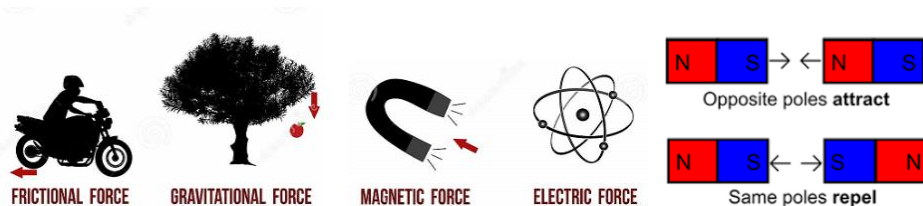


## Y3/4 Science: Forces and Magnets



## Why are we learning about Forces and Magnets?

We are **building on all our previous learning** about materials in KS1: names, properties, and uses of everyday materials.

This **new learning is important because** it will help us to understand why things move or stay still in our everyday lives. As magnets are present in most of our electronic devices, this learning helps us to develop our understanding of how things we rely on work and develop an appreciation for, and curiosity about, the roles of physics in explaining the world around us.

This **will help us get ready for future learning** about gravity, resistance (air and water), friction and mechanisms including levers. It will also be relevant in a wide range of jobs in the areas of Science and engineering.

## Important questions to answer:

- How do things move?
- How do different surfaces affect the movement of an object?
- Are magnets all the same strength?
- Which materials are magnetic?
- What do the letters N and S stand for on a magnet?
- Why do magnets attract or repel?

## Experiences we will have:

- Toy car investigation
- Magnet strength investigation
- Create a magnetic compass

## Things we need to know:

- To know that some forces need contact between two objects but others can act at a distance
- To know different surfaces can affect how things move
- To know that some materials have a stronger magnetic attraction to objects
- To know that magnets attract some metals and not others
- To know that magnets have two poles: North and South
- To know that opposite poles of magnets are attracted to each other, and same poles repel each other

## Skills we need to learn:

- I can identify forces as pushes and pulls
- I can investigate how different surfaces affect the movement of an object
- I can compare the strengths of different magnets
- I can predict which materials we think will be magnetic
- I can explain how a compass works
- I can apply my understanding of attraction and repulsion

## Subject Specific Vocabulary:

attract	investigate	pull
compass	magnet(ism)	push
contact	magnetic field	repel
force	metal	South pole
friction	North pole	surface

