

## Lemon Batteries

In this experiment we will use a lemon to make a simple battery

You will need:

A lemon, Zinc and copper nails, a voltmeter



Directions:

Use the zinc and copper nails to pierce the skin of the lemon

Touch the probes of the voltmeter to the metals to find the voltage being produced by your lemon battery

What is happening?

An electrochemical reaction is taking place between the copper and the zinc electrodes, using the lemon juice as an electrolyte

Zinc metal is being oxidised according to the following reaction:



At the copper electrode a reduction is happening; two electrons from the electrical circuit combine with hydrogen ions from the fruit juice (very tiny amounts of hydrogen gas are produced):

