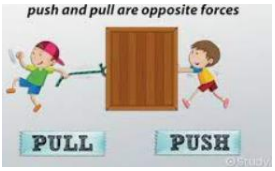
Jerry Clay Academy
Subject Unit Overview



Subject: Science (Forces and magnets) Year Group: 3 Term: Spring 1

Core Learning of This Unit:

- To know how magnets work
- To know magnets can differ in shape and size and some of the different uses for them.
- The children will get to explore how the south and north pole differ on a magnet and investigate what repel and attract means.
- The children will get to set up their own experiment to find out about friction by using e.g toy cars and different surfaces for them to travel on.

Prior Learning:

Children may have some knowledge about forces and magnets from exploration through everyday items.

National Curriculum Statements:

Pupils should be taught to:

- compare how things move on different surfaces
- notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
- 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 2 poles
- predict whether 2 magnets will attract or repel each other, depending on which poles are facing

Key Vocabulary:

- **force** – a push or a pull. A force makes an object move, change direction or stop.
- **friction**-a force that acts between two surfaces or objects that are moving.
- **gravity** – a force that pulls objects together.
- **surface**-the top layer of something.
- **magnet**-an object which produces a magnetic force which pulls certain objects towards it. **(horseshoe, bar, ring, marble, wand)**
- **magnetic-**objects which are attracted to a magnet.
- **non-magnetic-**objects which are not attracted to a magnet.
- **magnetic field** – the area around a magnet where there is a magnetic force.
- **attract** – is what a magnet does when it pulls something towards it.
- **repel** – (the opposite of attract) when a magnet pushes another magnet away.
- **poles** – are the two ends of a magnet, named 'north pole' and 'south pole'.

Significant People

Sir Isaac Newton developed the theory of gravity, the laws of motion (which became the basis for physics), a new type of mathematics called calculus, and made breakthroughs in the area of optics such as the reflecting telescope.