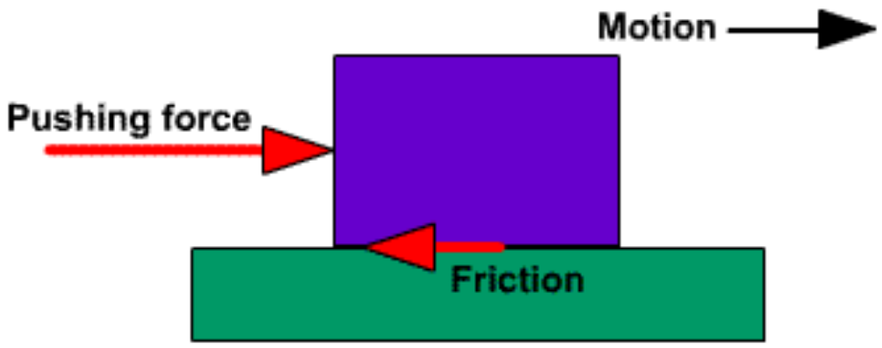
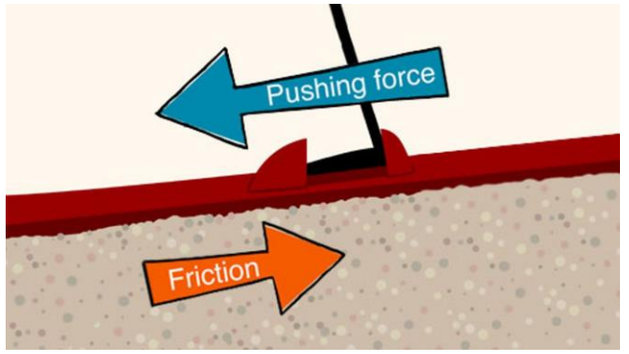
Marshlands Primary School Knowledge Organiser	Fantastic Friction & Marvellous Magnets	Lower Key Stage 2

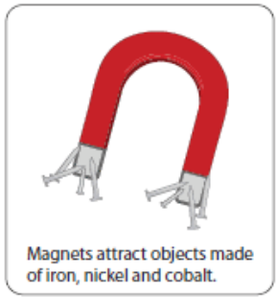
By the end of the unit, pupils will be able to answer…

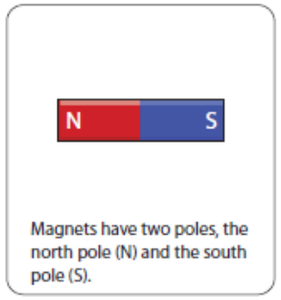
- Why do things move differently on different surfaces?
- How can you tell if an object is magnetic?
- How do magnets react to one another?

Vocabulary	Definition
attract	to cause something to move towards it
contact force	forces that act when two or more objects touch each other (eg friction)
force	the pushing or pulling effect that something has on something else
friction	the resistance of motion when there is contact between two surfaces
magnet	a piece of iron or other material which attracts magnetic materials towards it
magnetic	an object that is attracted to a magnet
magnetic poles	the ends of a magnet where the force is the strongest
non-magnetic	an object that is not attracted to a magnet
non-contact force	forces that can act at a distance (eg magnetic force)
repel	to cause something to move away from it

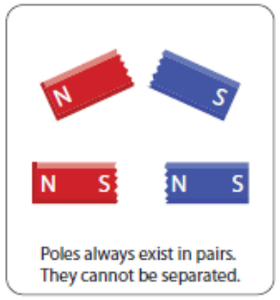




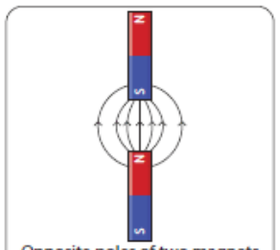

Magnets attract objects made of iron, nickel and cobalt.

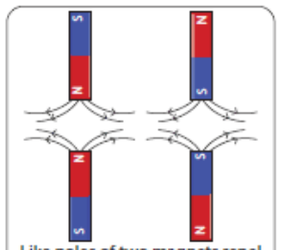


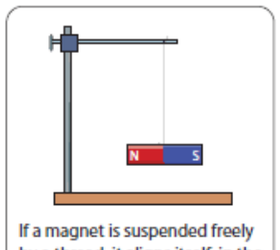
Magnets have two poles, the north pole (N) and the south pole (S).

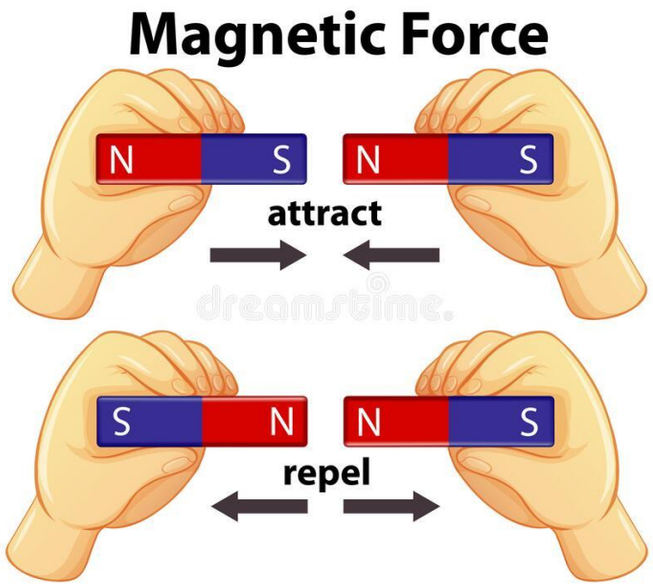


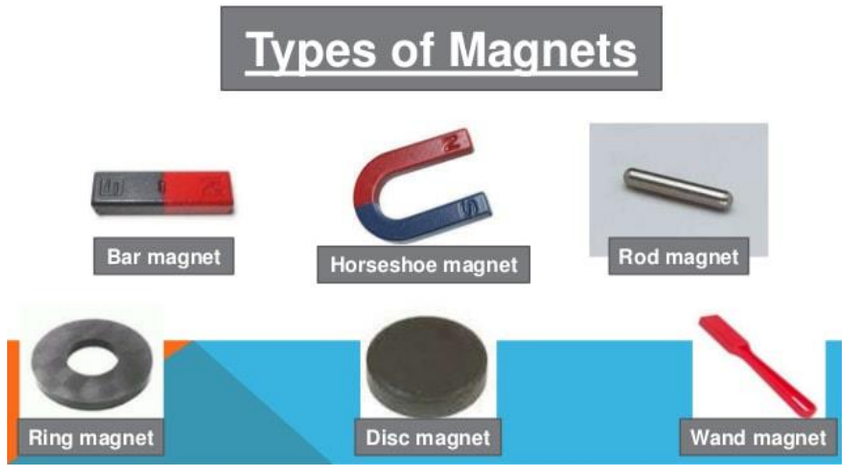
Poles always exist in pairs. They cannot be separated.

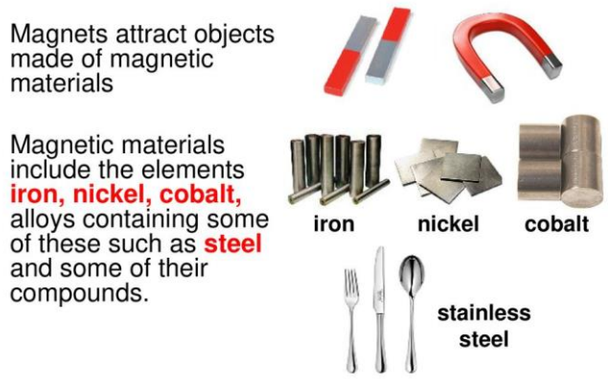

Opposite poles of two magnets attract each other.


Like poles of two magnets repel each other.


If a magnet is suspended freely by a thread, it aligns itself in the north-south direction.







Investigate!

- Investigate how objects move on different surfaces (eg spinning tops/coins, rolling balls/cars, clockwork toys, soles of shoes)
- Explore what materials are attracted to magnets and classify them
- Observe how magnets behave in relation to one another
- Use a marked magnet to identify poles on unmarked magnets
- Explore how magnets work at a distance (eg through tables, in water)
- Devise an investigation to test the strength of different magnets