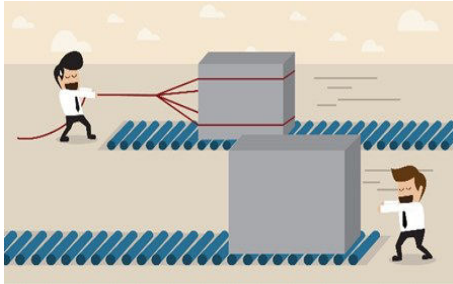
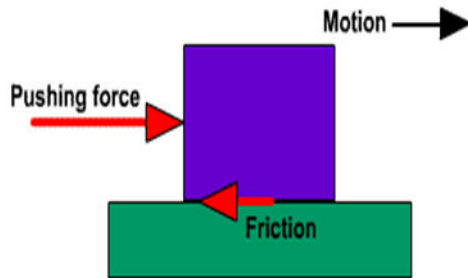


How do forces and magnets affect our every day lives?



Forces are pushes or pulls.

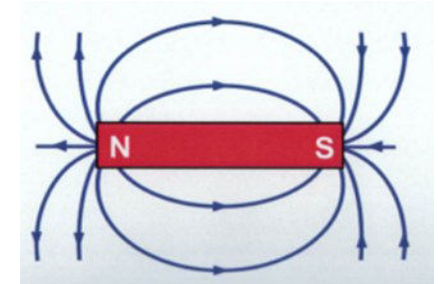
Push and pull forces can make things start and stop moving, make a moving object change direction and change the shape of an object.



Friction is a force between two surfaces that are sliding, or trying to slide, across each other. For example, when you try to push a book along the floor, friction makes this difficult. **Smooth surfaces have less friction.**

A magnet is a special object which produces an area of magnetic force around itself called a magnetic field.

Magnets come in different shapes, sizes and strengths.



Magnets have North Poles and South Poles.

Opposite poles attract (pull together).

The same poles repel (push away from each other).



Sir Isaac Newton (1643 - 1727) An English mathematician, physicist, astronomer and author who is famous for his laws of motion, theory of colour and the discovery of gravity.



Albert Einstein (1879 - 1955) His theories of motion and forces started at five years old when his father gave him his first compass.



John McAdam (1756 - 1836) A Scottish engineer who modernised the way we build our roads.

Push	Force which causes movement away from something.
Pull	Force which causes movement towards something.
Gravity	A force which pulls things towards the centre of the Earth.
Attract	Causes something to move towards.
Repel	Causes something to move away.
Newtons	Unit of measure used to measure the strength of a force.
Magnetic	Materials attracted to a magnet (e.g. iron, steel).
Non-magnetic	Materials not attracted to a magnet (e.g. brass and wood).