Energy: Learning Journey

What are we learning about?

In this topic we are going to look at energy – the idea behind how everything works! There are lots of different ways that energy can be stored and transferred, and lots of ways of calculating how much energy something is storing.

Why are we learning about it?

Nothing works without energy. The ideas in this topic explain how your phone works, why exercise is good for you, why your car needs petrol and how plants grow.

What new **KNOWLEDGE** will I gain?

Five main stores of energy – kinetic, gravitational, thermal, elastic and chemical, as well as their equations. Efficiency and power are two different calculations linked to energy, and we finish looking at power stations and how they work.

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

In KS3 you learnt about the basics of energy and what they do. Now we can calculate actual values! You will also have looked at how much electricity costs to use, and now we find out why, and how it is generated in the first place.

What new **SKILLS** will I develop?

There are a lot of maths skills in this topic, from simple multiplication up to rearranging equations. By the end of this topic you will have the skills to do all of them, helping you in science and in maths. You will also be writing methods for practicals, improving your English skills!

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

You can already use basic maths functions – 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.