

What will I know by the end of the unit?

Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.

Identify the effects of air resistance, water resistance and friction that act between moving surfaces (causing things to slow down)

Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. There are different types of forces (push, pull, friction, air resistance, water resistance, magnetic forces, gravity) which have different effects on objects

Gravity can act without direct contact between the Earth and an object



Notable Scientist - Sir Isaac Newton

Sir Isaac Newton was an English mathematician, physicist, astronomer, alchemist, theologian and author, widely recognised as one of the greatest mathematicians and physicists and among the most influential scientists of all time. He formulated gravitational theory in 1665 and 1666 after watching an apple fall and asking why the apple fell straight down, rather than sideways or even upwards. He showed that the force that makes the apple fall and that holds us on the ground is the same as the force that keeps the moon and planets in their orbits. His theory of gravity wouldn't have got us global positioning satellites.