

### What are we learning about?

In this topic we are going to look at magnets and electromagnets, as well as the effects that electromagnetism has on movement and electricity. We will link all of this back to previous topics, including energy, electricity and forces.



### Why are we learning about it?

Magnets might seem childish, but they are used in thousands of ways. Electromagnets even more so. Furthermore, the effects of electromagnetism are responsible for the production of electricity, and for motors that power movement across the world.



### What new KNOWLEDGE will I gain?

Magnetic poles and fields, permanent and induced magnets, electromagnets, the motor effects, uses of electric motors and electromagnetism, the generator effect and transformers.



## Electromagnets: Learning Journey

### How does this build on the SKILLS I already have?

You can already use and rearrange equations – this topic will give you the opportunity to practice and build on this. You have also spent lots of time learning how to write a scientific method, which you will get a chance to refine during this topic.



### What new SKILLS will I develop?

You will be able to describe and write the method for a new practical, and use data to calculate forces caused by electromagnetism. This will include continuing your practice with rearranging equations.



### How does this build on the KNOWLEDGE I already have?

In KS3 you learnt about simple electromagnets, and now we take those ideas and show how they apply to the world, and how you can calculate and determine the effects that electromagnetism has on the surroundings.