Year 3 Physics—Forces and Magnets

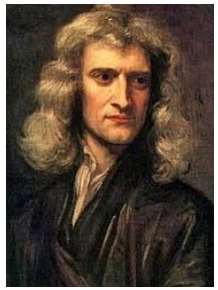
Key Vocabulary

forces	Pushes or pulls
friction	A force that acts between two surfaces or objects that are moving, or trying to move across each other.
surface	The top layer of something
magnet	An object which produces a magnetic force that pulls certain objects towards it.
Magnetic field	The area around a magnet where there is a magnetic force which will pull magnetic objects towards the magnet.
poles	North and South poles are found at different ends of a magnet.
repel	Repulsion is a force that pushes objects away. E.G. when a north pole is placed near the north pole of another magnet, the 2 poles repel (push away from each other)
attract	Attraction is a force that pulls objects together. E.g. when a north pole is placed near the north pole of another magnet, the 2 poles will attract (pull together)

Famous Scientists

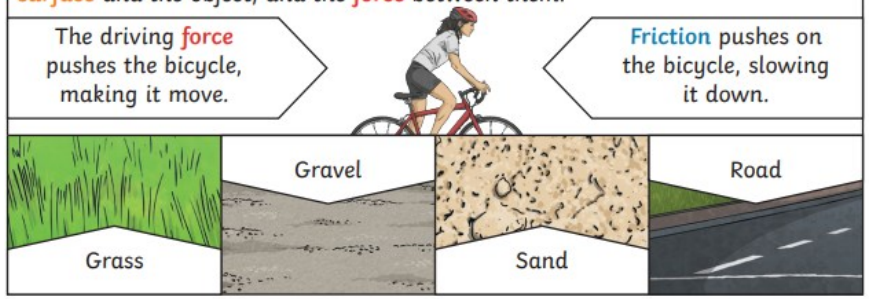
Isaac Newton 16433-1727

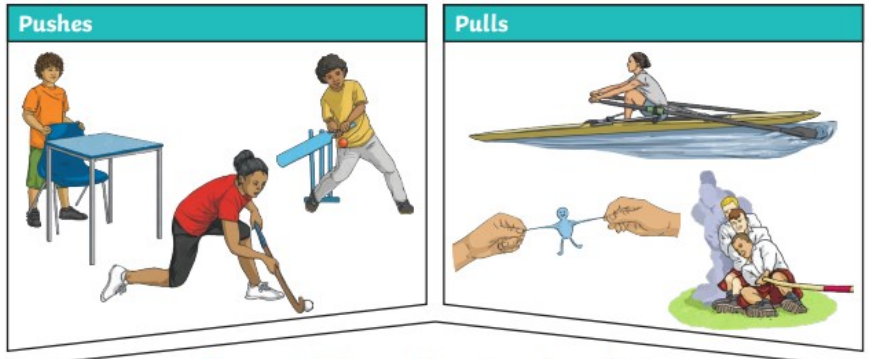
Famous for the 3 laws of motion



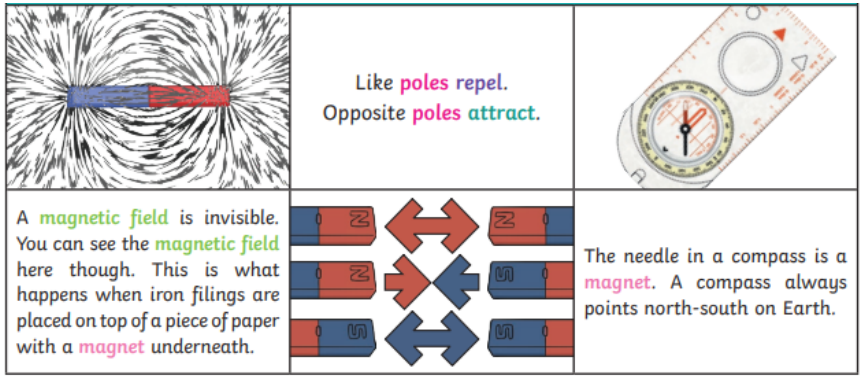
Key Knowledge

Different surfaces create different amounts of friction. The amount of friction created by an object moving over a surface depends on the roughness of the surface and the object, and the force between them.





Forces will change the motion of an object.
They will either make it start to move, speed up, slow it down or even make it stop.



I will be able to

- Compare how things move on different surfaces
- Notice that some forces need contact between 2 objects but magnetic forces can work at a distance
- See how magnets can attract and repel each other and some materials but not others
- Group materials based on whether they are attracted to a magnet
- Describe magnets as having 2 poles

Investigation

Investigate if all magnets have the same magnetic strength

- How can I test the strength of different magnets?
- Can I test fairly?
- How will I know if a magnet is stronger?