

AQA Trilogy Physics Paper 1		Covered in Lesson	Diagnosis			Revised		
P4.2. Electricity			R	A	G	1	2	3
4.2.1 Current, potential difference and resistance	Draw and interpret circuit diagrams, including all common circuit symbols							
	Define electric current as the rate of flow of electrical charge around a closed circuit							
	Calculate charge and current by recalling and applying the formula: [$Q = It$]							
	Explain that current is caused by a source of potential difference and it has the same value at any point in a single closed loop of a circuit							
	Describe and apply the idea that the greater the resistance of a component, the smaller the current for a given potential difference (p.d.) across the component							
	Calculate current, potential difference or resistance by recalling and applying the equation: [$V = IR$]							
	Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits							
	Define an ohmic conductor							
	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour							
	Explain how to measure the resistance of a component by drawing an appropriate circuit diagram using correct circuit symbols							
Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements								
4.2.2 Series and parallel circuits	Show by calculation and explanation that components in series have the same current passing through them							
	Show by calculation and explanation that components connected in parallel have the same the potential difference across each of them							
	Calculate the total resistance of two components in series as the sum of the resistance of each component using the equation: [$R_{\text{total}} = R_1 + R_2$]							
	Explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance							
	Solve problems for circuits which include resistors in series using the concept of equivalent resistance							

