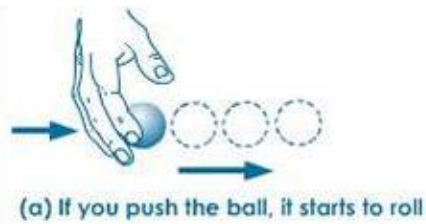


Force

1. Force is a push or pull that can
 - a. Change the state of motion (a and b)



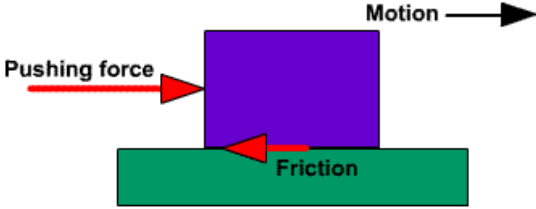
- b. Change the shape



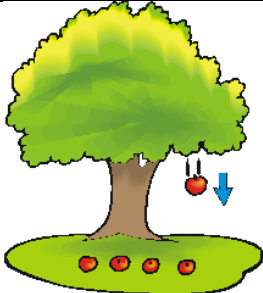
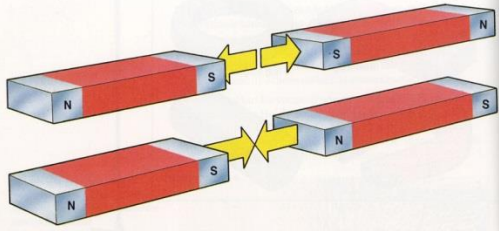
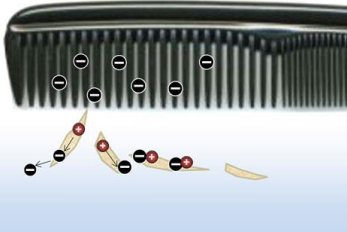
If you apply balanced forces, you merely squeeze the ball

2. Types of forces

a. Contact forces

Force	Definition	Example
Muscular Force	Force applied using parts of the body	
Friction	Force that resists the motion of objects	

b. Non-contact forces

Force	Definition	Example
Gravitational force	Force of attraction between any two bodies due to their mass	
Magnetic force	Force between magnetic substances	
Electrostatic force	Force between two charges.	

SI unit : newton (N)

1 newton is that much force which produces an acceleration of 1 m/s^2 in a body of mass 1 kg

Non- SI unit :

1. Kilogram force

$$1 \text{ kgf} = 1000 \text{ gf}$$

$$1 \text{ kgf} = 9.8 \text{ N}$$

Measurement of Force (weight)



Net effect of Force :

Balanced Forces

(no motion)



Unbalanced Forces

(motion toward the right)

