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CLASS- 4 SUBJECT- EVS

Based On NCERT

Date - 26/12/2020

Chapter - 11

Push And Pull

Frictional Force

Friction is the force which exists when two surfaces come in contact with each other. It slows down the movement of an object. When we roll a ball on the ground, it gradually slows down and stops, because friction acts upon it.



Friction

In our daily life, it is not possible to do many things in the absence of friction.

- ★ We are able to walk on the ground because of friction. It is difficult to walk on a smooth surface compared to a rough surface. This is because smooth surface has less friction as compared to the rough surface.
- ★ Writing on a rough surface is easier than writing on a smooth surface. Pencil does not fall off our hand because friction opposes its motion.



Use of friction

Gravitational Force

The force by which the earth attracts or pulls objects towards itself is called **gravitational force** or **gravity**. All heavenly bodies exert force of gravity. The heavier the body, greater is its gravity. If you throw anything upwards, it will



Things come back to the earth because of gravity.

always come down because of the effect of gravity. For example, when you throw a ball up in the air, it first goes up and then comes down to the earth. Fruits always fall downwards when they



Isaac Newton was the first who explained the force of gravity. He explained this when he saw an apple falling from a tree.

ripe. You often see leaves from a tree falling to the ground and not going up. You are able to stand on a ground because gravity pulls you down. If there was no gravity, we all would have been floating in the air!

Magnetic Force

Magnets attract or pull some metals with a force called **magnetic force**. This force acts even without touching two objects each other. Magnetic force acts on things made up of iron, cobalt and nickel.



Magnetic force



Pulling



Flying



Lifting

Muscular Force

The force exerted by our muscles is known as **muscular force**. We use this force at many places in our everyday life.

All the activities need muscular force

A. Answer the following questions .

1. What are the different types of forces?

Answer = Types of force are :- Frictional Force , Gravitational Force , Magnetic Force and Muscular Force .

2. What is gravitational force?

Answer = The force by which the earth attracts or pulls objects towards itself is called gravitational force .

Jyoti