



Before 1879, direct current (DC) electricity was used in arc lights for outdoor lighting. In the late 1800s, [Nikola Tesla](#) pioneered the generation, transmission, and use of alternating current (AC) electricity, which reduced the cost of transmitting electricity over long distances. Tesla's inventions brought electricity into homes to power indoor lighting and into factories to power industrial machines.

### **ACTIVITY 1**

*Answer the following questions*

1. What is electricity?
2. Why is the electricity that we use, considered a secondary source of energy?
3. What is meant by the term energy carrier?
4. List TWO jobs that people use electricity to do.
5. From the passage, identify THREE things that were used to provide energy before the invention of electricity.
6. Name THREE persons who made a significant contribution to our understanding of electricity.
7. What does the abbreviation DC mean?

### **ACTIVITY 2**

*Use your dictionary to find the meaning of the following words as used in the passage*

- (1) nuclear energy
- (2) decipher
- (3) pioneered
- (4) Industrial machines.
- (5) mechanical energy

## ANSWER SHEET

### ACTIVITY 1

1. What is electricity?

Electricity is the flow of electrical power or charge.

2. Why is the electricity that we use, considered a secondary source of energy?

The electricity that we use is a secondary energy source because it is produced by converting primary sources of energy such as coal, natural gas, nuclear energy, solar energy, and wind energy, into electrical power.

3. What is meant by the term energy carrier?

*Energy carrier*, means that electricity can be converted to other forms of energy such as mechanical energy or heat.

4. List TWO jobs that people use electricity to do.

Two jobs we use electricity for are lighting and heating things in the home.

5. From the passage, identify THREE things that were used to provide energy before the invention of electricity.

Before electricity became widely available, candles, whale oil lamps, and kerosene lamps provided light; iceboxes kept food cold; and wood-burning or coal-burning stoves provided heat.

6. Name THREE persons who made a significant contribution to our understanding of electricity.

Three persons that made contribution to our understanding of electricity are Benjamin Franklin, Thomas Edison, and Nikola Tesla

7. What does the abbreviation DC mean?

DC means Direct Current

## ACTIVITY 2

*Use your dictionary to find the meaning of the following words as used in the passage*

1. Nuclear energy- also called atomic energy, is [energy](#) that is released in significant amounts in processes that affect atomic nuclei, the dense cores of [atoms](#).
2. Decipher - to [discover](#) the [meaning](#) of something hard to [understand](#) or which [contains](#) a [hidden message](#):
3. Pioneered- a [person](#) who is among the first to [study](#) or [develop](#) something:
4. Industrial machines or Industrial Machinery means machinery used in a specific trade or manufacture and includes but is not necessarily limited to oilfield and construction equipment.
5. Mechanical energy- the energy of an object due to its motion or position; the sum of an object's kinetic energy and potential energy