

Prior knowledge/key knowledge	
Prior knowledge Year3/4	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
Key knowledge for Y3/4	
Notice that some forces need contact between two objects, but magnetic forces can act at a distance	
Compare how things move on different surfaces	
Observe how magnets attract or repel each other and attract some materials and not others	
Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials	
Describe magnets as having two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing.	

Science Knowledge Organiser

Year: 3/4 Term: Autumn

Topic: Forces & Magnets

Vocabulary	
Forces	Pushes, pulls, twists
Friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
magnet	An object which produces a magnetic force that pulls certain objects towards it.
magnetic	Objects which are attracted to a magnet are magnetic. Objects containing iron, nickel or cobalt metals are magnetic.
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.
Attract	Attraction is a force that pulls objects together.

Key skills /investigative focus	
	Investigative focus
Key Skills	
<ul style="list-style-type: none"> Ask questions and carrying out tests to find out how far things move on different surfaces Make systematic and careful observations Record findings using simple scientific language. Reporting on findings from enquiries, including presentations of results and conclusions Explore the strengths of different magnets and finding a fair way to compare them Classify materials according to whether or not they are magnetic Identifying how magnets are useful in everyday items and suggest creative uses for different magnets. 	

Big Questions/Challenging Perceptions

Give it a pull [Give it a pull - Explorify](#) (Odd One Out)

Have you ever used a magnet?

What if you had magnets for fingers?

What's going on? (Mighty Magnets) [Mighty magnets - Explorify](#)

