

Things you already know

- You know how objects move on different surfaces
- You know that some forces need contact between two objects, but magnetic forces can act at a distance
- You know some magnetic materials
- You know magnets have two different poles



Skills you already have

- You can observe how magnets attract or repel each other and attract some materials and not others
- You can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet
- You can predict whether two magnets will attract or repel each other

Key Vocabulary

water resistance	a force that uses friction to slow things down that are moving through water
friction	the resistance that one surface or object encounters when moving over another.
gravity	the force that attracts objects towards the centre of the earth
air resistance	a type of friction between air and another material.
newtons	the unit that force is measured in
pulleys	a pulley is a wheel with a grooved rim in which a rope, chain, or belt can run in order to change the direction of a force
gears	a gear is a machine part that connects with another machine part to enact motion or to change speed or direction

New Science Knowledge

- You will know that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- You will know the effects of air resistance, water resistance and friction, that act between moving surfaces
- You will know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect



New Science Skills

- You will be able to carry out fair tests to determine which designs are the most effective; when exploring different forces and their effects
- You will be able to draw upon your findings to answer scientific questions posed before an investigation