## **Gravitational Force**

What is Gravity\_.mp4

Force of attraction between all objects as a result of their mass and distance between them.

- The gravitational force on earth is 9.8 N/kg.This means that bodies accelerate 9.8 m/s² regardless of mass.
- The force becomes weaker as you move away from the center of the earth.

Misconceptions About Falling Objects.mp4

## Mass vs Weight

Mass	Weight
Measures the quantity of matter in an object. What it is made up of.	Measures the gravitational force on the object
Does not vary	√aries depending on the planet or area you are on and measured in N (Neutons)

- Moon's GF = 1.67 N/kg (6x less than earth)
- Sun's GF = 273.65 N/kg (28x more than earth)

## Formula to calculate weight in N

$$W = Fg \times mg$$

W= Weight in N

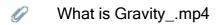
Fg = gravitational force

mg = mass in kg

ex: 90 kg to N

 $9.8 \text{ N/kg} \times 90 \text{ kg} = 882 \text{ N}$ 

## Attachments



Misconceptions About Falling Objects.mp4