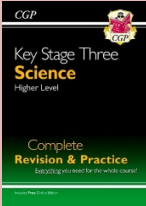
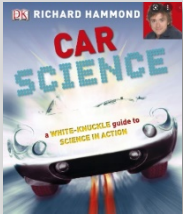
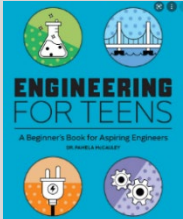


The English Martyrs Catholic School and Sixth Form College

Physics Year 8	Module 1	Module 2	Module 3
<u>Topic Theme and Intent</u>	Students learn the fundamentals of electricity and magnetism . Starting with simple series circuits and components , then building up to parallel circuits and then linking electricity to magnetism, through the work on electromagnetism . Students learn about this so that they start to build an understanding of the links between electrical and magnetic phenomena.	Students learn about energy resources , energy types and stores and different ways in which energy can be transferred from one object to another or from one store to another. Students learn about this topic so that they can understand the role of energy in the wider world and universe.	Students learn about the motion of objects, linking this to forces and then moves onto looking at how pressure arises and is measured. Students learn about this so that they can explain how forces cause acceleration and cause pressure in everyday life.
<u>Knowledge</u>	<ul style="list-style-type: none"> • Circuits and current • Voltage and resistance • Magnets • Electromagnets 	<ul style="list-style-type: none"> • Energy resources and stores • Heat vs temperature • Energy transfer • Work done and power 	<ul style="list-style-type: none"> • Speed, distance and time • Distance time graphs • Pressure • Forces and motion
<u>Skills</u>	Students will develop skills of building electrical circuits and taking accurate reading of voltage and current.	Students will investigate ways to reduce heat loss by conduction, convection and radiation	Students will calculate the speed of moving objects through taking measurements.
<u>Literacy Links</u>	<p>Reading – Students will read about uses of electricity.</p> <p>Writing – Students start to communicate scientific ideas and concepts through writing.</p> <p>Oracy – Students start to use scientific vocabulary in discussion and question and answering.</p>	<p>Reading – Students will read about the use of energy resources.</p> <p>Writing – Students practise communicating scientific ideas and concepts through writing.</p> <p>Oracy – Students practise the use scientific vocabulary in discussion and question and answering.</p>	<p>Reading – Students will read about the effects of forces.</p> <p>Writing – Students will communicate scientific ideas and concepts through writing.</p> <p>Oracy – Students use scientific vocabulary in discussion and question and answering.</p>
<u>Essential Vocabulary</u>	Series, Parallel, Current, Voltage, Resistance, Static, Electromagnetism, Coil, Potential difference	Energy, Conduction, Convection, Radiation, Stores, Kinetic, Gravitational, Elastic, Potential, Insulation	Motion, Acceleration, Force, Atmospheric, Contact, Moment, Pivot, Newton, Lever, Density

Disciplinary Reading	Reading for Pleasure		
CGP Books – KS3 Science 	R. Hammond - Car Science 	Dr P. McCauley - Engineering for Teens 	D. O'Briain – Beyond the Sky 