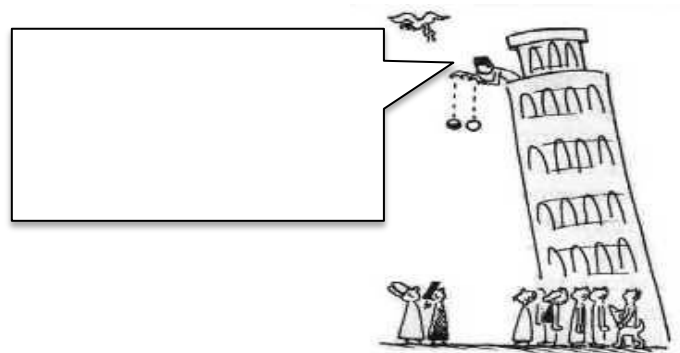


Aristotle



Galileo

When a feather and a hammer are dropped on earth:

When a feather and a hammer are dropped in a vacuum (like space):

Explaining the difference between mass and weight

This dumbbell is made of iron and has a mass of 1KG



If this dumbbell was put on the moon it would have a mass of

If this dumbbell was subject to zero gravity it would have a mass of

Mass is it cannot/can be changed.

What is weight?

Weight is a measurement of FORCE (N)

Gravity affects the weight of an object.

Weight (N) = Mass (Kg) X Acceleration of Gravity

Calculate the weight (N) of yourself on various planets and the moon.

| Planet | Force of Gravity | Your Mass (Kg) | Your Weight (N) |
|---------------|-------------------------|-----------------------|------------------------|
| Earth | 9.8m/s | | |
| Moon | 1.6m/s | | |
| Neptune | 11.5m/s | | |
| Mars | 3.7m/s | | |
| Saturn | 10.4m/s | | |

Gravity is responsible for keeping planets, moons and satellites in orbit. **Who orbits who?**
Draw and label the orbits for: planet Earth, our moon, our sun and a satellite.