

# LESSON 11      Age of Machines : Industrial Revolution

## Assessment Zone

### I. Tick the correct option

1. The first metal to be used was:

Ans : copper

2. It is a fossil fuel:

Ans : coal

3. The first steam engine was designed and developed by:

Ans : Thomas Savery

4. The power to drive the steam engine was provided by :

Ans: coal

5. Rotary printing press was designed and developed by:

Ans : Richard March Hoe

## II.Fill in the blanks

1.The first tool to be used were made of stone.

2. Solar energy can be converted into heat and electricity.

3. Force of wind is used to run windmills

4. Benjamin Franklin proved that lighting was a electrical current.

5. With the use of machines , goods could be produced in large quantities.

## III. Mark the statements are True(t) or false(f).

1.Solar energy is air in motion.

Ans: false

2. An axle is a rod or pole centered in the wheel that allows the wheel to turn around it.

Ans : true

3. The discovery of copper replaced the use of iron with that of copper.

Ans : false

4. Present era is the 'Age of machines'.

Ans: true

5. Mineral oil was among the first fuels to be used.

Ans: false

IV. Answer in brief.

1. What types of tools were invented by early humans?

Ans: Early humans made tools from materials like bone , wood and stone.

2. Name the energy resources that cause pollution of environment.

Ans: Fossil fuels are limited energy resources which cause pollution.

3. What was the major invention in the early history of mankind?

Ans: The wheel has been a major invention in the history of mankind.

4. Name a fossil fuel?

Ans : coal is a fossil fuel.

5. What is solar energy?

Ans: solar energy is the sun's rays that reach earth . This energy can be converted into heat and electricity

V. Answer the following in brief:

1. What do you understand by the term 'industrial revolution'?

Ans: The revolutionary change in the system of production from hand-made goods to machine- made goods was called the industrial revolution.

2. Name any two early applications of the steam engine.

Ans: The early steam engine was used for mining purposes and in motorized vehicles.

3. Write any three uses of solar energy.

Ans: Solar energy is used to heat water for use in homes , buildings or swimming pools; to operate a turbine to generate electricity or to light up homes and power domestic electrical applicanes.

4. Briefly explain Benjamin Franklins experiment.

Ans: Benjamin Franklin flew a child's kite on a cloudy day during lighting and thunderstorm. To this kite, he had attached a strong wire and the other end of the wire was tied to a key . when lighting occurred , he experienced a shock on touching the key . This proved Benjamin's observation and led to the discovery of electricity.

5. What are the advantages of using wind energy?

Ans: There are many uses of using wind energy as it is a clean fuel . wind farms produces no air and water pollution because no fuel is burned . wind is a renewable fuel because it uses solar energy.