

# WELCOME TO THE ONLINE CLASS

**SESSION NO.: 2**

**CLASS: 5**

**SUBJECT: SCIENCE**

**CHAPTER NUMBER: 11**

**CHAPTER NAME: FORCE AND ENERGY**

**SUB TOPIC: LONG Q & A**

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**CHANGING YOUR TOMORROW**

# LEARNING OBJECTIVE

**To enable the learner to:**

- **write the questions and answers**

## A. Tick the correct answer.

1. We are able to stay on the ground because of
  - a. **gravitational force**
  - b. elastic force
  - c. buoyant force
  - d. frictional force
2. A screw jack used to lift a car is a
  - a. first class lever
  - b. pulley
  - c. second class lever
  - d. **screw**
3. The most readily available source of energy is
  - a. wind energy
  - b. **solar energy**
  - c. geothermal energy
  - d. water energy
4. The upward push of water on a floating object is called
  - a. **buoyant force**
  - b. volume
  - c. density
  - d. pressure

## B. Fill in the blanks.

1. Most simple machines make use of \_\_\_\_\_ force.

**Ans: Muscular / applied**

2. There is no \_\_\_\_\_ force in space.

**Ans: Gravitational**

3. Simple machines change the \_\_\_\_\_ of applied force.

**Ans: Direction**

4. A moving car possesses mechanical energy due to its \_\_\_\_\_.

**Ans: Motion**

5. An inclined plane is a \_\_\_\_\_ which makes work easier.

**Ans: plane / slope**

## C. Change the underlined words to correct these statements.

1. A stretched rubber band regains its original position on being released because of gravitational force.

**Ans: Elastic**

2. Geothermal energy is a non-renewable source of energy.

**Ans: Renewable**

3. The pulley used for drawing water from a well is a movable pulley.

**Ans: fixed**

4. Simple machines make our work complicated.

**Ans: easier**

5. We are able to walk because of elastic force.

**Ans: frictional/ gravitational**

## E. Answer these questions.

### 1. What is a lever? On what basis are levers classified?

**Ans:** A lever is a rigid rod arranged in such a manner that it can move freely around a fixed point.

Levers can be classified on the basis of the position of the fulcrum, the load and the effort.

- When the fulcrum is in between the load and the effort, it is a first-class lever.
- When the load is in between the fulcrum and the effort, it is called a second-class lever.
- When the effort is in between the fulcrum and the load, it is a third-class lever.

## E. Answer these questions.

### 2. What is an inclined plane? How is it useful for us?

**Ans:** An inclined plane is a slope which makes work easier.

It is useful to us in the following ways:

- Workers can easily load or unload on a truck using a plank of wood.
- In hospitals and some other buildings inclined planes called ramps are provided next to stairs which helps them in pushing up wheelchairs.

### 3. Does a screw join two pieces of wood better than a nail? How?

**Ans:** When we join things together with the screw they are held together through a longer distance and thus cannot be forced apart easily.

On the other hand, when we join things with the nail they are held together only for a short distance, that is through the length of the nail. That is why a screw is better than a nail.

## E. Answer these questions.

**4. What does the law of conservation of energy state?**

**Ans:** The law of conservation of energy states that energy can neither be created nor destroyed. It can change from one form to another.

**5. How is wind energy more environment friendly than heat energy?**

**Ans:** Wind energy is plentiful and renewable, widely distributed, clean and non polluting. Therefore, it is considered to be more environment friendly than heat energy.



# **HOMEWORK**

**Learn the Q & A.**

# LEARNING OUTCOME

**The learner will be able to:**

- **write the questions and answers.**

**THANKING YOU**  
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