



He carried out his experiment by dropping objects from the Leaning Tower of Pisa!



Galileo Galilei

was an Italian scientist who proved that the pull of gravity on an object is always the same, no matter its weight.

Forces can make an object:

- change direction
- move
- STOP
- CHANGE SHAPE

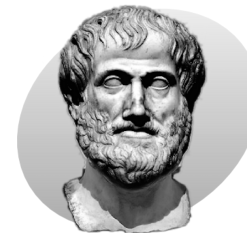
Year Five Forces

Tides are caused by the sun and moon's gravitational pull.



Spring 2

Aristotle



The heavier the object is, the faster it will fall to the ground.

Aristotle was a very famous philosopher and scientist. He was born in northern Greece in around 384BC.



Aristotle v Galileo
These two famous men had different theories of motion.

Glossary

Air resistance– the force that air exerts on a moving object

Force– a push, pull, twist or turn

Friction– the force between 2 moving surfaces

Gravity– a pushing force exerted by the Earth; it attracts objects towards the centre of the Earth

Mass– the measure of how much matter is inside an object; can be measured in g/kg etc

Mechanisms– machines or devices which help to achieve a result

Streamlined– when an object is shaped to minimise the effects of air or water resistance

Upthrust– a force that pushes objects up in water or air

Water resistance– the force that water exerts on a moving object

Weight– the measure of the force of gravity on an object, measured in Newtons (N)

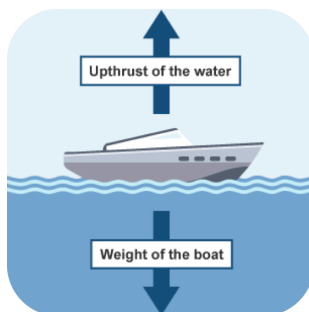
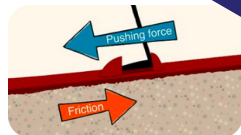
Water resistance and air resistance are forms of friction.



Friction

is a force between two surfaces that are sliding, or trying to slide, across each other.

Friction **ALWAYS** slows a moving object down.



Some mechanisms allow a smaller force to have a **greater** effect.



PULLEYS



GEARS



LEVERS