

### What are we learning about?

In this topic we are going to look at energy changes in a chemical reaction. We will be looking at how bonds break and new bonds are formed during a reaction and the changes in energy involved with this. You will also be learning about chemical cells and fuel cells



### Why are we learning about it?

Chemists need to understand how much energy is required to break the bonds between elements in substances to allow them to react to form new products. They also need to understand the energy changes and pathways the chemical reactions take.



### What new KNOWLEDGE will I gain?

You will learn how energy is required to break bonds in reactants and energy is released when new bonds are formed in the products of a chemical reaction. You will learn new words to describe these energy changes and draw reaction profiles to describe the energy changes during a reaction. You will also be able to calculate energy changes in a reaction



## C5 Energy Changes: Learning Journey

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

This module includes a required practical which will build on your practical skills, in particular describing methods and analysing and evaluating results. You will be required to use your maths skills to calculate energy changes using addition and subtraction calculations.



### What new SKILLS will I develop?

You will learn how to draw reaction profiles for exothermic and endothermic reactions. You will be able to describe the energy changes in a reaction using key definitions confidently.



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

In KS3 you will have looked at how reactants undergo a chemical reaction to form products. You will also have been introduced to the terms Exothermic and Endothermic. This module will build on these terms and look at them in detail to have a greater understanding of them.