Force

Thursday, 15 February 2024 1:36 pm

Force - Push or a pull or twist on an object it is a vector quantity

Unbalanced Force cause an object to
- change speed
- Change shape
- Change direction

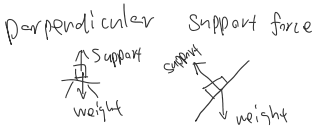
Type of force
Non-contact
- Gravitational force(weight)
- Electric force
- Magnetic force
- Friction
  - Slow object
  - Stop object from moving
- Strong nuclear force

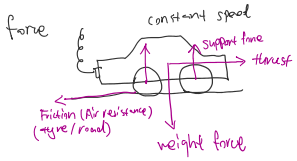
Contact force
- Support / reaction force
  - Push back on something
  - Perpendicular to surface
- Buoyancy
- Thrust
- tension

Force always have equal opposite force

Newtons law
1. The object will remain at the rest or moving at constant velocity(not speed) unless acted by an unbalanced force (net force is not zero)
2. F=ma a=Fnet/m
3. Every action force have equal and opposite force
   a. If object a exerts force on object b, object exerts an equal but opposite force on A (shows the force is vector)

Air resistance
- Is collision with air particle which slow things down
  - More air particle - more air resistance - more collision - more slowdown

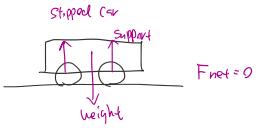




support = weight thrust force = Friction

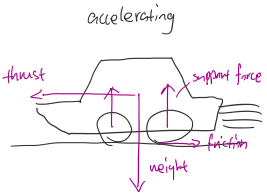
horizontal Fnet = 0 vertical Fnet = 0

Fnet = 0



support = weight

maybe force act on it, but friction stop it, eg: pushing table.



weight = support
vertical Fnet = 0
thrust & friction
horizontal Fnet ≠ 0
Fnet ≠ 0 force is unbalanced.
Fnet = Thrust − friction