

**Grade : 4 Subject:Science Name: Date:6.1.23**

**11.FORCE,WORK AND ENERGY**

**I. Write short answers**

1. What is force?

 The act of pushing or pulling is called force.

2. Name the different types of forces.

* Gravitational force,
* frictional force,
* magnetic force and
* Electrostatic forces are different types of forces.

3. Which surface causes more friction?

 a. Rough b. smooth

 A rough surface causes more friction than a smooth surface

4. Which form of energy is used by plants to make their food?

 Plants use solar energy to make their food.

5. Which energy is released when an atom breaks down?

 When an atom breaks down, it gives out atomic energy

**II .Answer the following**

1. What do you understand by gravitational force?

* The force by which the Earth pulls an object towards itself is called gravitational force or gravity.
* This force holds everything on the Earth Plants, animals, buildings, water and air are all held down by gravity.
* The ripe fruits fall down because of gravity.
* We can stand on the ground due to gravitational force.

2. What is work? Explain with an example.

 Work is done when a force is able to move an object from one place to another. For example, when you try to move a cupboard and it does not move, we say that no work is done here. But when you pull a table or pick up a book from a cupboard, work is done because the force applied by you his moved the table and book.

3. What is energy? Write the different forms of energy.

 Energy is the ability to do work. The different forms of energy are heat energy, light energy, electrical energy, sound energy and atomic energy.

4. Write a short note on solar energy.

* The energy that we get from the Sun is called solar energy.
* We get light and heat from solar energy.
* Plants make food by using solar energy.
* Solar energy is also used to produce electricity.

5. Define geothermal energy and write what it is used for.

 The heat energy we get from the innermost part of the Earth is known as geothermal energy. This energy is used to produce electricity.

**III. Think and answer**

1 What would happen if there were no gravitational force?

 If there were no gravitational force, then we would not be able to stand on the ground. We would float in the air. Everything around us, our tables, chairs pens and books would float in the air. An apple, for example, would not fall on the ground. It would float in the air after breaking from the tree.

2. You push against a wall. Is work being done? Explain.

3. Why do you think powder is spread on a carom board while playing?

4. What would happen if the Sun was not there?