

WELCOME TO THE ONLINE CLASS

SESSION NO.: 21

CLASS: 5

SUBJECT: SCIENCE

CHAPTER NUMBER: 11

CHAPTER NAME: FORCE AND ENERGY

**SUB TOPIC: ENERGY, DIFFERENT FORMS OF ENERGY- WATER
ENERGY, MECHANICAL ENERGY, HEAT ENERGY**

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

To enable the learner to:

- **understand about energy.**
- **identify the types of energy.**
- **understand the importance of energy in real life.**

LET'S RECAP

- **Name them:**
 - **The energy that we get from the sun.**
 - **The energy from the hot interior of the earth.**
 - **A renewable source of energy.**
- **What do you mean by renewable source of energy?**

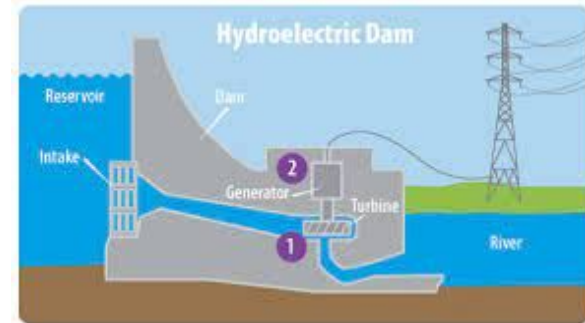
ENERGY

- Energy is the ability to do work.
- Energy is everywhere in nature: sunlight, water, wind, plants and animals.



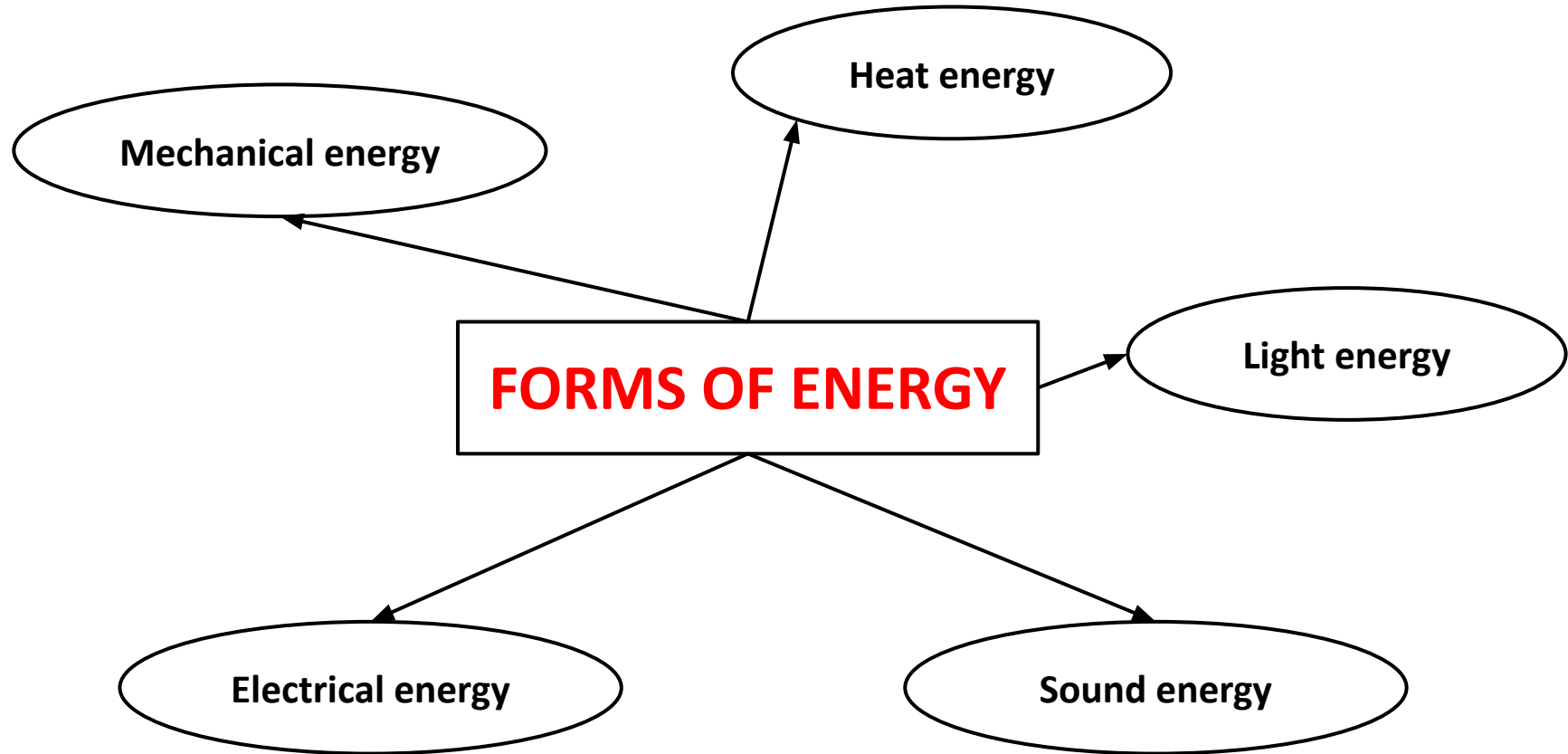
WATER ENERGY/ HYDRO ENERGY

- It is another one important renewable sources of energy for generating power
- It is one of the oldest sources of energy



DIFFERENT FORMS OF ENERGY

- **Mechanical energy**
- **Heat energy**
- **Light energy**
- **Sound energy**
- **Electrical energy**



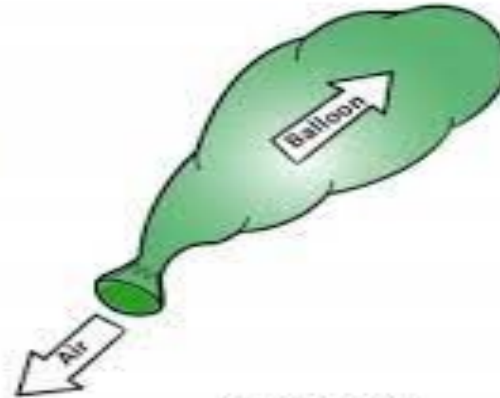
MECHANICAL ENERGY

- The energy which is posed by an object due to its motion or due to its position is called mechanical energy.

Potential and Kinetic Energy



Potential energy



Kinetic energy

TYPES OF MECHANICAL ENERGY

- Mechanical energy can be either kinetic energy or potential energy.

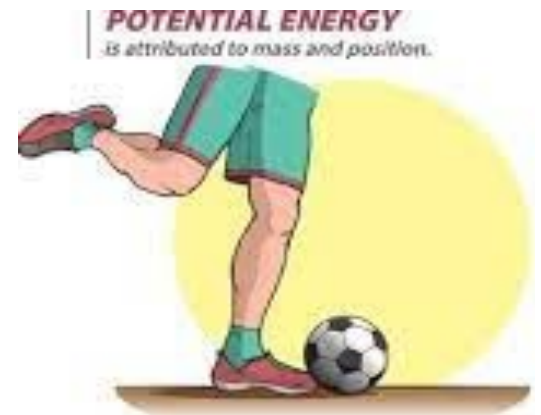


POTENTIAL ENERGY

- The energy which is posed by an object due to its position is called potential energy.
- For example- water that is behind a dam, a raised weight, a book on a table before it falls, etc. are examples of potential energy.



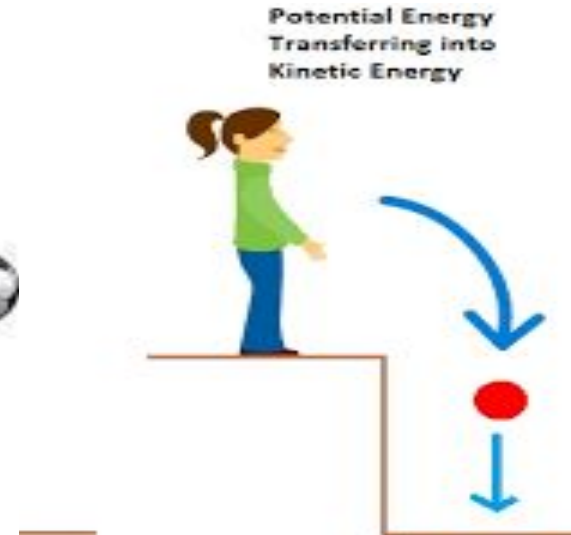
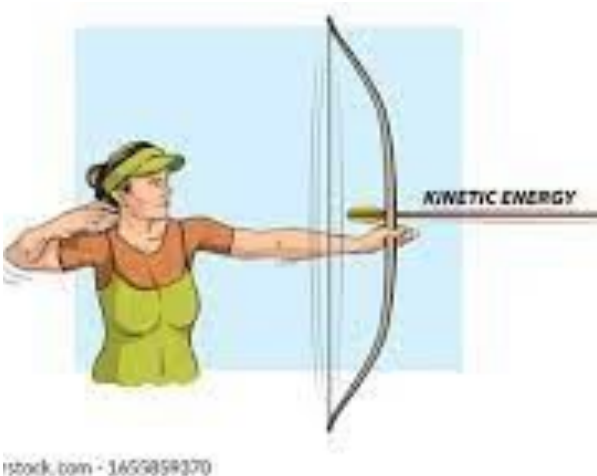
shutterstock



shutterstock

KINETIC ENERGY

- The energy which is posed by an object to its motion is called kinetic energy.
- For example- a falling ball, a moving car, a moving cycle, etc. are examples of kinetic energy.



HEAT ENERGY

- Heat is a form of energy.
- It is used for cooking our food, boiling water, etc.
- Heat energy comes from burning of fuels like coal, kerosene, petrol etc.



SUMMARY

- Energy is the ability to do work.
- The energy that we get from water is known as hydro energy.
- There are different forms of energy.
- They are:
 - Mechanical energy
 - Heat energy
 - Light energy
 - Sound energy
 - Electrical energy
- Mechanical energy can either be kinetic energy or potential energy.
- Heat energy is used to keep our planet warm and do various other works.

READY FOR A
QUIZ ?

2. _____ is one of the oldest sources of energy.

Ans: Water energy

3. A running cycle possess _____ energy.

Ans: Kinetic

HOMEWORK

Do the questions A, B & C in your notebook.

D. Write short answers.

1. Name the different types of forces.

Ans: The different types of forces are:

- a. muscular force**
- b. gravitational force**
- c. frictional force**
- d. elastic force**
- e. mechanical force**
- f. buoyant force**

2. What are simple machines?

Ans: Tools that make our work easier, faster and with less force are called simple machines. They have only few simple parts.

3. Why is geothermal energy referred to as a renewable source of energy?

Ans: Geothermal energy is referred to as a renewable source of energy because the heat is continuously produced inside the earth.

D. Write short answers.

4. From where does most of the heat energy come?

Ans: Most of the heat energy comes from the sun and from the burning of fuels like coal, kerosene and petrol.

5. Name four different forms of energy.

Ans: The four different forms of energy are:

heat energy

light energy

sound energy

electrical energy

LEARNING OUTCOME

The learner will be able to:

- **understand about energy.**
- **identify the types of energy.**
- **understand the importance of energy in real life.**

THANKING YOU
ODM EDUCATIONAL GROUP