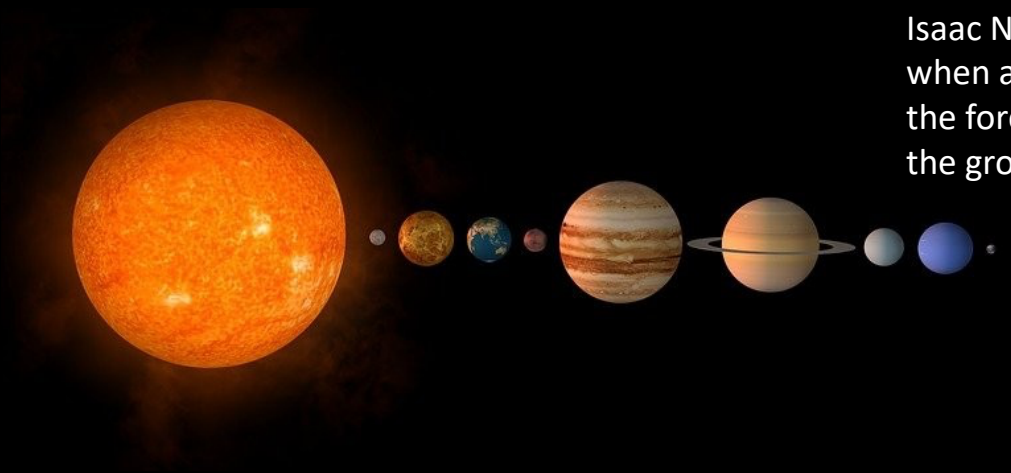
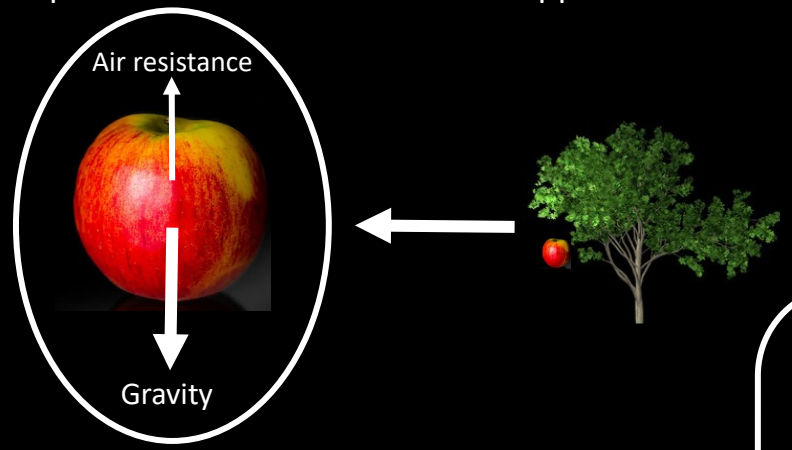
Gravity

Northumbria University NEWCASTLE



Isaac Newton discovered gravity, with the idea first coming to him when an apple fell on his head as he sat under a tree. He proved that the force that keeps the planets in orbit also makes the apple fall to the ground.



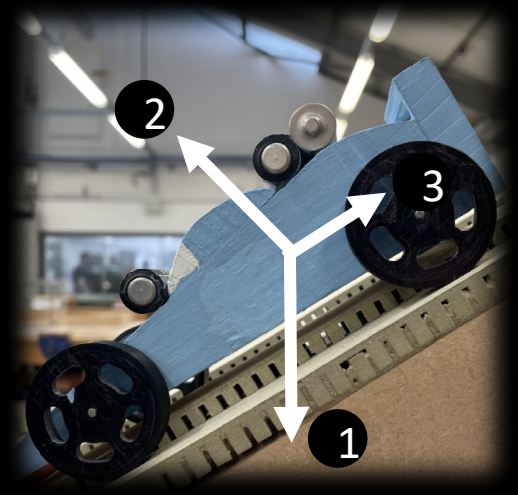
Other types of forces:

- Friction – it is a force between two objects sliding together.
- Air resistance - A force acting against a moving object.

What is gravity

Gravity is a force that acts on everything, it attracts us to the earth and keeps us on the ground. But It also pulls the earth towards us without us noticing. We can see gravity acting on planets as they orbit each other. Like the moon orbiting the earth. And the other planets orbit the sun.

Gravity acts from the centre of masses (centre of objects) to pull them towards each other.



This is a picture of our pine wood derby car. The arrows represent the multiple forces working upon it.

- Force 1: Gravity, a natural force. keeping the car grounded on the track.
- Force 2: Normal force. Acts against gravity pushing the car upward.
- Force 3: Friction. This force acts on the cars wheels which will slow the car down.

Try it yourself:

- Get a ball and a feather
- Stand on a chair or higher area
- Drop each from the same height at the same time.
- What happens when you drop them and why?

Helpful links

- https://www.youtube.com/watch?v=QcUey-DVYjk

What have you learnt so far?

- What is gravity?
- What does gravity act on?
- What are examples of other forces?
- Who discovered gravity?