

Preparation for A Level Electronics

There is a considerable amount of preparation that can be done prior to you starting your A Level Electronics course in order to give yourself the best chance of understanding the subject better and enhancing your grade.

A Level Electronics is studied under the WJEC EDUQAS Awarding Body, so that could be your first point of call to get an idea of what is involved. However, examination body websites can be a little daunting, so below you will find some help and information which should make it a little easier for you.

First things:-

Try to find your notes and documents, including textbooks from GCSE Physics, or the Physics parts of your GCSE Combined Science.

Now whether you studied GCSE Combined Science or GCSE Physics, you will have looked at current electricity, so find what you have about that.

What do you know about electrical charges?

What happens when two positive charges are brought together?

What about two negative charges coming together?

Remember like charges repel and opposite charges attract.

What can you remember about circuit basics?

What is it necessary to see in a circuit diagram?

Have a look at the table on the next page and see what components you can fill in from memory. Then have a look in your GCSE notes. If you are unable to complete from your memory or notes, then have a look on the internet.

Can you explain the difference between current and potential difference?

How are they related? Resistance

Does Ohm's Law ring a bell?

Describe the following components:-

Diodes LEDs

LDRs Thermistors

What do you understand of series circuits?

What do you understand of parallel circuits?

Can you remember the main circuit symbols from GCSE?

Using your prior knowledge draw the appropriate symbol for the circuit components below. You will see all of these in your A Level Electronics work.:

Also make sure that you understand what each component does. Write a short paragraph describing the component and it's function.

A cell or battery, to push current round a circuit.	
A switch, allowing the current in a circuit to be switched off or on.	
A light bulb	
A diode, which allows current to flow in only one direction	
A light emitting diode, which emits light when a current passes through it	
A fixed resistor, which limits the current which flows through it.	
A light dependant resistor, where the resistance varies depending on the light falling on it.	
A Thermistor, where the resistance varies depending on the temperature.	
A variable resistor, which can be varied to control the current flowing through a circuit	
A fuse, which breaks when the current is greater than a certain level.	
An Ammeter, which is used to measure electrical current.	
A Voltmeter, which is used to measure potential difference/voltage.	