

# St. Thomas School, Dhurwa, Ranchi – 4.

Class: 5

Subject: SCIENCE

## Practice Paper with Model Answers

### Chapters 9

### Work and energy

I. Give the technical term for the following.

1. Energy resources that can last for long periods of time

Ans. Renewable resources of energy

2. The electricity produced by the energy of flowing water

Ans. Hydro-electric energy

3. Full form of LPG

Ans. Liquefied Petroleum Gas

4. The energy possessed by water stored at a height behind a dam in a reservoir

Ans. Mechanical energy

5. Energy produced by the vibration of objects

Ans. Sound energy

II. Fill in the blanks with the appropriate terms.

1. A push and pull is called force.
2. Electrical energy is produced at large quantities in power stations.
3. The sun is the main source of light energy, during the day.
4. Sound energy enables us to hear.
5. The food we eat contains chemical energy.

III. Give two examples for each of the following.

1. Fossil fuel

Ans. (a) Coal (b) Petroleum

2. Work done

Ans. (a) Boy kicking a football (b) A weightlifter lifting weight

3. Renewable energy

Ans. (a) Solar energy (b) Wind energy

4. Two mediums through which sound can travel

Ans. (a) Air (b) Water

5. Work not done

Ans. (a) Reading a book (b) Standing still with a heavy load on head

#### IV. Differentiate between the following.

1. Renewable and nonrenewable resources (availability)

Ans	<u>Renewable resources</u>	<u>Non-renewable resources</u>
	These are present in ample quantity in nature.	These resources are present in limited amount in nature.

2. Wind energy and light energy (Use)

Ans	<u>Wind energy</u>	<u>Light energy</u>
	Wind energy is used to move the fans of a windmill.	It enables us to see things.

#### V. Define the terms.

1. Work:

Work is said to be done when a force applied on an object displaces it in the direction of the force itself.

2. Energy:

Energy is the ability to do work.

3. Transformation of energy:

The change of energy from one form to another is called transformation of energy.

4. Non-renewable energy:

Energy obtained from sources such as coal, petroleum, etc., that get exhausted forever is called non-renewable energy.

#### VI. Write true or false.

1. If there is no displacement in an object then no work is considered to be done. - True
2. We require the same amount of energy to do all our work. - False
3. Solar energy produce electricity. - True
4. Work can only be done with the help of energy. - True

#### VII. State the energy transformation in each of the following.

1. Windmills

Ans. Wind energy to mechanical energy

2. Loudspeakers

Ans. Electrical energy to sound energy

3. Electric heater

Ans. Electrical energy to heat energy

4. Solar calculators

Ans. Solar energy to electrical energy

VIII. We must judiciously use the non-renewable sources of energy. Give reason.

Ans. Non-renewable sources of energy are available in limited supplies and will not last for long. So we need to use them judiciously.

IX. Draw neat and labelled diagrams of

i. Two energy-giving food

ii. A device that uses the energy of direct sunlight to cook food

Ans. i. Refer to page no. 112

ii. Refer to page no. 113

