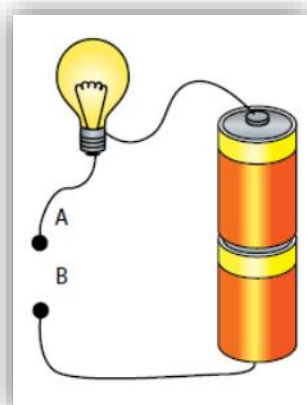
Appliance	Use	Symbol
Connecting wires		
switch		
Electrical Bulb		
Ammeter/ Milliammeter		
Galvanometer		
Electric cells		



09. Draw the Following circuit using standard symbols.



10. Prepare the circuit shown below by connecting two batteries, wires and a torch bulb. Fill the following table by observing whether the bulb lights up when the materials given in the table below connect the terminals A and B.



Materials	The bulb lights up/ does not light up
The outer casing of the wire	
Copper wire	
A coin	
Dry papers	
The silver colour shiny wrapping of the chocolate	
Carbon rod of a dry cell	
Dry piece of wood	
Pencil graphite rod	
Piece of plastic	
Piece of polythene	



11. Explain what are electric conductors and insulators.

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12. Categorize electrical conductors and insulators according to the above table. Add other electrical conductors and insulators you experimentally found to the table below.

Conductors	Insulators

13. The table below shows some common electric appliances used in circuits. Fill the table.

Appliance	Use	standard symbol
diodes		
Light emitting diode		
Permanent resistors		
Variable resistors		
Light depending resistors		

14. What are the ways that you can use electricity economically? Give examples.

15. What are the instances where accidents can occur due to electricity? Give your suggestions to prevent them.



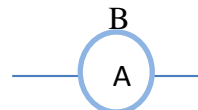
Post learning.

01. Match.

A

1. The cells dispose after using
2. Reusable batteries
3. Voltmeter measures
4. Use to measure a small current.
5. Standard symbol of a battery
6. Standard symbol of an ammeter

B



simple cells

Galvanometer.

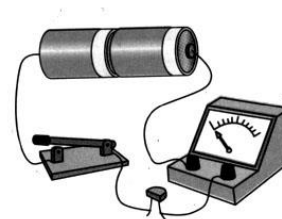


Secondary cell

Voltage

02. There is a light dependent resistor connected in this circuit.

- i. What would happen to the ammeter reading when the LDR is covered?
- ii. What is happening to the ammeter reading when the LDR is exposed to light?
- iii. What can you say there by?



03.

- i. What are the energy sources that are used to generate electricity by the other countries in the world except Sri Lanka?
- ii. What are the green energy sources which are used to generate electricity?
- iii. Discuss why we should keep on conservation of electricity and move for sustainable energy sources.