

<b>Topic: Engineering Achievements AUT 2 (Part2)</b>			<b>Duration: 6 lessons</b>	<b>Composite:</b>
<b>Key vocabulary:</b>	<b>Core knowledge Components</b>		<b>Powerful knowledge components crucial to commit to long term memory</b>	<b>Links to previous and future topics</b>
GPS Social media Touch screens Genetic Engineering Renewable energy Robotics / A.I. Nanotechnology. Graphene Miniaturisation Battery Efficiency Interfaces / facial recognition Software Graphics Processing Speed Repetitive Accurate / Safe Sensors Inventory Control Renewable	<ul style="list-style-type: none"> <li>Name 4 engineering/scientific achievements of the 21<sup>st</sup> century</li> <li>How will modern material impact on engineering in the future (e.g, graphene)?</li> <li>List 5 technological developments that have resulted in new generations of mobile phones/i-pads/pc's?</li> <li>How has modern technology effected the development of modern communications technology (e.g. mobile phone)?</li> <li>How has modern technology made products (such as cordless drills) safer?</li> <li>What technologic developments have enabled products to miniaturise?</li> <li>What 4 technological developments that have increased the popularity of electronic goods?</li> <li>How can designers improve the design of electronic goods to make them more environmentally friendly?</li> <li>How can new energy sources aid the environment?</li> </ul>		<ul style="list-style-type: none"> <li>Name and describe a modern material</li> <li>Name and describe a technological development of the 21<sup>st</sup> century</li> <li>Name 5 technological developments that have aided the development of modern communication (phones etc)products?</li> <li>Name 3 technological developments that have made the home safer</li> <li>Why has the size of modern electronics changed over the last 20 years?</li> <li>State 3 advantages of robotics in industry</li> <li>State 3 disadvantages of robotics in industry</li> <li>Name common uses for robotics in industry</li> <li>How has new technology altered the roles of people in the home?</li> <li>How have engineering developments altered the roles of people at work?</li> <li>How have technological developments changed life in society?</li> </ul>	Year 7 + 9 modern and smart materials  Year 9 Nano technology  Year 8 environmental.  Year 9 electronics module  Science/Geography environmental concerns.
<b>Impressive reading</b>	<b>Impressive speaking</b>	<b>Impressive writing</b>	<b>Resilience</b>	<b>Employability via:</b>
Ability to identify key information.	Taking part in class discussions. Use of appropriate technical language	Responses to extended exam questions	Find and correct own mistakes.	Understanding the changing developing world around them. Understanding that the rate of change in the world is increasing and technological skills are required in the work place.
<b>SEND</b>				
<b>Key Vocabulary introduced using precision teaching prior to new topic.</b> <ul style="list-style-type: none"> <li>Linked to prior knowledge from year 7. 8 and 9 to aid independence. Repeating of keywords.</li> <li>Additional curriculum time allocated to those authorised, to support processing speed.</li> <li>Project chosen so that knowledge and skills can be used at apprenticeship or engineering interviews, work-related to support the pathway into adulthood</li> <li>Project chosen to support cross curricular links science, geography, IT, supporting non-verbal reasoning</li> <li>Technology: software (word, powerpoint) used to support accessibility</li> <li>Skills ordered logically and as individual tasks to support accessibility.</li> </ul>				