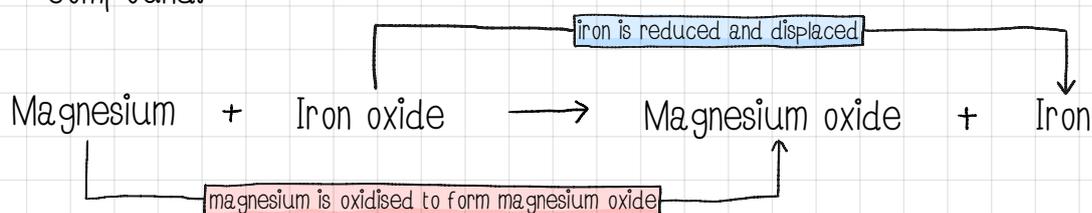


Oxidation and reduction in terms of electrons

Review

- ⊙ A **more reactive** element will **displace** a **less reactive** element from its compound.



- ⊙ The magnesium atoms have been **oxidised** because they have **gained oxygen**. The iron atoms have been reduced because they have lost oxygen.

Oxidation and reduction in terms of electrons

- ⊙ As well as being defined by the loss or gain of oxygen, oxidation and reduction can be defined by the loss or gain of electrons.

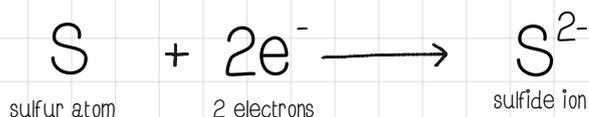
- ⊙ **Oxidation** is the **loss** of **electrons**.

- ⊙ **Reduction** is the **gain** of **electrons**.



This type of equation is called a half equation. It only shows one part of the reaction.

- ⊙ In this example the magnesium has been **oxidised** as it has **lost electrons**.



- ⊙ In this example the sulfur atom has been **reduced** as it **gained electrons**.

- ⊙ Use the phrase OIL RIG to help remember the rules about electrons.
Oxidation **I**s **L**oss. **R**eduction **I**s **G**ain.

- ⊙ Use the periodic table to work out the ion formed. Group 1, 2 and 3 elements will form 1^+ , 2^+ and 3^+ ions respectively. Group 5, 6 and 7 will form 3^- , 2^- and 1^- ions respectively.

