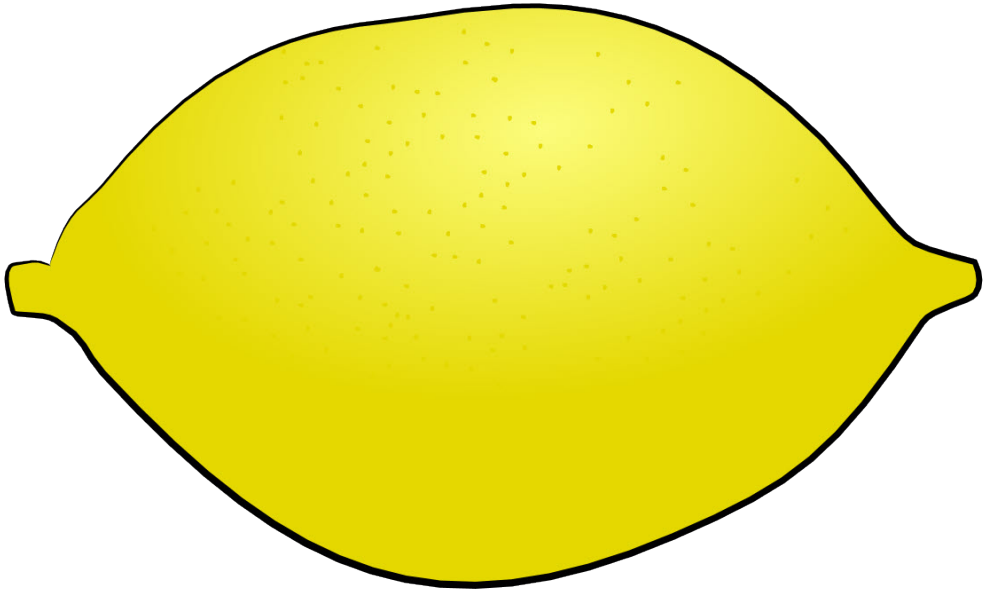
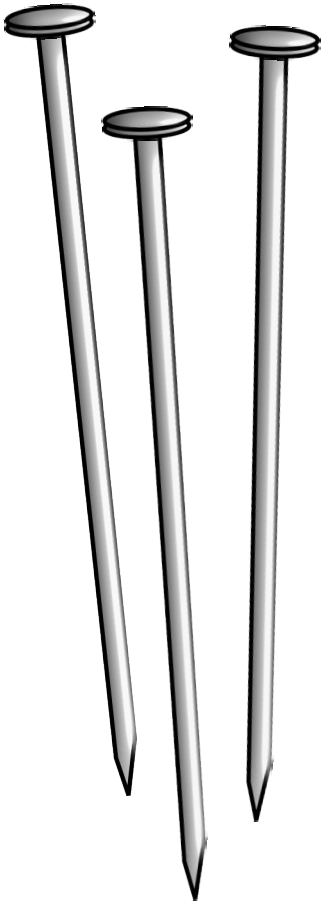
Creating a lemon battery

Items required:



One or more large fresh lemons



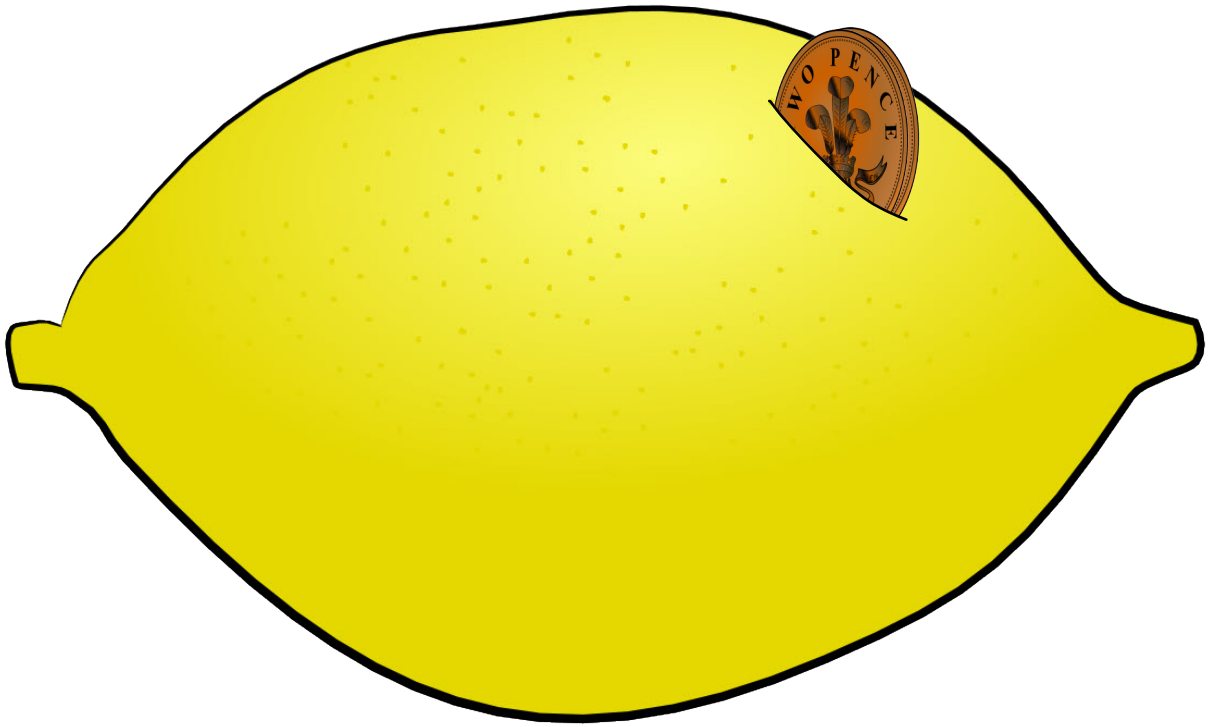
Galvanised
zinc-coated nails

Some copper coins

Creating a lemon battery

Step 1

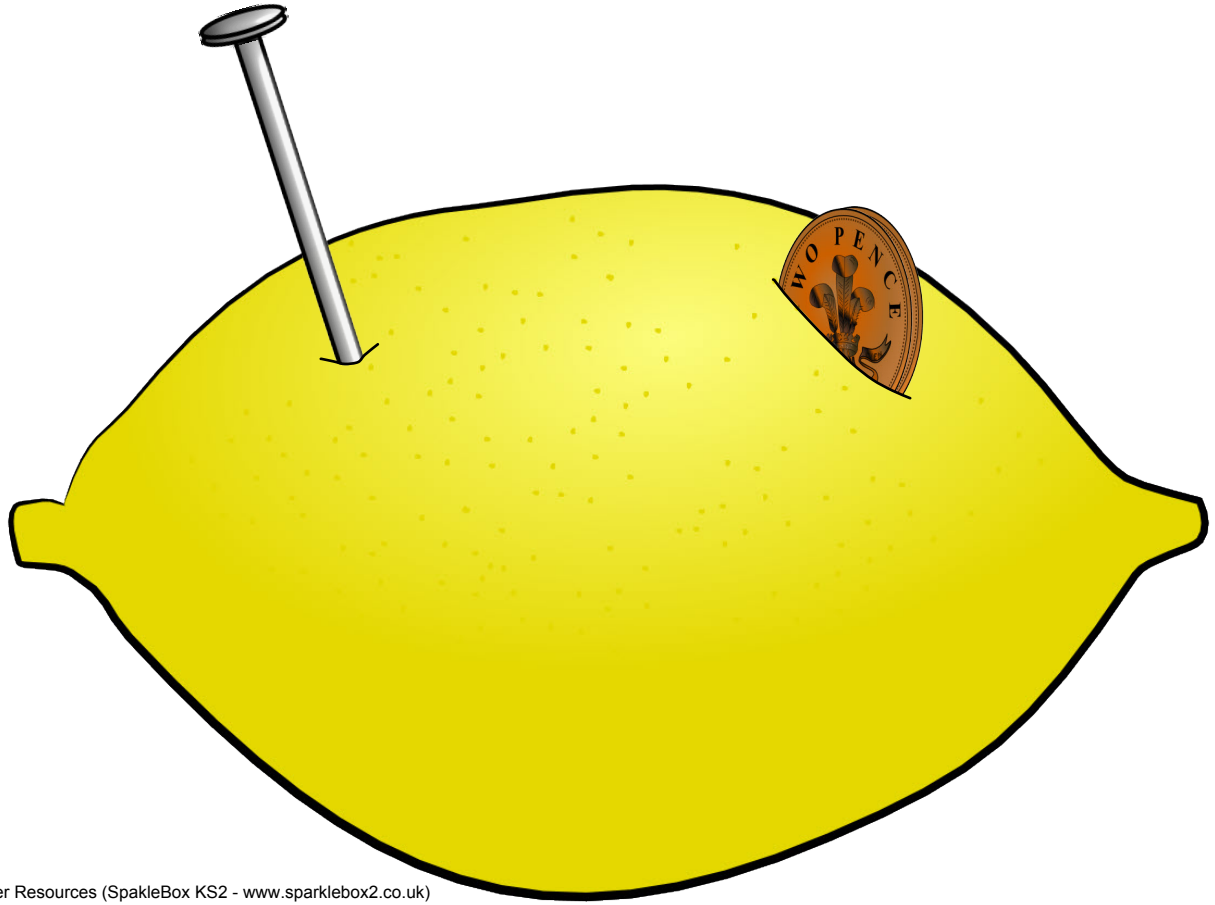
Insert a coin into one side of the lemon.



Creating a lemon battery

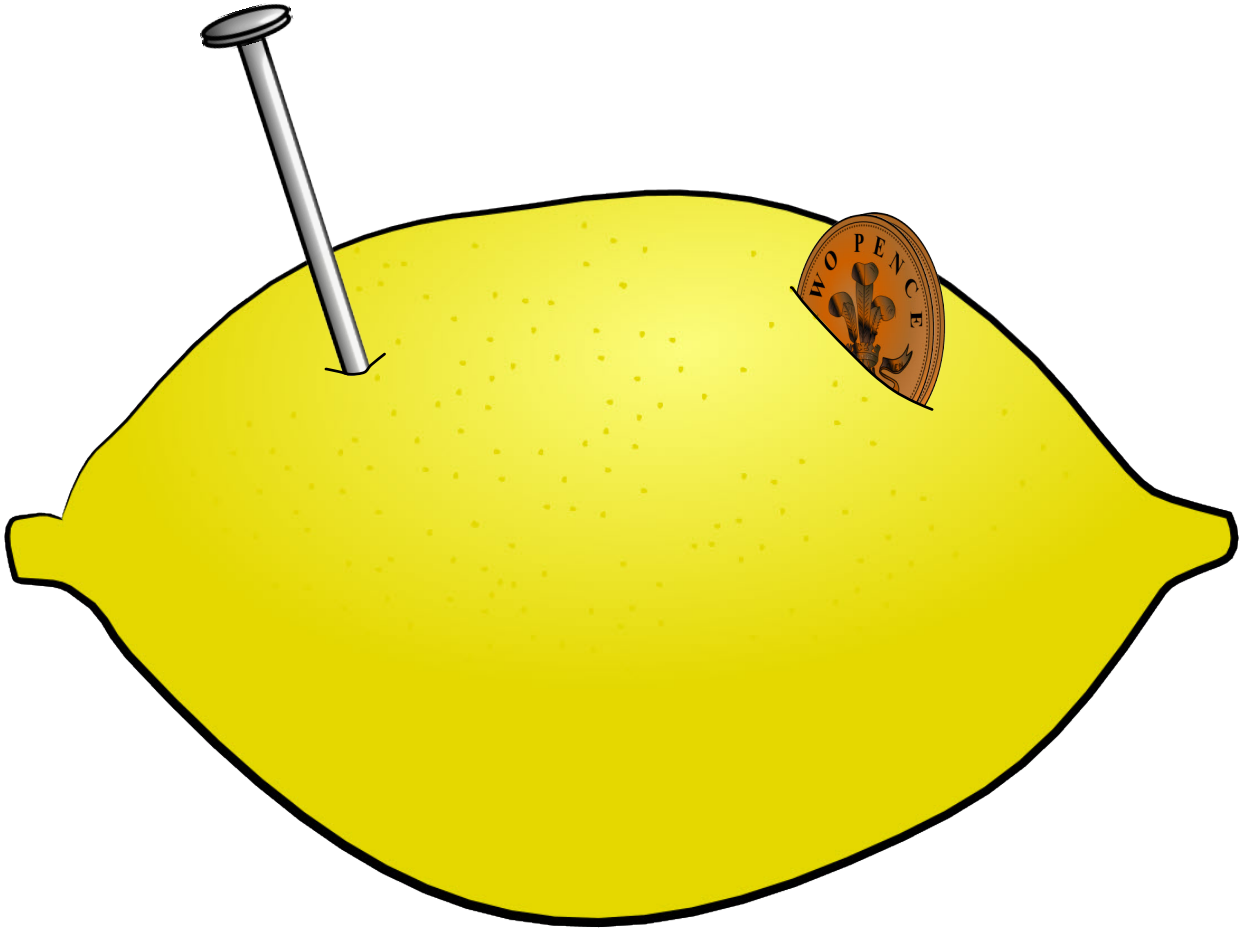
Step 2

Push one of the nails into the other side of the lemon.
Make sure that the coin and nail **do not touch**.



Creating a lemon battery

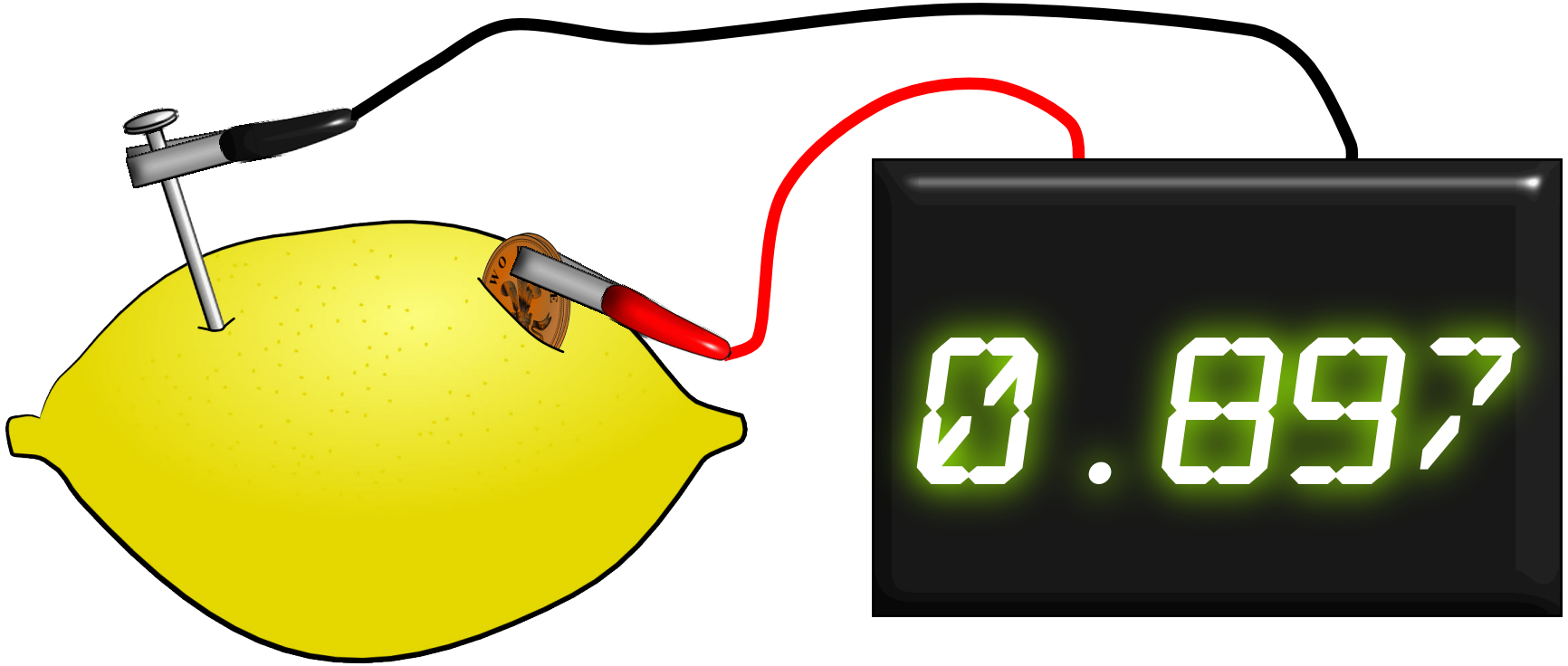
This is one single battery cell.
The copper coin and zinc nail act as electrodes and the juice in the lemon is the electrolyte.



Creating a lemon battery

Step 3

You can check that the lemon battery cell is producing a voltage by connecting a volt meter to the electrodes.



Creating a lemon battery

Step 4

To power a small bulb, you will need to create more battery cells. You can connect them together to create a higher voltage and current.