

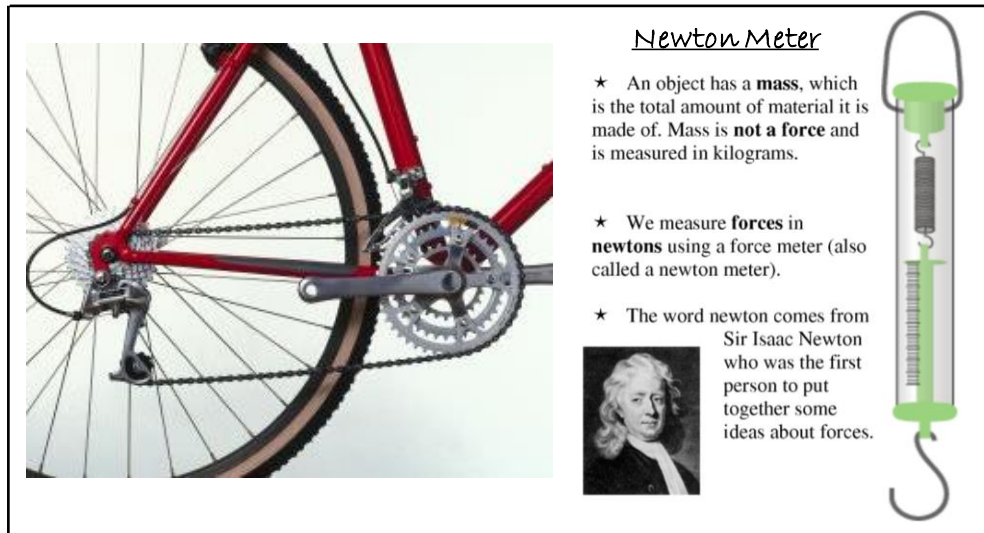
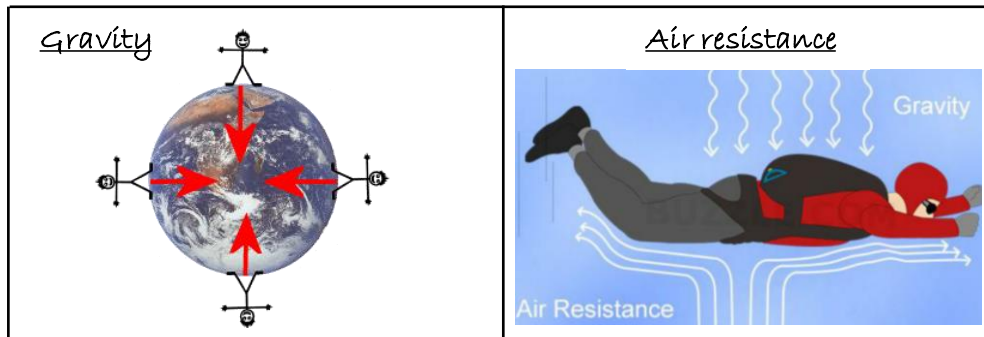
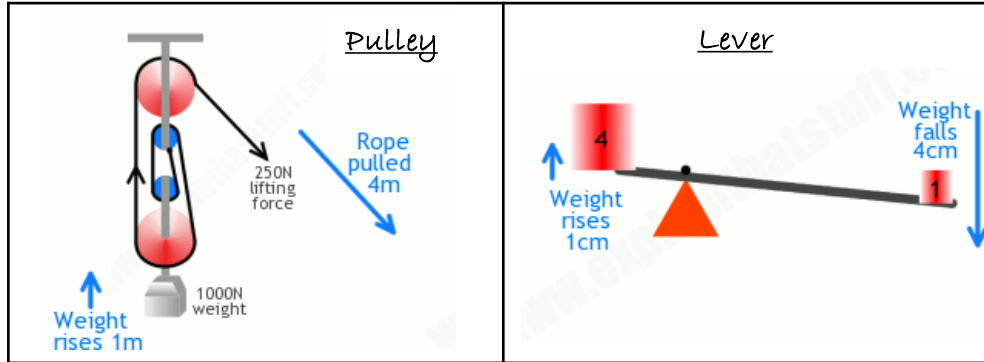
# Science- Forces - Year 5

## Prior Learning:

In Year 3 you were taught compare how things move on a surface. You learnt about magnets and how they attract and repel things from a distance. You grouped items depending if they were magnetic or not. You learnt that magnets have two poles which attract or repel each other depending on which way they are facing.

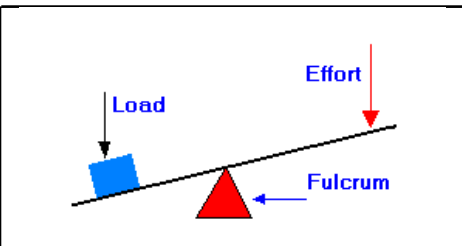
## Key Vocabulary

Gravity	The force that attracts a body towards the centre of the earth
Air resistance	The action of friction of friction that slows something moving through air
Water resistance	The action of friction of friction that slows something moving through water
Friction	The resistance that one surface/object meets when moving over another
Lever	A rigid bar resting on a pivot
Pulley	A wheel over which a pulled rope runs to change the direction of the pull used for lifting a load
Gear	A wheel with teeth around its rim that mesh with the teeth of another wheel to transmit motion
Force	A push or pull on an object that causes it to change speed or direction.
Newton	a unit of force



## Key Learning

- A force causes an object to start/stop moving, slow down or change direction.
- Gravity is a force that acts at a distance.
- Unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- Air resistance, water resistance and friction are constant forces that act between moving surfaces.
- Some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.



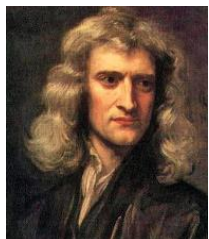
## Can I answer:

Why do things fall to the ground? Can you explain with a diagram?

Why would a ball or paper fall more quickly than a flat sheet? Tell me about the forces involved.

What are the effects of air resistance, water resistance and friction?

What kind of mechanisms can be used to lift heavy loads more easily? How do they work?



Isaac Newton is best known for 'discovering' gravity, but he worked on so many different topics that our understanding of the world was changed forever by his work.