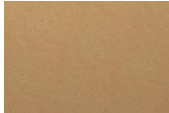
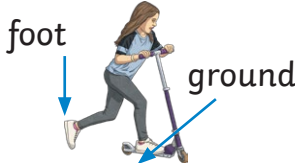
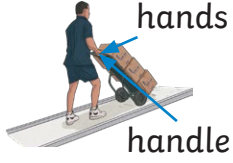
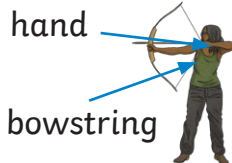
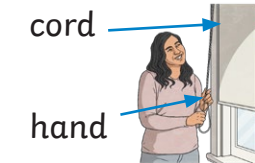
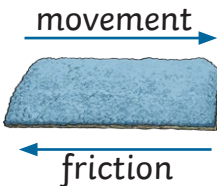
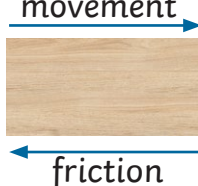


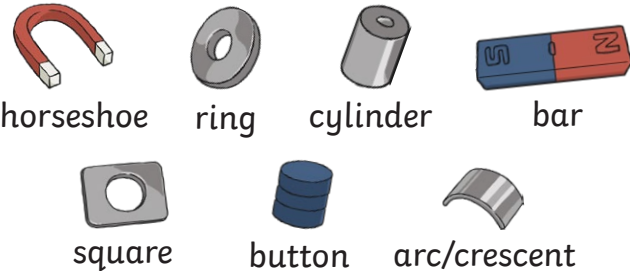
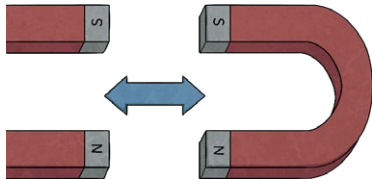
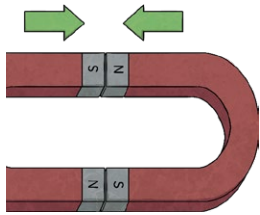
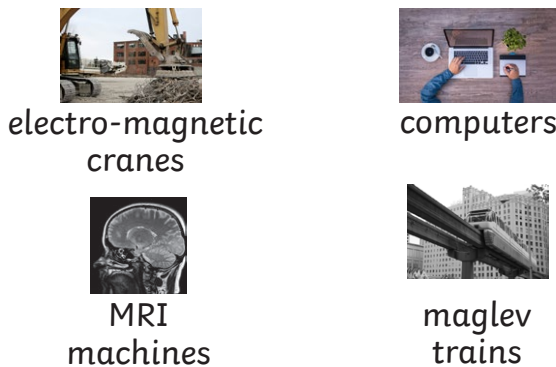
Key Vocabulary	
force	A force is a push or pull .
push	A push is a force that often moves an object further away.
pull	A pull is a force that often moves an object closer.
contact force	A contact force is a type of force that occurs between two or more objects that are touching.
non-contact force	A non-contact force is a type of force that occurs between objects that are not touching.
friction	Friction is a type of contact force . It occurs between two touching surfaces that are either trying to move or are already moving across each other.

Smooth		Rough	
			
polished marble	laminate floor	artificial grass	sandpaper

Contact Forces: Examples of Pushes and Pulls			
Pushes		Pulls	
 The foot pushes against the ground, causing the scooter to move forwards.	 The hands push on the trolley handle, causing the trolley to move forwards.	 The hand pulls on the bowstring and arrow, causing the arrow to move closer to the person.	 The hand pulls on the cord, causing the blind to lift up.

Forces can make objects start or stop moving, change speed, change direction or change shape.

Moving on Rough Surfaces	Moving on Smooth Surfaces	Helpful Friction
Objects move differently on different surfaces because of a force called friction. Friction can be high on rough surfaces, causing objects to slow down more quickly. 	An object will travel further on a smooth surface because there are fewer bumps; therefore, there is less friction to slow it down. 	Bumpy surfaces, such as tyres or the soles of shoes, help to reduce the risk of sliding or skidding. 

Key Vocabulary		Magnetic Materials	Non-Magnetic Materials
magnet	A magnet is a material that can sometimes attract (pull) and sometimes repel (push) other magnetic materials.		
metal	Metals are materials that are usually hard and shiny, such as iron and aluminium.	Magnetic objects are most often made of iron , steel (which contains iron), nickel and cobalt .	Plastic, wood, rubber and wool are not magnetic . Some metals, such as aluminium, are not magnetic.
magnetic	If a material is magnetic , it can be attracted or repelled by a magnet .	Names of Magnets	
magnetic force	A magnetic force is a non-contact force produced by a magnet .		
poles	The poles of a magnet are the two points where the magnetic force is strongest: the north pole and south pole.	Like Poles Repel	
attract	If a magnet attracts an object, it causes the object to move towards it.		
repel	If a magnet repels an object, it causes the object to move away from it.	Opposite Poles Attract	
			
		Uses of Magnets	
			
		A magnetic force is a non-contact force because the magnet and the object do not need to touch for the force to happen.	