

ALDER COPPICE PRIMARY SCHOOL – KNOWLEDGE ORGANISER

Subject: Science

Year: 3

Unit 4: Forces

Links to: Y2 Materials

What I Should Already Know:

- That materials are substances which are given a name (Y1)
- The name of some objects and the material they are made from (Y2)

Skills and Enquiry:

- I can identify forces around me
- I can identify which surfaces things will travel faster or slower on.
- I understand how magnets behave.
- I can identify magnetic and non-magnetic materials.

What I should know by the end of this Unit:

- That forces are pushes and pulls
- That things occur because of contact forces, but some forces such as magnetism and gravity are non-contact forces.
- Know that magnets have two poles
- According to how the poles are placed, two magnets will either attract or repel each other.
- Which materials are magnetic or non-magnetic

Unit Specific Vocabulary:

attract – to pull towards

compass – a device for finding directions that uses a needle which points to magnetic North.

contact force – forces that act when two or more objects touch each other i.e. friction

force – a push or a pull

friction – the contact force that happens when two objects touch each other

magnetic field – the area around a magnet in which there is magnetic force

magnetic – if something is attracted to a magnet it is said to be magnetic





non-contact force – forces that act at a distance and do not need contact

pole – the end of a magnet where the magnetic force is strongest

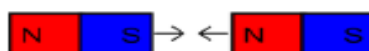
repel – to push backwards

Key Facts:

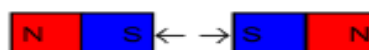
Magnetic Materials

Iron	Nickel	Steel	Stainless steel
			

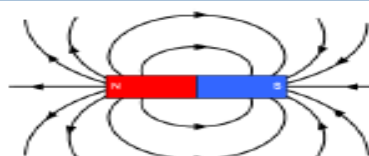
Magnets



Opposite poles **attract**



Same poles **repel**



Magnetic Field



Compass

Forces can make things.....

Change shape



Change speed



Change direction



Friction

It is easier to pull or push things along smooth surfaces than rough ones

