

AIMS

After completing this lesson you will know:

- heating sulphur and iron forms a new substance iron sulphide.
- Iron sulphide is a compound.
- The new substance iron sulphide has different properties from the reactants sulphur and iron.
- The word equation for heating iron and sulphur.

Recap

Using our cartoons we separated a mixture of iron and sulphur using a magnet.

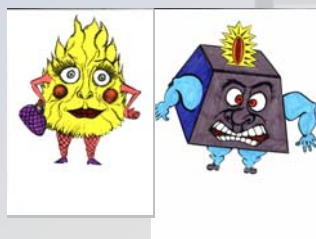
Now, we are going to heat the mixture using our cartoons.



Safety: Your teacher can demonstrate heating iron and sulphur using a fume cupboard or provide you with the compound iron sulphide to test.

When the elements are heated they hold hands. This how we are going to show a **chemical bond**. They are a new substance so they look different.

We have made them hold hands to show that a chemical bond has taken place.



The new substance is called **iron sulphide**. It is a **compound**.

Let's investigate!

Can you separate the elements of iron sulphide?

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We can write the reaction as a word equation.

iron + sulphur **→** **iron sulphide**

Next to the word equation

Label the **elements** and **compound** **above** the words.

Label the **reactants** and the **products** **underneath** the words.