



Design & Technology - Age Related Expectations

Year 7 Pathways



	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition	
P a t h w a y 1 - 3	1	Know of material properties, be aware of a mechanical system and an electronic systems	Some ideas developed that show some design features, 2D and CAD drawing used for final design.	Prototype shows basic level of making skills, tools and equipment used at an introductory level and some evidence of the making is evidenced	Be aware that prototype needs testing and that reflecting on work will improve outcomes. Written some good and bad points about the prototype	Students can use some kitchen equipment with support. Students have an awareness of the importance of healthy eating and the significance of following good food hygiene methods.
	2	Be aware of what 'properties' and 'characteristics' mean in Design and Technology. Be aware of a mechanical system, of an electronic system and know that some materials are 'smart'.	Some ideas developed with limited aesthetics and innovation. Further developments created with basic 2D drawing. CAD drawing used where appropriate	Prototype shows basic level of making skills, tools and equipment used at an introductory level and some evidence of the making is evidenced	Be aware that prototype needs testing and that reflecting on work will improve outcomes. Written some good and bad points about the prototype	Students can use some kitchen equipment with support. Students have an awareness of the importance of healthy eating and the significance of following good food hygiene methods.
	3	Be able to describe some properties of woods/metals/plastics. Be able to recognise mechanical and electronic systems and be aware of a smart material	Some ideas developed with limited aesthetics and innovation. Further developments created with basic 2D drawing. CAD drawing used where appropriate.	Prototype shows basic level of making skills and finishing, tools and equipment used at a closer supervisory level and some evidence of the making is evidenced	Prototype has been tested and comments added about the good and bad parts. Some superficial improvements suggested	Students can use some kitchen equipment with support. Students have an awareness of the importance of healthy eating and the significance of following good food hygiene methods.
	4	Know that timber, metal and polymers have different properties and characteristics. Know of different mechanical and electronic systems. Give an example of a smart material	Some ideas developed with limited aesthetics and innovation. Further developments created with basic 2D drawing. CAD drawing used where appropriate	Prototype shows fair level of making skills and finishing but may not be appropriate, tools and equipment used at a supervisory level to work to a tolerance and create a prototype that needs a lot of development for commercial viability. Some evidence of the making is evidenced.	Prototype has been tested then positive and negative comments written about the prototype. Some suggestions described about improving the prototype.	Students can use some kitchen equipment with support. Students have an awareness of the importance of healthy eating and the significance of following good food hygiene methods.

	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition
Pathway 4-6	1 Understand what 'properties' and 'characteristics' mean in Design and Technology. Be aware of a mechanical system, of an electronic system and know that some materials are 'smart'.	Some ideas developed with limited aesthetics and innovation. Further developments created with basic 2D drawing. CAD drawing used where appropriate	Prototype shows basic level of making skills. Hand and machine tools, materials and equipment have been used but under direct supervision and guidance. Prototype shows basic manufacturing competencies and Minimal stages of making evident.	Conduct some testing within the design and making process, reflect on the work and progress and, identify some strengths and areas for development. Describe the problems encountered, explain some improvements that made need to be made and why then evidence some feedback.	Students can use a variety of kitchen equipment including the oven safely. Students can demonstrate a clear understanding of nutrition and a healthy balanced lifestyle. Students are also aware of good food hygiene and the impact of the spread of bacteria.
	2 Understand the properties of some materials, Know of some basic mechanical systems and electronic systems. Know of computing, inputs and outputs.	Good ideas have been developed with some reference to functionality and aesthetics. Development takes into account research and uses 2D and 3D drawing. CAD used effectively where appropriate.	Prototype shows safe and simple making skills. Hand and machine tools, materials and equipment have been used but under direct supervision and guidance. Prototype shows basic manufacturing competencies and Minimal stages of making evident.	Conduct some testing within the design and making process, reflect on the work and progress and, identify some strengths and areas for development. Describe the problems encountered, explain some improvements that made need to be made and why then evidence some feedback.	Students can use a variety of kitchen equipment including the oven safely. Students can demonstrate a clear understanding of nutrition and a healthy balanced lifestyle. Students are also aware of good food hygiene and the impact of the spread of bacteria.
	3 Know that timber, metal and polymers have different properties and characteristics. Know of different mechanical and electronic systems. Give an example of a smart material	Good ideas have been developed with some reference to functionality, aesthetics and innovation. Developed ideas take into account ongoing research and include effective use of 2D and 3D drawing with reference to materials/tools/components.	Prototype shows a limited level of making /finishing skills that are not always appropriate. Tools and equipment used safely and consistently while working to a specified tolerance. Created a prototype that needs some further development for commercial viability but has appeal to target market. Some aspect of quality controls used and evidence of the making recorded with consideration to processes used.	Conduct some testing within the design and making process, evaluate some aspects of my work taking some account the client and the user's opinion. Reflect on work and progress, identify some strengths and areas for development. Describe the problems encountered, explain some improvements that made need to be made and why. Provide evidence of feedback.	Students can use a variety of kitchen equipment including the oven safely. Students can demonstrate a clear understanding of nutrition and a healthy balanced lifestyle. Students are also aware of good food hygiene and the impact of the spread of bacteria.

4	<p>Have an awareness of basic properties of wood, metal and plastic. Have an understanding of what a mechanical system is and how they may affect movement and force. Understand what a basic electronic system is and how they might be used in product design. Know that some materials are 'smart' and what this means.</p>	<p>Good quality ideas have been developed with reference to functionality, aesthetics and innovation. Further developed ideas take into account ongoing research and include effective use of 2D and 3D drawing with reference to materials/tools/components.</p>	<p>Prototype shows a fair level of making /finishing skills that are appropriate. Tools and equipment used safely and consistently while working to a specified tolerance to create a fair quality prototype that needs some further development for commercial viability but has appeal to target market. Some aspect of quality controls used and evidence of the making recorded with consideration to processes used.</p>	<p>Conduct some testing within the design and making process, evaluate some aspects of my work taking some account the client and the user's opinion. Reflect on work and progress, identify some strengths and areas for development. Describe the problems encountered, explain some improvements that made need to be made and why. Provide evidence of feedback.</p>	<p>Students can use a variety of kitchen equipment including the oven safely. Students can demonstrate a clear understanding of nutrition and a healthy balanced lifestyle. Students are also aware of good food hygiene and the impact of the spread of bacteria.</p>
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	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition	
P a t h w a y 7 - 9	1	<p>Understand the properties of some materials, Know of some basic mechanical systems and electronic systems. Know of computing, inputs and outputs.</p>	<p>Good ideas have been developed with some reference to functionality and aesthetics. Development takes into account research and uses 2D and 3D drawing. CAD used effectively where appropriate.</p>	<p>Prototype shows a basic level of making skills that are not always appropriate. Tools, materials and equipment selected and operated however they have required close supervision and guidance. Prototype shows basic manufacturing competencies and Minimal stages of making evident.</p>	<p>Conduct some testing within the design and making process, evaluate some aspects of work taking mostly into account either the customer or the user. Reflect on the work and progress and, identify some of my strengths and areas for development. Describe the problems encountered and why, then explain some improvements that need to be made and why followed by evidence of feedback.</p>	<p>Students can use a variety of kitchen equipment including the oven safely. Students are able to give appropriate advice regarding how diet and lifestyle can be improved and justify reasons why. Students can fully explain the 4C's and the importance of food hygiene and cross-contamination.</p>
	2	<p>Know that timber, metal and polymers have different properties and characteristics. Know of different mechanical and electronic systems. Give an example of a smart material</p>	<p>Good ideas have been developed with some reference to functionality, aesthetics and innovation. Developed ideas take into account ongoing research and include effective use of 2D and 3D drawing with reference to materials/tools/components.</p>	<p>Prototype shows a fair level of making /finishing skills that are not always appropriate. Tools, materials and equipment selected and used safely with some supervision. Prototype shows basic manufacturing competencies and stages of making evidenced</p>	<p>Conduct some testing within the design and making process, evaluate some aspects of my work taking mostly into account either the customer, the client and the user's opinion. Reflect on work and progress, identify some strengths and areas for development. Describe the problems encountered, explain some improvements that made need to be made and why. Provide evidence of feedback.</p>	<p>Students can use a variety of kitchen equipment including the oven safely. Students are able to give appropriate advice regarding how diet and lifestyle can be improved and justify reasons why. Students can fully explain the 4C's and the importance of food hygiene and cross-contamination.</p>

3	<p>Have a basic understanding of basic properties of timbers, metals and Polymers. Understand what a mechanical system is and how they affect movement and force. Understand what a basic electronic system is and how they might be used in product design. Know about some smart materials and what their feature is.</p>	<p>Appropriate materials/components selected with understanding into their working properties and availability through effective 2D and 3D drawings and use of CAD. Demonstrated an awareness of a planned approach to making.</p>	<p>Prototype shows a good level of making /finishing skills that are appropriate. Tools, materials and equipment selected and used safely with some supervision. Quality control checks used. Prototype shows fair manufacturing competencies and stages of making evidenced with consideration to processes used.</p>	<p>Conduct testing within the design and making process, evaluate most aspects of my work taking mostly into account either the customer, the client and the user's opinion. Reflect on most aspects of work and progress then identify strengths and areas for development. Describe the problems encountered as well as providing why the problems may have occurred. Explain some improvements that need to be made and why and provide evidence of feedback from a range of sources.</p>	<p>Students can use a variety of kitchen equipment including the oven safely. Students are able to give appropriate advice regarding how diet and lifestyle can be improved and justify reasons why. Students can fully explain the 4C's and the importance of food hygiene and cross-contamination.</p>
4	<p>Have an understanding of properties of timbers, metals and Polymers. Understand mechanical systems and how they affect movement and force. Understand what a basic electronic system is and how they might be used in product design. Be able to explain what a smart material is and how they could be used</p>	<p>Imaginative ideas have been developed considering functionality, aesthetics and innovation. Further developments have been made that take into account ongoing research and effective 2D and 3D drawings. Appropriate materials/components selected with understanding into their working properties and availability allowing for a planned approach to making.</p>	<p>Prototype shows a good level of making /finishing skills that are appropriate. Relevant tools, materials and equipment selected and used independently and safely. Quality control checks used to work to a set tolerance. Prototype shows good manufacturing competencies and stages of making evidenced with consideration to processes used.</p>	<p>Conduct testing within the design and making process, evaluate aspects of work taking mostly into account either the customer, the client and the user's opinion. Reflect on most aspects of the work and progress, then identify strengths and areas for development. Describe problems that occurred and how they may be rectified in the future. Explain some improvements that made need to be made and why, then evidence feedback from a range of sources.</p>	<p>Students can use a variety of kitchen equipment including the oven safely. Students are able to give appropriate advice regarding how diet and lifestyle can be improved and justify reasons why. Students can fully explain the 4C's and the importance of food hygiene and cross-contamination.</p>



Design & Technology - Age Related Expectations

Year 8 Pathways



	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition	
P a t h w a y 1 - 3	1	Can describe that timber, metal and polymers have different properties and characteristics. Know of different mechanical and electronic systems. Give an examples of smart materials	Ideas communicated and developed with limited aesthetics and innovation. Labels and basic notes use to describe features. Further developments created with basic 2D and 3D drawing. CAD drawing used where appropriate.	Prototype shows fair level of making skills and finishing that is appropriate, tools and equipment used safely to work to a tolerance and create a prototype that needs further development for commercial viability. Evidence of the making recorded..	Conducted some testing within the design and making process, reflect on the work to identify some strengths and areas for development. Described the problems encountered, explained some improvements that were needed then evidenced some feedback.	Students can identify some key terminology used in relation to nutrition and health, and with some support, be able to cook savoury dishes to feed the family. Students, with some support can demonstrate different practical techniques, identify the function of some ingredients and be able to recognise the sensory characteristics of some foods.
	2	Have an awareness of material properties and be able to choose suitable materials for a project. Can describe mechanical and electronic systems referring to their input, process and outputs. Be able to give examples of smart materials and their 'stimuli'	Ideas communicated and developed with consideration to aesthetics and innovation. Labels and basic notes use to describe features. Further developments created with basic 2D and 3D drawing. CAD drawing used where appropriate along with some reference to materials and tools	Prototype shows fair level of making skills and finishing that is appropriate, tools and equipment used safely to work to a specified tolerance and create a prototype that needs further development for commercial viability. Some aspect of quality controls used and evidence of the making recorded with consideration to the processes used.	Conducted some testing within the design and making process, reflect on the work to identify some strengths and areas for development. Described the problems encountered, explained some improvements that were needed then evidenced some feedback.	Students can identify some key terminology used in relation to nutrition and health, and with some support, be able to cook savoury dishes to feed the family. Students, with some support can demonstrate different practical techniques, identify the function of some ingredients and be able to recognise the sensory characteristics of some foods.

	<p>3</p> <p>Have an understanding of the property materials and be able to choose suitable materials for a project. Can describe mechanical and electronic systems referring to their input, process and outputs. Be able to give examples of smart materials and their 'stimuli'</p>	<p>Some creativity demonstrated with design development, consideration given to aesthetics and functionality. Labels and basic notes use to describe features. Further developments created with basic 2D and 3D drawing. CAD drawing used where appropriate along with some reference to materials and tools.</p>	<p>Prototype shows fair level of making/finishing skills that are appropriate, tools and equipment used safely to work to a specified tolerance met to create a prototype that needs some further development for commercial viability. Some aspect of quality controls used and evidence of the making recorded with consideration to industrial skills and processes.</p>	<p>Conducted some testing through the design and making process, reflected on the work to identify some strengths and areas for development. Described the problems encountered, explained some improvements that were needed then evidenced some feedback to improve the prototype.</p>	<p>Students can identify some key terminology used in relation to nutrition and health, and with some support, be able to cook savoury dishes to feed the family. Students, with some support can demonstrate different practical techniques, identify the function of some ingredients and be able to recognise the sensory characteristics of some foods.</p>
	<p>4</p> <p>Have an understanding of the material properties and be able to choose suitable materials for a project. Can describe mechanical and electronic systems referring to their input, process and outputs. Be able to give examples of smart materials and their 'stimuli'</p>	<p>Some creativity demonstrated with design development, consideration given to aesthetics and functionality. Labels and basic notes use to describe features. Further developments created with basic 2D and 3D drawing. CAD drawing used where appropriate along with some reference to materials and tools.</p>	<p>Prototype shows fair level of making/finishing skills that are appropriate. Tools and equipment used safely and consistently while working to a specified tolerance. Created a prototype that needs some further development for commercial viability but has appeal to target market. Some aspect of quality controls used and evidence of the making recorded with consideration to industrial skills and processes.</p>	<p>Conducted some testing through the design and making process, reflected on the work to identify some strengths and areas for development. Described the problems encountered, explained some improvements that were needed then evidenced some feedback to improve the prototype.</p>	<p>Students can identify some key terminology used in relation to nutrition and health, and with some support, be able to cook savoury dishes to feed the family. Students, with some support can demonstrate different practical techniques, identify the function of some ingredients and be able to recognise the sensory characteristics of some foods.</p>

	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition
Pathway 4 - 6	1 Have an awareness of properties of materials and use them to benefit product design. Understand mechanical systems and how they may affect movement and force. Understand basic electronic systems and how they might be used in product design. Have an awareness of some 'smart' materials and how they react to stimuli.	Quality ideas have been developed considering functionality, aesthetics and innovation. Further developments have been made that take into account ongoing research and effective 2D and 3D drawings. Appropriate materials/components selected with some understanding into their working properties and availability allowing for a sensible approach to making.	Prototype shows a fair level of making /finishing skills that are appropriate. Tools and equipment used safely and consistently while working to a specified tolerance. Created a fair quality prototype independently that needs some further development for commercial viability. Some aspect of quality controls used and evidence of the making recorded with consideration to processes used and industrial skills.	Conduct testing within the design and making process, evaluate aspects of work taking mostly into account either the customer, the client and the user's opinion. Reflect on most aspects of the work and progress, then identify strengths and areas for development. Describe problems that occurred and how they may be rectified in the future. Explain some improvements that made need to be made and why, then evidence feedback from a range of sources.	Students have a working knowledge and understanding of key terminology used in nutrition and health, and be able to cook and prepare a range of savoury dishes to feed the family. Students will demonstrate different practical techniques, understand the function of most ingredients and be able to describe the sensory characteristics of a variety of foods.
	2 Use properties of materials to achieve appropriate solutions and have an awareness of the structure of some elements. Understand mechanical systems and how they affect movement and force. Understand electronic systems and how to use them in product design. Have an awareness of some 'smart' materials and how they react to stimuli.	Imaginative ideas have been developed considering functionality, aesthetics and innovation. Further developments have been made that take into account ongoing research and effective 2D and 3D drawings. Appropriate materials/components selected with understanding into their working properties and availability allowing for a planned approach to making.	Prototype shows a good level of making /finishing skills that are suitable. Tools and equipment used safely and consistently while working to a accurately. Created a good quality prototype independently that needs a little development for commercial viability. Use of quality control checks and evidence of the making recorded with consideration to processes used and industrial skills.	Conduct testing within the design and making process, evaluate aspects of work taking mostly into account either the customer, the client and the user's opinion. Reflect on most aspects of the work and progress, then identify strengths and areas for development. Describe problems that occurred and how they may be rectified in the future. Explain some improvements that made need to be made and why, then evidence feedback from a range of sources.	Students have a working knowledge and understanding of key terminology used in nutrition and health, and be able to cook and prepare a range of savoury dishes to feed the family. Students will demonstrate different practical techniques, understand the function of most ingredients and be able to describe the sensory characteristics of a variety of foods.

3	<p>Understand the properties of materials to achieve appropriate solutions and the structure of some elements. Understand mechanical systems and how they affect movement and force. Understand electronic systems and how to use them in product design. Understand computing and electronics and how to make products 'smart' reacting to various inputs.</p>	<p>Creative and Imaginative ideas have been developed, with a level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used effectively and takes into account user feedback and ongoing research. SMES issues are considered and all development work shows independence and understanding of material and tool properties</p>	<p>Prototype shows a high level of making /finishing skills that are appropriate, ensuring specified tolerances have been met. Relevant hand, machine tools and materials equipment have been consistently operated safely. Worked independently to produce a good quality prototype that could be commercially viable with development. Quality Control is evident ensuring the prototype is accurate using close tolerances. Evidence of the stages of making with consideration to industrial skills and processes.</p>	<p>Conduct testing within the design and making process, evaluate aspects of work taking into account the customer, the client and the user's opinion. Reflect on most aspects of the work and progress, then identify strengths and areas for development. Describe problems that occurred and how they may be rectified in the future. Explain some improvements that made need to be made and why, then evidence feedback.</p>	<p>Students have a working knowledge and understanding of key terminology used in nutrition and health, and be able to cook and prepare a range of savoury dishes to feed the family. Students will demonstrate different practical techniques, understand the function of most ingredients and be able to describe the sensory characteristics of a variety of foods.</p>
4	<p>Understand and use properties of materials and the structure of elements to achieve appropriate solutions. Understand complex mechanical systems and how they affect movement and force. Understand complex electronic systems and how to use them in product design. Understand computing and electronics and how to make products 'smart' reacting to various inputs.</p>	<p>Creative and Imaginative ideas have been developed, with a level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used effectively and takes into account user feedback and ongoing research. SMES issues are considered and all development work shows independence and understanding of material and tool properties.</p>	<p>Prototype shows appropriate high level making/finishing skills meeting accurate tolerances. Relevant hand tools, machine tools and materials have been selected and consistently operated safely. Worked independently to produce a good quality prototype that could be commercially viable with some development. Quality Control is evident ensuring the prototype is accurate using tolerances. Evidence of the stages of making with consideration to industrial skills and processes.</p>	<p>Conduct testing within the design and making process, evaluate aspects of work taking into account the customer, the client and the user's opinion. Reflect on most aspects of the work and progress, then identify strengths and areas for development. Describe problems that occurred and how they may be rectified in the future. Explain some improvements that made need to be made and why, then evidence feedback.</p>	<p>Students have a working knowledge and understanding of key terminology used in nutrition and health, and be able to cook and prepare a range of savoury dishes to feed the family. Students will demonstrate different practical techniques, understand the function of most ingredients and be able to describe the sensory characteristics of a variety of foods.</p>

	Knowledge	Designing	Manufacturing	Evaluating	Cooking and Nutrition	
P a t h w a y 7 - 9	1	<p>Use properties of materials to achieve appropriate solutions and have an awareness of the structure of some elements. Understand mechanical systems and how they affect movement and force. Understand electronic systems and how to use them in product design. Have an awareness of some 'smart' materials and how they react to stimuli.</p>	<p>Creative, Imaginative and Innovative ideas have been developed, with a high level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used effectively and takes into account user feedback and ongoing research. SMES issues are considered and all development work shows independence and understanding of material and tool properties</p>	<p>Prototype shows appropriate high level making/finishing skills meeting accurate tolerances. Relevant hand tools, machine tools and materials have been selected and consistently operated safely. Worked independently to produce a good quality prototype that could be commercially viable with some development. Quality Control is evident ensuring the prototype is accurate using tolerances. Evidence of the stages of making with consideration to industrial skills and processes.</p>	<p>Conduct testing within the design and making process and, evaluate most aspects work taking into account the customer, the client and the user's opinion. reflect on most aspects work and progress and, identify strengths and areas for development. Describe problems encountered and why the problems occurred along with how they may be rectified in the future. Evaluate work throughout the process of a project, explain range of improvements that should be made and why and, provide evidence of feedback from a range of sources.</p>	<p>Students have a clear knowledge and understanding of key terminology used in nutrition and health, and be able to independently prepare and cook a range of skilled savoury dishes to feed the family. Demonstrate a variety of different practical techniques; food preparation, applying heat in different ways, use of utensils and electrical equipment. Understand the functions of all ingredients, and be able to explain the sensory characteristics of a variety of foods.</p>
	2	<p>Use properties of materials to achieve appropriate solutions and have an awareness of the structure of some elements. Understand mechanical systems and how they affect movement and force. Understand electronic systems and how to use them in product design. Have an awareness of some 'smart' materials and how they react to stimuli.</p>	<p>Creative, Imaginative and Innovative ideas have been developed, with a high level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used effectively and takes into account user feedback and ongoing research. SMES issues are considered and all development work shows independence and understanding of material and tool properties</p>	<p>Prototype shows appropriate high level making/finishing skills meeting accurate tolerances. Relevant hand tools, machine tools and materials have been selected and consistently operated safely. Worked independently to produce a good quality prototype that is almost commercially viable. Quality Control is evident ensuring the prototype is accurate using tolerances. Evidence of the stages of making with consideration to industrial skills and processes used.</p>	<p>Conduct detailed testing within the design and making process. Evaluate all work taking into account the customer, the client and the user's opinion and also identify strengths and areas for development. Describe, in detail, the problems encountered as well as providing why the problems may have occurred and how they can be avoided the future. Explain a</p>	<p>Students have a clear knowledge and understanding of key terminology used in nutrition and health, and be able to independently prepare and cook a range of skilled savoury dishes to feed the family. Demonstrate a variety of different practical techniques; food preparation, applying heat in different ways, use of utensils and electrical equipment. Understand the functions of all ingredients, and be able to explain the sensory characteristics of a variety of foods.</p>

3	<p>Understand and use properties of materials to achieve appropriate solutions and the structure of some elements. Understand mechanical systems and how they affect movement and force. Understand electronic systems and how to use them in product design. Understand computing and electronics and how to make products 'smart' reacting to various inputs.</p>	<p>Highly creative, Imaginative and Innovative ideas have been developed, with an excellent level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used very effectively and takes into account user feedback and ongoing research. SMES issues are considered and implemented and, all development work shows a high level of independence and understanding of material and tool properties..</p>	<p>Prototype shows a high level of making /finishing skills that are consistent and appropriate, ensuring all specified tolerances have been met. Relevant and specific hand and machine tools, materials and equipment (including CAM where appropriate) have been consistently operated at a high level, both skilfully and safely. Worked independently to produce and high quality prototype that is commercially viable. A high level of Quality Control is evident ensuring the prototype is accurate using very close tolerances. Detailed evidence of the stages of making with consideration to industrial skills and processes.</p>	<p>Conduct detailed and appropriate testing within the design and making process. Evaluate all aspects of work taking into account the customer, the client and the user's opinion and also identify strengths and areas for development in detail. Describe with detail the problems encountered as well as providing why the problems may have occurred and how they may be rectified in the future. Explain, in detail, a wide range of improvements that could be made and provide clear and detailed evidence of feedback from a range of sources.</p>	<p>Students have a clear knowledge and understanding of key terminology used in nutrition and health, and be able to independently prepare and cook a range of skilled savoury dishes to feed the family. Demonstrate a variety of different practical techniques; food preparation, applying heat in different ways, use of utensils and electrical equipment. Understand the functions of all ingredients, and be able to explain the sensory characteristics of a variety of foods.</p>
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4	<p>Understand and effectively use the material properties and structure of elements to achieve functional solutions. Understand and use complex mechanical systems and show how they affect movement and force. Understand complex electronic systems and use them in design utilising inputs, processes and outputs. Demonstrate an understanding of smart materials and their respective stimuli</p>	<p>Highly creative, Imaginative and Innovative ideas have been developed, with an excellent level of accuracy and consistency, considering functionality, aesthetics and innovation. 2D and 3D CAD has been used very effectively and takes into account user feedback and ongoing research. SMES issues are considered and implemented and, all development work shows a high level of independence and understanding of material and tool properties.</p>	<p>Prototype shows an exceptionally high level of making /finishing skills that are consistent and appropriate, ensuring all specified tolerances have been met. Relevant and specific tools, materials and equipment (including CAM where appropriate) that have been consistently operated at an exceptionally high level, both skilfully and safely. Worked independently to produce an exceptionally high quality prototype that is commercially viable demonstrating a high level of Quality Control that ensured the prototype was accurate. Detailed evidence of the manufacturing with consideration to industrial skills and processes.</p>	<p>Conduct highly detailed and appropriate testing within the design and making process. Fully evaluate all aspects of work taking into account the customer, the client and the user's opinion and also identify strengths and areas for development in detail. Explain the problems encountered as well as providing why the problems may have occurred and how they may be avoided in the future. Explain, in detail, a wide range of improvements that need to be made and provide clear and detailed evidence of feedback from an extensive range of sources.</p>	<p>Students have a clear knowledge and understanding of key terminology used in nutrition and health, and be able to independently prepare and cook a range of skilled savoury dishes to feed the family. Demonstrate a variety of different practical techniques; food preparation, applying heat in different ways, use of utensils and electrical equipment. Understand the functions of all ingredients, and be able to explain the sensory characteristics of a variety of foods.</p>
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