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SINCERITAS LABORIS

YEAR 9 CURRICULUM INFORMATION – Physics		
	Summer 1	Summer 2
What will students be learning?	**Electric Circuits** • Electrical Charges and Fields • Current and Charge • Potential Difference and Resistance • Required Practical: Factors affecting resistance • Component Characteristics • Required Practical: Electrical component characteristics	**Electric Circuits** • Series Circuits • Parallel Circuits • Revision **End of Year Exam**
How will students be assessed?	1. Milestone test at the end of the topic 2. In-class formative review each lesson 3. Required practical: Factors affecting electrical resistance 4. Required Practical: Electrical component characteristics	1. Milestone test at the end of the topic 2. In-class formative review each lesson 3. End of year examination
Literacy – What keywords will be taught?	Charge, electron, current, circuit, volts, amps, coulombs, conduction, conductor, insulator, electric field, radial, potential difference, ammeter, voltmeter, resistance, collision, diameter, component, diode, filament, resistor, ohmic, gradient, Ohm's law, thermistor, light dependent resistor, light emitting diode, variable resistor	Series, parallel, branch, circuit, loop, potential difference, current
What employability skills are being developed?	• Teamwork (working together in multiple lab practicals to achieve high precision results) • Problem solving (deciding on range of values to be used in practicals by undertaking preliminary investigations) • Numeracy (calculation of resistances using Ohm's law and data analysis / plotting graphs of results gained through practical experimentation)	• Problem solving (Especially the sort needed in civil engineering, waste management, electrical engineering, hydrologist, ventilation engineer, drainage engineering, etc. where there is a flowing product that can either take single / multiple paths through a system) • Numeracy (Higher tier students introduced to sum of reciprocal values in parallel circuits)

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Wider Curriculum Links?	• DT / Engineering – Electrical circuit design and component testing, plus use of multimeters as used in lab practicals.	• Dependent upon topics covered in revision lessons
What useful websites are there for this topic? **Click links for more info**	 Free Science Lessons  Primrose Kitten  GCSE Pod  BBC Bitesize  Oak National Academy *Select KS4 Science (Triple)*	
What wider reading could be done for this topic? **Click links for more info**	**Textbook** *(separate sciences)*: AQA GCSE Physics Student Book (3rd Ed) **Textbook** *(combined science)*: AQA GCSE Physics for Combined Science (Trilogy) Student Book (3rd Ed) **Revision Guide** *(separate sciences)*: AQA GCSE 9-1 Physics All-in-One Complete Revision and Practice *(available on ParentPay)* **Revision Guide** *(combined science)*: AQA GCSE 9-1 Combined Science Higher All-in-One Complete Revision and Practice *(available on ParentPay)*	
What else can students be doing independently to develop their understanding of this topic? **Click links for more info**	**Exam Question Practice** *(matches the revision guides on ParentPay)*: Collins AQA GCSE 9-1 Physics Workbook **Exam Question Practice** *(Separate Higher Tier)*: CGP GCSE Physics AQA Exam Practice Workbook - Higher **Exam Question Practice** *(Combined Higher Tier)*: CGP GCSE Combined Science AQA Exam Practice Workbook – Higher **Exam Question Practice** *(Separate Foundation Tier)*: CGP GCSE Physics AQA Exam Practice Workbook - Foundation **Exam Question Practice** *(Combined Foundation Tier)*: CGP GCSE Combined Science AQA Exam Practice Workbook - Foundation	