

LIVING SCIENCE CLASS6 SOLUTION CHAPTER 13. ELECTRICITY AND CIRCUITS

P. 146 Oral Questions For Formative Assessment

1. a. electric cell b. switch c. wires
2. from P to N
3. No, because the circuit is broken

P. 149 Oral Questions For Formative Assessment

1. No, some liquids can conduct electricity, for example, pure water, salt solution, lime juice
2. Bare wires can give us electric shock and a coating of plastic insulates the wire.
3. A car battery, cell of a mobile phone
4. solar energy

P. 149 For Formative and Summative Assessment

A. 1. d 2.c 3.d 4.b 5. a 6. d 7. c 8. c 9. b

B. 1. switch 2. no 3. conductors 4. positive, negative 5. true

6. electrical 7. positive 8. false 9. no 10. true 11. fused 12. no

C. 1. The path for electric current to flow from the positive terminal of a battery to the negative terminal is known as an electric circuit.





2. When the circuit allows the flow of current it is said to be complete or closed.

3. Electricity cannot flow in an open circuit because the path of the current is obstructed and it can no longer flow through the wire.

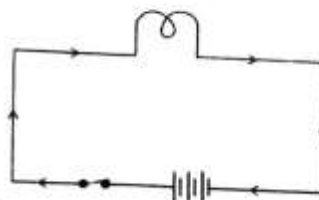
4. An electric cell is needed in an electric circuit to supply electricity.

5. The function of the switch is to break or complete the electric circuit.

6. Ordinary dry cells can supply electricity for a certain time but chargeable cells can be used again and again by charging them.

- D. 1. a. a bulb 
- b. an electric cell 
- c. a switch 
- d. a battery of electric cells 

2. An electric circuit showing flow of electric current.



3. Conductors:

- (i) A substance that allows electric current to flow through it is called a conductor of electricity.
- (ii) Copper, graphite and tap water are conductors.

Insulators:

- (i) An insulator or non-conductor does not allow electric current to flow through it.
- (ii) Plastic, rubber and kerosene are insulators.

4. No. Because aluminium is not an insulating material like plastic, but a conductor of electricity. So, aluminium foil will not prevent us from getting electric shocks while handling electric wires.

5. A solar cell is a cell that directly converts solar energy into electrical energy.

Uses of solar cells:

- (i) Solar cells are used to give electrical power to human-made satellites in outer space.
- (ii) They are also used to give power to street lights.

6. Electricity is generated in power stations and brought to our houses by wires.

HOTS Questions

- 1. No, current will not flow in the circuit because plastic is an insulator and hence, will not allow electric current to flow through it.
- 2. Silver is more conductive, but due to its cost (more expensive than copper or aluminium) it is not used in most cases.
- 3. Conductor because it allows electric charge to travel through it easily.
- 4. Charges may flow through us if we are earthed (in contact with the ground). If we are standing on an insulator such as rubber slippers we are no longer in contact with the ground, and charge can no longer flow through us.
- 5. Inside the cell, the current flows from negative to positive terminal
- 6. In outer space, no other source of electricity is available except solar energy. So, only solar cells are used as a source of power in satellites.