

# **Electrochemistry**

## **Oxidation Numbers**

- oxidation number is a number that tells the electrons in an atom or ion
- a loss of electrons is represented by a positive oxidation number
- a gain of electrons is represented by a negative oxidation number
- The total oxidation state of a neutral compound is zero
- The total change in oxidation state in a reaction is equal

## **Redox**

- Reduction is the gain of electrons or loss of oxidation state
- Oxidation is the loss of electrons or gain of oxidation state
- Reactions in which reduction and oxidation take place are known as redox
- A substance that oxidises another substance and reduces itself is known as an oxidising agent
- A reducing agent is a substance that reduces another substances and oxidises itself
- A redox reaction must have both a reducing and oxidising agent

## **Disproportionation reaction**

- A reaction in which one substance is both oxidised and reduced