**Iron Rusting**

Iron is a very useful metal, however, it is highly likely to rust if not protected.

Iron will only rust if it is in contact with both oxygen and water.

Word equation –

Iron + oxygen + water 🡪 hydrated iron (III) oxide

**Preventing rusting**

There are 3 main ways to prevent rusting

1. Barrier methods



1. Galvanising



1. Sacrificial protection



**Oxidation and Reduction**

In many reactions both oxidation and reduction occur. These reactions are called redox reactions.

Oxidation



Reduction



Oxidising agent



Reducing agent



E.g. 2Fe2O3 + 3C 🡪 4Fe + 3CO2

