FORCES AND MAGNETS KNOWLEDGE ORGANISER

Vocabulary	
forces	A push or pull that makes something move. Forces are shown by arrows in diagrams.
push	A push is a force that moves an object away from something.
pull	A force that brings an object towards something.
friction	Friction is a force between two surfaces as they move across each other. Friction acts in the opposite direction to the movement. Friction always slows down a moving object. It also produces heat.
surface	The size of a frictional force depends on the materials both surfaces are made from. The rougher the materials, the larger the frictional force. The smoother the materials, the smaller the frictional force.
contact force	Usually you need to be touching (in contact with) an object to make it move. Contact forces involve friction.
non- contact force	Non-contact forces exert a push or a pull but have no direct contact with the objects they affect. We cannot see non-contact forces, but we can feel them.
magnetic force	Pushes and pulls from magnets. Magnetic force is an example of a non-contact force.
poles	Magnets have two ends called poles. The red end is the north pole and the blue end is the south pole.
attract	When magnets pull towards one another, they attract.
repel	When magnets push away from one another, they repel.
magnetic material	Material attracted to magnets contains iron. Some metals are magnetic, but not all.

Forces and Magnets (Hedgehogs - Spring Term)

Previous Learning:

In KS1, pupils learnt about the properties of some materials, including that squashing and twisting some solids could change their shape. Pupils have already had many opportunities to practise working scientifically and performing simple tests.

Intended Learning:

Pupils will explore, talk about, test and develop their ideas about how things move on different surfaces. They will record their findings using simple charts. They will notice that some forces need contact between two objects, but magnetic forces can act at a distance, describe magnets as having two poles, and be able to predict whether magnets will attract or repel each other. Pupils will be able to classify materials depending on whether they will be attracted to a magnet, and name some magnetic materials.

Essential Reads