

**Design Technology YEAR 7**

Design	Make	Evaluate	Technical Knowledge
<i>Research and explore to identify and understand user needs. Identify and solve design problems and understand how to reformulate problems. Develop specifications to inform the design of innovative, functional, appealing outcomes. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate a range of design ideas using a variety of presentation methods.</i>	<i>Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties.</i>	<i>Analyse the work of past and present professionals and designers to develop and broaden understanding. Investigate new and emerging technologies. Test, evaluate and refine ideas and outcomes against a specification, taking into account the user's opinion. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.</i>	<i>Understand the properties of materials and the performance of structural elements to achieve functioning solutions. Understand how more advanced mechanical systems used in their products enable changes in movement and force understand how more advanced electrical and electronic systems can be powered and used in their products. Apply computing and use electronics to embed intelligence in products that respond to inputs and control using programmable components.</i>

Emerging	A basic single design idea has been attempted. No attempt to annotation to describe how the product will work. Basic understanding of CAD to develop design work.	A basic use soldering tools and equipment leading to incomplete work, frequent errors and inaccuracy in construction.	A basic attempt to analyse and evaluation design ideas and products. Little or no evidence of testing to help refine work for the better.	A basic understanding of how electrical systems work. Basic use of components to create a working circuit. Basic use of CAD to create incomplete drawings, with frequent errors.
Developing	A limited number of design ideas (less than 3) created, and annotation provides little of the information about how the product will work. Limited use of CAD to develop design solution.	Ability to use a small number of tools with limited accuracy, leading to minor errors and faults. Use of CAD tools is limited with incorrect tools being chosen.	Some attempt to analyse and evaluation design work but limited to the minimum. Some evidence of testing to help refine work for the better.	Limited understanding of how electrical systems work. Some limited use of the components to create a functioning circuit. Limited use of CAD to create complete drawings with minor errors.
Securing	A good range of annotated design ideas (minimum 3 ideas). There is an ability to identify a suitable target market. Good use of CAD to develop design solution.	The ability to select and use the correct tools and processes, leading to well-made products with a good level of accuracy.	A good understanding of the task through detailed analysis and evaluation. Good evidence of testing to help refine work for the better.	A good understanding of how electrical systems work. Evidence of good application of the components to create a fully functioning circuit. Good use of CAD to create complete drawings.
Excelling	Excellent range of creative fully annotated design ideas. There is an ability to adapt to suit a target market which is fully explained and justified. Excellent use of CAD to develop design solution.	Excellent application of knowledge in the use of CAD and CAM. Can demonstrate to an excellent standard the use of a variety of tools with excellent accuracy and precision.	Excellent understanding demonstrated with high quality, independent analysis and evaluation that help clarify thinking. Excellent evidence of testing to help refine work for the better.	Excellent understanding of how electrical systems work. Excellent application of application of the components to create a fully functioning circuit. Excellent use of CAD to create complete detailed drawings.

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Self-Assessment	In this module I have learnt:	In this module I have learnt:	In this module I have learnt:	In this module I have learnt:
	In this module I have improved:	In this module I have improved:	In this module I have improved:	In this module I have improved:
	Next time I need to:	Next time I need to:	Next time I need to:	Next time I need to:



Fashion & Interior Design		Design	Make	Evaluate	Technical Knowledge
		<i>Research and explore to identify and understand user needs. Identify and solve design problems and understand how to reformulate problems. Develop specifications to inform the design of innovative, functional, appealing outcomes. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate a range of design ideas using a variety of presentation methods.</i>	<i>Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties.</i>	<i>Analyse the work of past and present professionals and designers to develop and broaden understanding. Investigate new and emerging technologies. Test, evaluate and refine ideas and outcomes against a specification, taking into account the user's opinion. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.</i>	<i>Understand the properties of materials and the performance of structural elements to achieve functioning solutions. Understand how more advanced mechanical systems used in their products enable changes in movement and force understand how more advanced electrical and electronic systems can be powered and used in their products. Apply computing and use electronics to embed intelligence in products that respond to inputs and control using programmable.</i>
Emerging	Basic or no understanding of solving the problem. Basic evidence of being creative with ideas and materials.	Basic demonstration of techniques and processes used in the final outcome. A range of basic materials and components have been used.	Basic analysis has been used to improve and develop the final outcome. Basic evidence of knowledge used.	Knowledge is basic. Technical processes, materials and components have been used with basic application or none used.	
Developing	Limited evidence of being creative with ideas and materials in relation to the task. Limited or no ability to identify a suitable target market.	Limited demonstration of techniques, processes, materials and components used in the development of the final outcome.	Limited analysis has been demonstrated on how to improve and develop the final outcome. There is some evidence of knowledge being applied to the work.	Limited but relevant use of knowledge and understanding of issues relating to techniques, processes, materials and components.	
Securing	Good evidence of using a range of techniques and materials when designing and developing of ideas. There is an ability to independently identify a suitable target market.	Good selection of appropriate techniques, processes, materials and components in the development and production of the final outcome while independently explaining choices.	A good development from designs through to the final outcome by demonstrating the ability to regularly evaluate the working process to create a good final outcome.	Good knowledge and understanding of the differing approaches relating to techniques, processes, materials and components. Confidently using these terms throughout.	
Excelling	Excellent evidence of developing a wide range of ideas using appropriate techniques and materials. Target market can be adapted to suit which can be fully explained and justified.	Excellent wide selection of the appropriate techniques, processes, materials and components in the development and production of a professional final outcome.	Excellent demonstration of knowledge and understanding with high quality, independent explanations when consistently evaluating the working process of a high quality, professional outcome.	Knowledge is excellent, can apply and demonstrate the use of technical terms. Relevant and excellent knowledge and understanding of the differing approaches relating to techniques, processes, materials, and components.	
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Self-Assessment		In this module I have learnt:	In this module I have learnt:	In this module I have learnt:	In this module I have learnt:
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		Next time I need to:	Next time I need to:	Next time I need to:	Next time I need to:



Food Preparation & Nutrition				
	Design	Make	Evaluate	Technical Knowledge
	<p><i>Research and explore to identify and understand user needs. Identify and solve design problems and understand how to reformulate problems. Develop specifications to inform the design of innovative, functional, appealing outcomes. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate a range of design ideas using a variety of presentation methods.</i></p>	<p><i>Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties.</i></p>	<p><i>Analyse the work of past and present professionals and designers to develop and broaden understanding. Investigate new and emerging technologies. Test, evaluate and refine ideas and outcomes against a specification, taking into account the user's opinion. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.</i></p>	<p><i>Understand the properties of materials and the performance of structural elements to achieve functioning solutions. Understand how more advanced mechanical systems used in their products enable changes in movement and force understand how more advanced electrical and electronic systems can be powered and used in their products. Apply computing and use electronics to embed intelligence in products that respond to inputs and control using programmable components.</i></p>
Emerging	Basic range of ideas (1 -2) and limited evidence of creativity when designing individual dishes/products related to the task.	Basic demonstration/unable to work independently when safely applying skills to some equipment and ingredients to plan, prepare and present simple dishes	Basic evidence of understanding and knowledge when evaluating practical outcomes	Knowledge is basic, no technical terms/words used. Nutrition knowledge is basic.
Developing	A limited range of ideas (2-3) Basic design skills with some evidence of creativity. No evidence of linking to target market	Limited evidence of being able to work safely and independently at times when using equipment and ingredients to plan, prepare and present simple dishes.	Limited knowledge and understanding, supported explanations. There is some evidence of knowledge being applied in the work	Knowledge is limited, some technical terms/words used. Demonstrates limited but relevant knowledge and understanding of issues relating to food choices, provenance, functions of ingredients and production is demonstrated. Limited understanding of nutrition and user needs
Securing	A good range of ideas (3 – 4) Good design skills and evidence of creativity when designing and developing individual dishes/products related to the task. There is an ability to adapt recipes to suit a target market	Safely apply a range of skills by using the correct equipment and ingredients to plan, prepare and present dishes	Good knowledge and understanding is demonstrated with good independent explanations. Good evidence of knowledge being applied in the work	Knowledge is good, confidently use technical terms/words. Relevant and good knowledge and understanding of issues relating to food choices, provenance functions of ingredients, and production is demonstrated. Knowledge of nutrition, ingredient choice and user needs is good
Excelling	An excellent range of ideas (4 -5) Excellent evidence of creativity when designing and developing individual dishes/products related to the task. There is an ability to adapt recipes to suit a target market which are fully explained and justified.	Can demonstrate to an excellent standard by safely applying a wide range of skills, using the correct equipment and ingredients to plan, prepare and present skillful dishes which are professionally presented	Excellent knowledge and understanding with high quality, independent explanations. Knowledge is consistently applied throughout the work.	Knowledge is excellent, can apply and demonstrate use of technical terms and words. Relevant and excellent knowledge and understanding of issues relating to food choices, provenance functions of ingredients and production is demonstrated and applied. Knowledge of nutrition, ingredient choice and user needs are excellent.
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Self Assessment	In this module I have learnt:	In this module I have learnt:	In this module I have learnt:	In this module I have learnt:
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3D Design		<i>Research and explore to identify and understand user needs. Identify and solve design problems and understand how to reformulate problems. Develop specifications to inform the design of innovative, functional, appealing outcomes. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate a range of design ideas using a variety of presentation methods.</i>	<i>Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties.</i>	<i>Analyse the work of past and present professionals and designers to develop and broaden understanding. Investigate new and emerging technologies. Test, evaluate and refine ideas and outcomes against a specification, taking into account the user's opinion. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.</i>	<i>Understand the properties of materials and the performance of structural elements to achieve functioning solutions. Understand how more advanced mechanical systems used in their products enable changes in movement and force understand how more advanced electrical and electronic systems can be powered and used in their products. Apply computing and use electronics to embed intelligence in products that respond to inputs and control using programmable.</i>
	Emerging	A basic understanding of how to present a 3-dimensional object so that it can be viewed from different vantage points. A basic skill in designing an object to be developed into a 3-dimensional object.	A basic understanding of the process needed to create an interesting outcome. This shows a basic ability to use the tools and material provided for the project.	A basic understanding of how to research and develop ideas from other designers and professionals. A basic consideration of the construction and refinement of ideas is shown in the evaluation.	A basic knowledge of the technical skills needed for the materials and design elements in creating the 3-dimensional outcome. A basic ability to adapt the technical components to create a more complex outcome
	Developing	Limited understanding of the different angles the 3D outcome will be viewed from. Work shows a limited understanding of creating, problem solving and finding alternative approaches to designing your three-dimensional outcome.	Limited use of demonstrated techniques to make the three-dimensional outcome. Limited use of the tools equipment and material to aid a more refined outcome to the various parts of the outcome.	Consideration of the construction and the potential refinement of ideas shows limited evaluation of three-dimensional design. Limited research into the designers and limited ideas to show a more thorough understanding of three-dimensional design.	Limited technical knowledge of the materials and attachment techniques used to construct your three-dimensional design. Limited ability to adapt certain components to create a more complex final outcome.
	Securing	This shows a good understanding of creating, problem solving and finding alternative approaches to designing your three-dimensional outcome.	The techniques for using the equipment/tools and materials to make the three-dimensional outcome is good. Good understanding of the properties of the materials being used and how to make a more complex three-dimensional form.	This work shows a good understanding from the demonstrations shown for construction and the refinement of ideas. This shows the ability to regularly evaluate the working process to create a good final outcome in three-dimensional design.	Your technical knowledge of the elements used to construct your three-dimensional design and their properties is good. Good use of the materials to show understanding of the technical knowledge.
	Excelling	This shows an excellent understanding of creating, problem solving and finding alternative approaches to designing a three-dimensional outcome. Excellent ability to experiment with design concepts to develop a complex outcome.	The techniques for using the tools and materials to make the three-dimensional outcome is excellent. The excellent quality of the final outcome shows dexterity and the ability to make a complex three-dimensional form.	This shows excellent understanding of how to evaluate work from the process of development of research through to assessment of final outcome. An excellent use of evaluation showing refinement to produce a strong outcome against the specification.	The technical knowledge of the elements used to construct the three-dimensional design and their properties is excellent. This shows an excellent understanding of the various elements used to create the final outcome.
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Graphic Design		<i>Research and explore to identify and understand user needs. Identify and solve design problems and understand how to reformulate problems. Develop specifications to inform the design of innovative, functional, appealing outcomes. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate a range of design ideas using a variety of presentation methods.</i>	<i>Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties.</i>	<i>Analyse the work of past and present professionals and designers to develop and broaden understanding. Investigate new and emerging technologies. Test, evaluate and refine ideas and outcomes against a specification, taking into account the user's opinion. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.</i>	<i>Understand the properties of materials and the performance of structural elements to achieve functioning solutions. Understand how more advanced mechanical systems used in their products enable changes in movement and force understand how more advanced electrical and electronic systems can be powered and used in their products. Apply computing and use electronics to embed intelligence in products that respond to inputs and control using programmable.</i>
	Emerging	Basic range of ideas (1 -2) relevant to the brief. Basic use of research to inform the development of ideas.	Basic design skills seen when composing your outcome. Little or no experimentation with colour, media and equipment.	Basic connections with the work of other designers. Little or no development from draft designs through to the final outcome.	Basic technical knowledge of the use of colour, for example in the use of colour temperature, complementary colours and opacities. Basic understanding of the differing approaches to designing letter forms.
	Developing	Limited range of ideas (2-3) relevant to the brief. Limited use of research to inform the development of ideas.	Limited design skills seen when composing your outcome. Limited experimentation with colour, media and equipment.	Limited connections with the work of other designers. Limited development from draft designs through to the final outcome.	Limited technical knowledge of the use of colour, for example in the use of colour temperature, complementary colours and opacities. Limited understanding of the differing approaches to designing letter forms.
	Securing	Good range of creative ideas (3-4) relevant to the brief. Good use of research to inform the development of ideas.	Good design skills seen when composing your outcome. Good experimentation with colour, media and equipment.	Good connections with the work of other designers. Good development from draft designs through to the final outcome	Good technical knowledge of the use of colour, for example in the use of colour temperature, complementary colours and opacities. Good understanding of the differing approaches to designing letter forms.
	Excelling	A wide range of complex ideas (4-5) with excellent use of visual language (appropriate use of shape, lettering, imagery and colour). Excellent use of research to inform the development of ideas.	Excellent design skills seen when composing your outcome. Excellent experimentation with colour, media and equipment. Excellent control of materials resulting in a sophisticated outcome.	Excellent connections with the work of other designers. Excellent development from draft designs through to the final outcome. Knowledge is consistently applied throughout the work.	Excellent technical knowledge of the use of colour, for example in the use of colour temperature, complementary colours and opacities. Excellent understanding of the differing approaches to designing letter forms.
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	Next time I need to:				