

Create hypothesise formulate design imagine compose develop improve	<ul style="list-style-type: none"> <li>• Justify the development of an improved final solution with reference to the engineering brief and peer review.</li> <li>• Evaluate the use of the design process and formulate improvements.</li> <li>• Produce design proposals for an engineered product.</li> </ul>
Evaluate recommend persuade debate justify assess conclude determine	<ul style="list-style-type: none"> <li>• Evaluate the design process and component against given design criteria.</li> <li>• Justify the selection of materials in terms of suitability for the product purpose.</li> <li>• Evaluate how engineers from different sectors generate an engineered product in context of user and design requirements.</li> </ul>
Analyse infer research investigate question appraise examine prioritise organise	<ul style="list-style-type: none"> <li>• Research manufacturing processes that are carried out on a range of materials used in engineered products.</li> <li>• Disassemble and analyse existing products and components to determine materials, function, how components are linked together.</li> <li>• Assess product suitability for designed purpose.</li> <li>• Appraise the design and develop an improved solution using CAD modelling.</li> </ul>
Apply demonstrate manipulate calculate practise identify use	<ul style="list-style-type: none"> <li>• Demonstrate a range of tests to determine the properties of a range of materials.</li> <li>• Use own initiative to identify tools and equipment required to carry out set tasks.</li> <li>• Follow steps required to produce functioning prototype.</li> <li>• Select appropriate materials, accurately measure and make a basic tool or component.</li> </ul>
Understand explain interpret give examples estimate illustrate	<ul style="list-style-type: none"> <li>• Produce Isometric and Orthographic drawings of a range of geometric shapes.</li> <li>• Understand the properties and qualities of a range of metals, polymers, composites, smart materials and their applications.</li> <li>• Interpret dimensional and other information on technical drawings.</li> <li>• Give examples of a range of Polymers, their properties and applications.</li> </ul>
Remember list recognise define recall label	<ul style="list-style-type: none"> <li>• Recall list of materials from different categories.</li> <li>• Describe engineering processes and applications for each type.</li> </ul>

<b>Create</b> hypothesise formulate design imagine compose develop improve	<ul style="list-style-type: none"> <li>• Develop creative ideas for engineered products.</li> <li>• Design a prototype for an idea for an engineered product.</li> <li>• Produce product design specifications for an engineered product.</li> <li>• Justify the development of an improved final solution with reference to the engineering brief and peer review.</li> <li>• Interpret engineering information, produce schedule of resources and sequence the activities.</li> </ul>
<b>Evaluate</b> recommend persuade debate justify assess conclude determine	<ul style="list-style-type: none"> <li>• Evaluate options for design solutions.</li> <li>• Evaluate the design process and component against product design specification.</li> <li>• Justify the selection of materials in terms of suitability for the product purpose and function.</li> <li>• Evaluate engineering materials, proprietary components and processes used when making engineered products.</li> </ul>
<b>Analyse</b> infer research investigate question appraise examine prioritise organise	<ul style="list-style-type: none"> <li>• Disassemble and analyse existing products and components to determine materials, function, how components are linked together.</li> <li>• Assess product suitability for designed purpose.</li> <li>• Appraise the design and develop an improved solution using CAD modelling.</li> </ul>
<b>Apply</b> demonstrate manipulate calculate practise identify use	<ul style="list-style-type: none"> <li>• Identify features that contribute to the primary function of engineered products.</li> <li>• Identify features of an engineered products that meet the requirements of a brief.</li> <li>• Describe how engineered products function and their components interrelate.</li> <li>• Use a range of materials to make a basic tool.</li> <li>• Apply sequencing to produce a functioning prototype.</li> </ul>
<b>Understand</b> explain interpret give examples estimate illustrate	<ul style="list-style-type: none"> <li>• Understand the properties and qualities of a range of metals, polymers, composites, smart materials and their applications and how they are tested.</li> <li>• Interpret dimensional and other information on technical drawings for engineered products.</li> <li>• Explain why they are carrying out specific making processes.</li> </ul>
<b>Remember</b> list recognise define recall label	<ul style="list-style-type: none"> <li>• Recall engineering sectors and associated products.</li> <li>• Describe engineering materials, processes and products from each.</li> <li>• Recognise materials used to make components.</li> </ul>

Create hypothesise formulate design imagine compose develop improve	<ul style="list-style-type: none"> <li>• Produce an engineered product from their design idea.</li> <li>• Justify the development of an improved final solution with reference to their original engineering brief.</li> <li>• Evaluate the use of the design process and formulate improvements.</li> <li>• Develop the production and resources planning schedule for their design idea.</li> </ul>
Evaluate recommend persuade debate justify assess conclude determine	<ul style="list-style-type: none"> <li>• Propose solutions in response to engineering problems.</li> <li>• Evaluate the design process and component against product design specification.</li> <li>• Justify the selection of materials in terms of suitability for the product purpose.</li> <li>• Evaluate how engineers from different sectors generate an engineered product in context of organisation size and job roles.</li> </ul>
Analyse infer research investigate question appraise examine prioritise organise	<ul style="list-style-type: none"> <li>• Analyse situations and scenarios for engineering problems.</li> <li>• Explain the effects of engineering achievements.</li> <li>• Explain how environmental issues affect engineering applications.</li> <li>• Assess product suitability for designed purpose.</li> <li>• Appraise the design and develop an improved solution using CAD modelling and technical drawing techniques.</li> <li>• Be independent in organising themselves for practical work.</li> </ul>
Apply demonstrate manipulate calculate practise identify use	<ul style="list-style-type: none"> <li>• Use mathematical techniques for solving engineering problems.</li> <li>• Use own initiative to identify tools and equipment required to carry out set tasks.</li> <li>• Produce design proposals for an engineered product.</li> <li>• Follow steps required to produce functioning prototype.</li> <li>• Select appropriate materials, accurately measure and make a basic tool or component.</li> <li>• Practise using a range of tools and equipment.</li> </ul>
Understand explain interpret give examples estimate illustrate	<ul style="list-style-type: none"> <li>• Describe the applications of engineering processes and explain why they are carrying out specific making processes.</li> <li>• Understand the properties and qualities of a range of metals, polymers, composites, smart materials.</li> <li>• Interpret dimensional and manufacturing information on technical drawings.</li> <li>• Explain the use of a range of tools and equipment.</li> </ul>
Remember list recognise define recall label	<ul style="list-style-type: none"> <li>• List a range of processes in the production of engineered products.</li> <li>• Recall list of key words and instructions for simple CAD programme.</li> <li>• Define the main criteria for an engineered product specification.</li> <li>• List and label a range of tools and equipment.</li> </ul>