

Key Information	
Forces	Forces are referred to as pushes and pulls. They cause an object to move, stop, speed up, slow down and change direction.
Some types of forces	Gravity, reaction force, friction, air resistance, driving force, water resistance.
Isaac Newton	Discovered gravity.
Galileo Galilei	Italian scientist and mathematician who investigated speed of objects being pulled down to Earth by gravity.
Newton metre	Measures how hard gravity is pulling down on an object.
Friction, water resistance and air resistance	These all cause objects to slow down due to the force they put on an object.
Streamlining	Design of an object to reduce air and water resistance. E.g., an aeroplane has a pointed nose and a smooth curved back to reduce air resistance and travel quickly and smoothly.
Working scientifically:	Independent variable – what is changing in an experiment? Dependent variable – what are you measuring? Controlled variable – what are you keeping the same each time?
Mechanisms:	3 kinds. Levers, pulleys and gears.

Vocabulary	
Gravity	Pulling force. The gravitational pull pulls objects in the direction to the centre of the Earth.
Action force	A force acting in one direction.
Reaction force	Force acting in the opposite direction.
Air resistance	A force that acts in the opposite direction of a moving objects and is a type of friction.
Friction	The resistance of movement when one object rubs to another.
Mass	The amount of matter an object contains.
Weight	Measures the strength of gravity acting on the object. Measured in Newtons (N).
Mechanism	A device that causes a small force to turn into a greater force.

Key Diagrams



Newton metre



Diagram giving examples of three mechanisms.