Curriculum Skills and Progression Map

DESIGN TECHNOLOGY: AGE RELATED STATUTORY COVERAGE		
EYFS	**KEY STAGE ONE LEARNING**	**KEY STAGE TWO LEARNING**
• Understands that media can be combined to create new effects. • Constructs with a purpose in mind, using a variety of resources. • Uses simple tools and techniques competently and appropriately. • Selects appropriate resources and adapts work where necessary. • Selects tools and techniques needed to shape, assemble and join materials they are using. • Children safely use and explore a variety of materials, tools and techniques, experimenting with design, form and function. • Create simple representations of objects.	**DESIGN** • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **MAKE** • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, textiles, ingredients according to their characteristics **EVALUATE**	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **MAKE** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. **EVALUATE** • Investigate and analyse a range of existing products

• Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. **DESIGN AND DEVELOP** • Talk about what they want to make **MAKING** • Use a variety of tools and materials to make models. **PRODUCT AND EVALUATION** • Be excited about what they have made	• Explore and evaluate a range of existing products • Evaluate ideas and products against design criteria **TECHNICAL KNOWLEDGE** • Build structures, exploring how they can be made stronger, stiffer and more stable • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. **COOKING AND NUTRITION** • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from.	• Evaluate ideas and products against their own design criteria and consider the views of others to improve their work • Understand how key events and individuals have helped shape the world **TECHNICAL** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control products. **COOKING AND NUTRITION** • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

Curriculum Skills and Progression Map

DESIGN TECHNOLOGY: VOCABULARY MAP				
	Design and Develop	**Making**	**Product**	**Evaluation**
EYFS	• Plan • Draw • Ideas • Design	• Make • Build • Combine • Join • Shape • Tools	• Complete • Product • Final	• Change • Like • Dislike • Next time • Better • Worse • Different • Instead

DESIGN TECHNOLOGY: VOCABULARY MAP										
	Design	**Technical Knowledge & Making**			**Cooking and Nutrition**		**Evaluate**			
KS1	• Plan • Prepare • Design • Materials • Ideas • Use • Model • Development • Market Research • Survey • Template	• Fast • Slow • Faster • Slower • Up • Down • Turn • Wind up • Design • Draw • Sketch • Tools	• Fix • Glue • Attach • Features • Brick • Wood • Stone • Cloth • Metal • Foam • Felt • Paper	• Tissue • Newspaper • Cardboard • String • Wool • Clay • Scissors • Glue • Tape • Cut • Stick • Decorate	• Healthy • Unhealthy • Source • Fruit • Vegetables • Clean • Safe • Dirty	• Unsafe • Amount • Ingredients • Recipe • Weight • Nutrients • Vegetarian • Dietary requirements	• Change • Improve • Prefer • Useful • Unsuccessful • Future • Progress • modify	• Alter • Adapt • Original • Finished article • Evaluate • Graphics		
KS2	• Plan • Organise • Prototype • Initial ideas • Criteria • Diagrams • Labels • Annotate • Brief	• Product • Consumer • Customer • Target audience • Purpose • Application • Constraints • Client	• Materials • Mould • Liquid • Solid • Form • Shape • Adhesive • Lattice	• Mass-produce • Hand-made • Packaging • Presentation • Machine made • Dimensions • Durable	• Healthy • Unhealthy • Balanced • Vitamins • Disease • Nutrition • Healthy eating • Hygiene • Diet	• Cross contamination • Grams • Storage • Presentation • Taste • Texture • Flavour • Disinfect • Bacteria	• Assess • Edit • Improve • Alter • Outcome • Develop • Test • Analyse	• Effective • Fit for purpose • Design criteria • Alternatives • Models • Quality • Function • Functionality		

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 1 – Design Technology		
Mechanisms *Cycle A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A* *Cycle B*
DESIGN • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **TECHNICAL KNOWLEDGE** • Build structures, exploring how they can be made stronger, stiffer and more stable • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**DESIGN** • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **MAKE** • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, **textiles**, ingredients according to their characteristics	**DESIGN** • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **COOKING AND NUTRITION** • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from.
• Describe what they want to do using pictures and words • Make lists of materials they will need • Can they think of some ideas of their own? • Can they explain what they are making? • Can they plan an outcome through pictures with labels? • Can they explain their ideas orally? • Can they make a product which moves? • Can they identify the key features of an existing product? • Can they say why they have chosen moving parts? • Do they know how some moving objects work? • Can they use tools safely? • Can they explain which tools are they using and why?	• Describe what they want to do using pictures and words • Make lists of materials they will need • Can they think of some ideas of their own? • Can they explain what they are making? • Can they plan an outcome through pictures with labels? • Can they arrange pieces of the construction before building? • Can they make a structure/model using different materials? • Can they cut materials using scissors or a knife (often with help)? • Can they join two materials together, often with glue. • Make simple models, not necessarily with a purpose • Can they explain which tools are they using and why? • Can they use tools safely? • **Can they select suitable pre-cut fabrics?** • **Can they join textiles together?** • **Can they express preferences when choosing fabrics?**	• Describe what they want to do using pictures and words • Make lists of materials they will need • Can they explain what they are making? • Can they identify healthy and unhealthy meals? • Can they make a meal with a variety of healthy foods in? • Can they understand where food comes from? • Do they now the benefits of fruit and vegetables. • Do they know about basic hygiene and safety
EVALUATE – ALL MODULES		
EVALUATE • Explore and evaluate a range of existing products • Evaluate ideas and products against design criteria	• Can they describe the materials using different words? • Use simple terms to talk about their own and others' work • Can they describe how their product works? • Can they identify success and next steps?	

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 2 – Design Technology		
Mechanisms *Cycle A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A* *Cycle B*
DESIGN • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **TECHNICAL KNOWLEDGE** • Build structures, exploring how they can be made stronger, stiffer and more stable • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**DESIGN** • Design purposeful, functional, appealing products based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT and, where appropriate, information and communication technology **MAKE** • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, **textiles**, ingredients according to their characteristics	**COOKING AND NUTRITION** • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from.
• Can they generate ideas through comparing existing products? • Can they describe their design by using pictures, diagrams, and words? • Can they say how the product will be useful to the user? • Can they start to describe how a commercial product works? • Can they choose the most appropriate tools and materials and explain their choices? • Can they follow basic safety rules? • Can they join materials together as part of a moving product? • Can they explain how different parts move? • Can they use wheels, slides and levers in plans? • Can they talk about how moving objects work	• Can they generate ideas through comparing existing products? • Can they describe their design by using pictures, diagrams, and words? • Can they say how the product will be useful to the user? • Can they start to describe how a commercial product works? • Do they use their knowledge of some working characteristics of materials when designing? • Can they select tools for folding, joining, rolling? • Can they join multiple materials together? • Can they use a simple template for cutting out? • Can they use simple finishing techniques? • **Can they measure an amount of a textile and cut it out?** • **Can they join textiles together to make a product, using techniques such as stitching?** • **Can they cut textiles accurately?** • **Can they explain why they chose a certain textile?**	• Can they generate ideas through comparing existing products? • Can they describe their design by using pictures, diagrams, and words? • Can they understand and use the terms ingredient and component? • Can they use simple scales or balances? • Can they understand main rules of food hygiene?
EVALUATE – ALL MODULES		
EVALUATE • Explore and evaluate a range of existing products • Evaluate ideas and products against design criteria	• Can they assess how well their product works? • Can they use like and dislike when evaluating or describing? • Do they recognise what they have done well and talk about what could be improved? • Can they seek out the views and judgements of others? • Can they predict how changes might improve the finished product? • Have they used digital photography to present design or finished work?	

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 3 – Design Technology		
Mechanisms *Cycle A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A* *Cycle B*
DESIGN • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **TECHNICAL** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control products.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **MAKE** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, **textiles** and ingredients, according to their functional properties and aesthetic qualities.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **COOKING AND NUTRITION** • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
• Can they plan their design, using diagrams and labels? • Can they plan the equipment/ tools needed and give reasons why? • Can they start to order the main stages of making their product? • Can they identify a design criteria and establish a purpose/ audience for their product? • Can they use what they know about the properties of materials to plan their ideas? • Can they make increasing use of ICT to plan ideas? • Do they recognise that designs must meet a range of needs? • Apply what they know about mechanisms to create movement when planning and designing? • Can they use equipment and tools accurately and safely? • Can they select the most appropriate materials, tools and techniques to use? • Can they manipulate materials using a range of tools and equipment (often with support)? • Can they measure, cut and assemble with increasing accuracy? • Can they work out how to make models stronger?	• Can they plan their design, using diagrams and labels? • Can they plan the equipment/ tools needed and give reasons why? • Can they start to order the main stages of making their product? • Can they identify design criteria and establish a purpose/ audience for their product? • Can they use what they know about the properties of materials to plan their ideas? • Can they make increasing use of ICT to plan ideas? • Do they recognise that designs must meet a range of needs? • Can they measure and cut out using centimetres? • Can they choose tools and equipment which are appropriate for the job? • Do they prepare for work by assembling components together before joining? • Can they use scoring and folding for precision? • Can they work out how to make models stronger?	• Can they plan their design, using diagrams and labels? • Can they plan the equipment/ tools needed and give reasons why? • Can they use what they know about the properties of materials to plan their ideas? • Can they begin to select their own ingredients when cooking or baking? • Can they present food in an appealing way? • Do they understand safe food storage? • Can they weigh in grams?

Curriculum Skills and Progression Map

• Can they make a product which uses mechanical components? • Can they use a range of components (e.g. levers, linkages and pneumatic systems)?	• Can they alter and adapt materials to make them stronger? • Can they combine a number of components together in different ways? • Do they make the finished product neat and tidy? • Can they use a range of techniques to shape and mould materials? • **Can they join textiles of different types in a range of ways?** • **Can they choose textiles both for their appearance and also qualities?** • **Can they begin to use a range of simple stitches?**	
EVALUATE – ALL MODULES		
EVALUATE • Investigate and analyse a range of existing products • Evaluate ideas and products against their own design criteria and consider the views of others to improve their work • Understand how key events and individuals have helped shape the world	• Can they start to think about their ideas as they make progress? • Are they willing to make changes if this helps them to improve their work? • Can they assess how well their product works in relation to the purpose? • Can they explain how they could change their design to make it better? • Can alter and adapt original plans following discussion and evaluation? • Can they recognise what has gone well, but suggest further improvements for the finished article? •	
COMPUTER-AIDED DESIGN		
DESIGN • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **computer-aided design**	• With support, can they use IT to research and plan their design? • With support, can they use digital photography to present, design or finish work?	

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 4 – Design Technology		
Mechanisms *Cycle A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A* *Cycle B*
DESIGN • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **TECHNICAL** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control products.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **MAKE** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **COOKING AND NUTRITION** • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
• Can they create a final design for their product based on initial ideas and revisions, based on existing ideas? • Can they create a detailed plan considering their target audience, design criteria and intended purpose? • Can they collect and use information to generate ideas? • Can they consider the way the product will be used when planning? • Do they understand designs must meet a range of criteria? • Can they make ongoing sketches and annotations and constraints? • Can they think ahead about the order of their work? • Can they use a simple circuit and add components to it? • Can they add electricity to create motion or make light? • Can they make a product which uses both electrical and mechanical components? • Do they understand how some properties can be used – e.g. waterproof? • Can they select and use appropriate equipment and tools accurately and safely?	• Can they create a final design for their product based on initial ideas and revisions, based on existing ideas? • Can they create a detailed plan considering their target audience, design criteria and intended purpose? • Can they collect and use information to generate ideas? • Can they consider the way the product will be used when planning? • Do they understand designs must meet a range of criteria? • Can they make ongoing sketches and annotations and constraints? • Can they think ahead about the order of their work? • Can they measure accurately to build effective structures? • Can they experiment with a range of techniques to increase stability in a structure? • Can they use finishing techniques, showing an awareness of audience? (e.g. sanding, varnishing, glazing) • Can they consider which materials are fit for purpose and join them appropriately?	• Can they create a final design for their product based on initial ideas and revisions, based on existing ideas? • Can they collect and use information to generate ideas? • Can they think ahead about the order of their work? • Can they select their own suitable ingredients when cooking or baking? • Do they present food in an appealing way? • Can they understand and explain safe food storage? • Can they evaluate food by taste, texture, flavour etc?

Curriculum Skills and Progression Map

• Can they explain why they have selected materials, tools and techniques to use? • Can they independently manipulate materials using a range of tools and equipment? • Can they measure, cut and assemble with accurately? • Can they make a product which uses mechanical components? • Can they use a range of components (e.g. levers, linkages and pneumatic systems)? • Do they understand how wheels, axles, turning mechanisms, hinges and levers all work together?	• Can they devise a template or pattern for their product? • Can they increasingly model their ideas before making? • Can they measure accurately to centimetres and grams? • Can they use permanent and temporary fastenings to join? • Join with a greater range of techniques – e.g. staples • Strengthen joins and corners in a variety of ways • Can they use equipment and tools with increased accuracy and safety?	
EVALUATE – ALL MODULES		
EVALUATE • Investigate and analyse a range of existing products • Evaluate ideas and products against their own design criteria and consider the views of others to improve their work • Understand how key events and individuals have helped shape the world	• Can they talk about what they like and dislike, giving reasons? • Can they develop their designs through their own reflection and the evaluation of others? • Can they carry out tests before making improvements? • Can they think about their ideas as they progress and make changes to improve their work? • Can they assess how well their product works in relation to the design criteria and the intended purpose? • Can they explain how they could improve their design and how their improvement would affect the original outcome?	
COMPUTER-AIDED DESIGN		
DESIGN • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **computer-aided design**	• Can they use IT, independently, to research and plan their design? • Can they use digital photography to present, design or finish work?	

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 5 – Design Technology		
Mechanisms *Cycle: A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A* *Cycle B*
DESIGN • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **TECHNICAL** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control products.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **MAKE** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, **textiles** and ingredients, according to their functional properties and aesthetic qualities.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **COOKING AND NUTRITION** • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
• Can they (where relevant) survey their target audience and use this to generate ideas? • Can they take a user's view into account when designing? • Can they produce a detailed step-by-step plan for their design method? • Can they suggest some alternative designs and compare the benefits and drawbacks to inform the design process and outcome? • Can they use sketches to show other ways of doing things – and then make choices between designs? • Can they make up a prototype first? • Can they make more complex designs to include belts and pulleys, and a combination of other mechanisms? • Can they incorporate hydraulics and pneumatics? • Can they make up a prototype first?	• Can they (where relevant) survey their target audience and use this to generate ideas? • Can they take a user's view into account when designing? • Can they produce a detailed step-by-step plan for their design method? • Can they suggest some alternative designs and compare the benefits and drawbacks to inform the design process and outcome? • Can they use sketches to show other ways of doing things – and then make choices between designs? • Can they make up a prototype first? • Can they measure and cut precisely to millimetres? • Can they make stable and strong joins to stand the test of time? • Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience?	• Use proportions when cooking, by doubling and halving recipes • Can they modify a recipe and explain why they have changed it? • Can they meet an identified need – e.g. a meal for an older person – by selecting suitable ingredients? • Can they work in a safe and hygienic way?

	• Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? • Can they use a range of joining techniques? • Can they demonstrate that their product is strong and fit for purpose? • **Can they consider the audience when choosing textiles?** • **Can they devise a template or pattern for their product?** • **Are their measurements accurate enough to ensure precision?**	

EVALUATE – ALL MODULES	
EVALUATE • Investigate and analyse a range of existing products • Evaluate ideas and products against their own design criteria and consider the views of others to improve their work • Understand how key events and individuals have helped shape the world	• Can they continuously check that their design is effective and fit for purpose? • Can they assess how well their product works in relation to the design criteria and the intended purpose and suggest improvements? • Can they evaluate appearance and function against the original design criteria? • Can they identify what is working well and what might be improved – and make choices from several alternatives? • Refine the quality of the finished product, including making annotations on the design • Can they increasingly use testing to improve models and finished products? • Can they make improvements from design suggestions? • Are they motivated to refine and further improve their product?
COMPUTING	
DESIGN • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **computer-aided design**	• Can they use IT to research and evaluate similar products before using this to aid their design process? • Can they use computers to edit and improve their work?

Curriculum Skills and Progression Map

Skills Map – Design Technology		
Year 6 – Design Technology		
Mechanisms *Cycle A* *Cycle B*	**Construction & Textiles** *Cycle A* *Cycle B*	**Cooking** *Cycle A.* *Cycle B*
DESIGN • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **TECHNICAL** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control products.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **MAKE** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, **textiles** and ingredients, according to their functional properties and aesthetic qualities.	**DESIGN** • Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **COOKING AND NUTRITION** • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
• Can they use a range of information to inform their design? • Can they use market research to inform plans? • Can they work within constraints? • Can they justify their plan to someone else? • Can they keep cost constraints in mind when selecting materials in design? • Do they use their knowledge of science and art when designing? • Can they draw scaled diagrams with increasing use of ratio? • Can they calculate the amount of materials needed use this to estimate cost? • Have they considered the use of the product when selecting materials? • Can they make up a prototype first? • Can they create designs including hydraulics and pneumatics when where appropriate?	• Can they use a range of information to inform their design? • Can they use market research to inform plans? • Can they work within constraints? • Can they justify their plan to someone else? • Can they keep cost constraints in mind when selecting materials in design? • Do they use their knowledge of science and art when designing? • Can they draw scaled diagrams with increasing use of ratio? • Can they calculate the amount of materials needed use this to estimate cost? • Have they considered the use of the product when selecting materials? • Can they measure and cut out in precise detail, and make sure that finished products are carefully finished?	• Can they consider culture and society in their food choices? • Can they keep cost constraints in mind when selecting ingredients? • Can they calculate the amount of ingredients needed use this to estimate cost? • Can they use proportions when cooking extending beyond doubling and halving recipes? • Can they begin to write their own recipes based on recipes they have previously tried? • Can they make choices/changes to recipes and justify their decision?

Curriculum Skills and Progression Map

• Can they use different kinds of circuits in their product to improve it? • Can they incorporate a switch into their product? • Can they incorporate hydraulics and pneumatics?	• Can they make separate elements of a model, with improvements where necessary, before combining into the finished article? • Can they produce a simple instruction manual or handbook for their product? • Can they use a range of joining techniques? • Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? • Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? • **Can they consider the audience when choosing textiles?**	
EVALUATE – ALL MODULES		
EVALUATE • Investigate and analyse a range of existing products • Evaluate ideas and products against their own design criteria and consider the views of others to improve their work • Understand how key events and individuals have helped shape the world	• How well do they test and evaluate their final product? • Can they assess and explain whether it is fit for purpose? • Can they describe and explain what would improve it and why? • Can they discuss whether different resources have improved their product? • Can they explain if they need more or different information to make it even better? • Can they test and evaluate commercial products, understanding how this information supports their own designs? • Can they evaluate a range of different sources of information such as advertising and handbooks? • Can they demonstrate that their product is strong and fit for purpose? • Are they motivated to refine and further improve their product	
COMPUTER-AIDED DESIGN		
DESIGN • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **computer-aided design**	• Can they research products online? • Can they create a survey on the computer to research their product?	