

	End of KS2	Year 7	Year 8	Year 9	Year 10	Year 11
Technical Knowledge and Understanding	<p>I understand how to strengthen and reinforce structures.</p> <p>I understand the use of some mechanical systems (pulleys, gears).</p> <p>I understand the properties of some materials.</p> <p>I can identify some electrical devices.</p> <p>I can identify some workshop tools.</p>	<p>I understand how to strengthen and reinforce structures.</p> <p>I can select some materials based on their properties.</p> <p>I understand the use of some mechanical systems (pulleys, gears).</p> <p>I understand the properties of some materials.</p> <p>I can identify some electrical devices.</p> <p>I can identify some workshop tools suitable for materials and use them safely.</p>	<p>I can select materials based on their properties for a given use.</p> <p>I understand the use of some mechanical systems (pulleys, gears).</p> <p>I understand the properties of some materials and how properties can change.</p> <p>I can identify some electrical devices.</p> <p>I can identify many workshop tools suitable for different materials and use them safely.</p>	<p>I can select materials based on their properties to solve a problem.</p> <p>I understand how more advanced mechanical systems can be used to achieve movement.</p> <p>I understand how more advanced electrical systems can be used in product design.</p> <p>I can select and safely use a range of suitable tools for different materials.</p>	<p>I can select material based on my understanding and experience to solve a problem.</p> <p>I am beginning to understand how materials are sourced and used in industry.</p> <p>I am beginning to understand how materials and processes have an impact on wider society.</p> <p>I can describe some industrial manufacturing processes.</p> <p>I can safely use a range of specialist tools for appropriate purposes.</p>	<p>I can select material based on my understanding and experience to solve a problem.</p> <p>I understand how materials are sourced and used in industry.</p> <p>I understand how materials and processes have an impact on wider society.</p> <p>I can explain a range of industrial manufacturing processes.</p> <p>I can safely use a range of specialist tools for appropriate purposes.</p>
Design	<p>I can use research to inform a design idea.</p> <p>I can generate a design through discussion.</p>	<p>I can use different research methods to inform a design idea.</p> <p>I can generate a design through</p>	<p>I am beginning to understand how the work of others can influence my design idea generation.</p>	<p>I can use the work of others to influence my design idea generation.</p> <p>I can develop</p>	<p>I am beginning to design using the iterative process.</p> <p>I can work collaboratively with</p>	<p>I can design using the iterative process.</p> <p>I can work collaboratively with others to develop</p>

	I can use a range of techniques to plan a product's creation (eg. modelling, drawings, etc). I can use labels and annotations to support my designs.	discussion. I can confidently use a range of techniques to plan a product's creation (eg. modelling, drawings, etc). I can use labels and annotations to support my designs.	I can develop basic specifications that constrain my designs. I can produce creative design ideas. I can use annotation to support my design work.	specifications that constrain my designs. I can produce creative design ideas that do not fixate. I can use effective annotation to support my design work. I am beginning to use CAD to help with design generation.	others to develop ideas. I can develop creative solutions based on research. I can confidently use specifications to constrain my idea generation. I can communicate my design work in a number of different mediums including through use of CAD.	and refine ideas. I can innovate based on focussed research. I can develop and use specifications to constrain my idea generation. I can communicate my design work in a number of different mediums including through use of CAD.
Make	I can select from a range of tools and equipment to perform basic practical tasks. I can select from a range of components and materials to produce a product. I can use some basic tools to improve accuracy of outcome.	I can select from a range of tools and equipment to perform basic practical tasks safely. I can select from a range of components and materials to produce a product with direction from a teacher. I can use some specialist tools to improve accuracy of outcome.	I can use some specialist tools, techniques and processes to create a product. I can select from a wider range of materials and components in order to produce an effective product with direction. I can use some tools to develop a high quality prototype.	I can use specialist tools, techniques and processes to create a product. I can select from a wider range of materials and components in order to produce an effective product. I can use some precision tools to develop a high quality prototype.	I can use my understanding of materials and manufacturing processes to develop working prototypes. I can use a range of specialist tools safely. I can use precision equipment to ensure work is accurate.	I can use my understanding of materials and manufacturing processes to develop working prototypes. I can use a wide range of specialist tools safely. I can use jigs and formers to aid repetition of parts. I can use precision equipment to ensure work is accurate.
Evaluation	I can evaluate ideas	I can evaluate ideas	I can analyse the	I can analyse the	I can evaluate a	I can critically

	<p>and products against criteria. I can consider others' opinions to improve my work. I can understand how events and individuals have helped to shape the world.</p>	<p>and products against criteria. I can consider and act on others' opinions to improve my work. I can understand how events and individuals have helped to shape the world.</p>	<p>work of some past and present professionals to broaden my understanding. I can test and evaluate a product against criteria whilst taking into account the views of others. I know how some developments have had an impact on the wider world.</p>	<p>work of past and present professionals to broaden my understanding. I can investigate new and emerging technologies. I can test, refine and evaluate a product against criteria whilst taking into account the views of others. I know how developments in technology can have an impact on the wider world (environmental, social, etc)</p>	<p>product based on other opinions and views. I can evaluate against a specification, draw some conclusions and then refine my ideas/prototypes. I can explain how design has been influenced by a number of key design styles/designers across history.</p>	<p>evaluate a product based on other opinions and views. I can evaluate against a specification, draw conclusions and then refine my ideas/prototypes. I can refer to significant changes in technology/practice that impact the design of products. I can explain how design has been influenced by a number of key design styles/designers across history.</p>
Health & Safety	<p>I can identify key health and safety within the practical environment.</p>	<p>I can acknowledge hazards through demonstrations and discuss what the risks could be.</p>	<p>I can order the hazards in a situation from most to least severe. I am able to suggest ways to prevent this.</p>	<p>I can confidently identify hazards within a given situation; describing the risks associated.</p>	<p>I can describe the health and safety procedures that need to be carried out; explaining how to prevent the hazard from occurring.</p>	<p>I can evaluate the health and safety of a given task and I am able to independently select the correct procedures and justify myself referring to legislation.</p>