Knowledge organiser for Year 3 Science Topic: Forces - Magnets

Key Ideas:

- 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 and identify magnetic materials
- Describe magnets as having two poles
- Notice how some forces need contact between two objects, but magnetic forces can act at a distance

Key Vocabulary:	
Force	A push or pull on an object in a particular direction
Friction	A force that stops or slows a moving object
Magnets	A material or object that creates a magnetic field and attracts objects made of metal such as iron
Magnetic poles	The two ends of the magnet that may look the same but they don't do the same things. These poles are called a North Pole and a South Pole, just the same as the earth
Magnetic field	Is the area around the two poles and it is invisible
Magnetic forces	When two magnets are close, they create pushing or pulling forces on one another.
Repel	When two magnets with the same poles are pointing towards one another, the magnets will push away from each other, which means they repel each other S N
Attract	When two magnets with the opposite poles are pointing towards one another, the magnets will pull towards each other, which means they attract each other N S N S
Gravity	The force that pulls things to the ground on Earth (and other planets) is called gravity.

Facts about magnets

- The Earth is a very big magnet. Its North and South poles are highly magnetic
- If a bar magnet is attached to a piece of wood and this is then floated in a bowl of water, it will slowly turn and the magnet's North Pole will point towards the Earth's North Pole.
- Magnets are used every day all over the world.
- Most fridge magnets use ferrite magnets to keep them attached to the Fridge.
- The Earth's magnetic force is not very strong. The magnets which are put on a fridge have stronger magnetic force.
- A compass has a tiny magnet in it. The arrow in the compass always point to the North Pole.