



## Eduqas Physics – Component 2

### Module 1: Conduction of Electricity

This topic covers the basic ideas of electric charge and electric current. The nature of charge carriers in conductors is explored.

You should be able to demonstrate and show your understanding of:	Progress and understanding:			
	1	2	3	4
The fact that the unit of charge is the coulomb (C), and an electron's charge, $e$ , is a very small fraction of a coulomb				
The fact that charge can flow through certain materials, called conductors				
Electric current being the rate of flow of charge				
The use of the equation $I = \frac{\Delta Q}{\Delta t}$				
Current being measured in ampères (A), where $A = C s^{-1}$				
The mechanism of conduction in metals as the drift of free electrons				
The derivation and use of the equation $I = nAve$ for free electrons				

