

Modelling Electrolysis: the electron shuffle

Today you are going to use your knowledge of electrolysis to build a moving model to help you **understand** the electrolysis of **sodium chloride**.

Task:

You are going to create a model to show what happens when you melt NaCl and pass electricity through it.

You will need to show what happens to the ions at each electrode and show the products formed

To help, you have been given a piece of A3 paper as a template and a range of different resources to use.

Key words: cathode, anode, electrolyte, molten, electron

To get Grade	You will need to use your model to
F	<ul style="list-style-type: none">• Label the main parts of the electrolysis diagram on the A3 sheet □• Show the electrons moving around the wires □
D	<ul style="list-style-type: none">• Show the Na⁺ and Cl⁻ ions separating and moving after sodium chloride has been melted □
C	<ul style="list-style-type: none">• Show what is happening to the Cl⁻ ions at the anode □• Show what is happening to the Na⁺ at the cathode □• Show what is formed at the cathode and where it goes □• Show what is formed at the anode and where it goes □• Identify what reaction (reduction or oxidation) happens at the cathode □• Identify what reaction (reduction or oxidation) happens at the anode □
B	<ul style="list-style-type: none">• Use your model to show why NaCl(s) does not conduct electricity □