



Long Term Progression in D&T Overview 2021-2022

To see how Design & Technology will be taught to each year group at Lindow Community Primary School in 2021/22 please click on the appropriate button.

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Reception

ELGs	<p>Expressive Arts and Design (Exploring and Using Media and Materials) Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Expressive Arts and Design (Being Imaginative) Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.</p> <p>Physical Development (Moving and Handling) Children handle equipment and tools effectively, including pencils for writing.</p>		
Term & theme	Autumn Cooking- Gingerbread man	Spring Media and Materials – Fabric hearts	Summer Making a structure – Trap for Supertato
Big question/key concept	Can you bake your very own gingerbread man?	Can you create a fabric love heart decoration for Mothers’ Day?	Can you make a trap to catch Supertato?
Prior knowledge	understanding of the tale of the gingerbread man understanding of how to keep safe in the kitchen – what not to touch and to wash hands	understanding of the shape of a love heart	understanding of how to construct a model using junk modelling equipment understanding of trial and error
Prior Skills	understanding of how to use a rolling pin to flatten the mixture understanding of how to spoon ingredients	understanding of how to hold scissors	understanding of how to tear, rip and fasten cardboard and paper using masking tape and glue
Key vocabulary	cook, roll, mix, bake, stir, ingredients	fabric, material, cut, stick, fasten	glue, stick, cut, measure
Statutory Requirements	<p>Expressive Arts and Design (Being Imaginative) Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.</p> <p>Physical Development (Moving and Handling) Children handle equipment and tools effectively, including pencils for writing.</p>	<p>Expressive Arts and Design (Exploring and Using Media and Materials) Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Physical Development (Moving and Handling) Children handle equipment and tools effectively, including pencils for writing.</p>	<p>Expressive Arts and Design (Exploring and Using Media and Materials) Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Physical Development (Moving and Handling) Children handle equipment and tools effectively, including pencils for writing.</p>
Skills covered	preparing, measuring and mixing ingredients, baking using a recipe	cutting and fastening two pieces of material together	junk modelling with a purpose to create an end product
End Point	Children work in small groups alongside an adult to understand a simple recipe. They then measure out and mix the ingredients together before baking to create their own gingerbread man.	The children select fabric colour and cut it to the shape of a heart before stuffing it and fastening it together to make a love heart decoration for someone on Mothers’ Day.	The children build their own trap to catch Supertato, editing and improving it as they go to make it stronger and more effective.

Year One			
Term & theme	Autumn Moving Pictures Traditional Tales	Spring Our Fabric Faces	Summer Dips and Dippers
Big question/key concept	Can you create a moving picture of a traditional fairy tale?	Can you design and create a fabric face?	Can you prepare a feast of dips and dippers following safe and hygienic kitchen rules?
Prior knowledge	understanding of traditional fairy tales	understanding of the structure of a face and recalling an image from their memory.	understanding of safe and hygienic kitchen rules. To be able to listen and share ideas with peers.
Prior Skills	PD – Gross motor skills - Demonstrate strength, balance and coordination when playing. PD – Finer motor skills - Use a range of small tools, including scissors, paint brushes and cutlery as well as beginning to show accuracy and care when drawing.	PD – Finer motor skills - Use a range of small tools, including scissors, paint brushes and cutlery EA&D - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.	EA&D - Share their creations, explaining the process they have used. PD – Finer motor skills - Use a range of small tools, including scissors, paint brushes and cutlery as well as beginning to show accuracy and care when drawing.
Key vocabulary	explore, evaluate, product, mechanism, level, wheel, decisions, design, sketch, evaluate, criteria	fabrics, materials, shape, attach, template, tools	balance, variety, food groups, healthy, appealing
Statutory Requirements	Design- A, B, C, F, G Make- A, B, C, E, H Evaluate- A, B, D, E, F Technical Knowledge- B, C	Design- C, E, F Make- B, C, D, G, H, I, J, K Evaluate- A, B, C, F Technical Knowledge- B	Design- B, C, F, G Make- A, B, C, D, E, H, L Evaluate- A, B Cooking and Nutrition-A, D, E, F
Skills covered	Children decorate a partitioned wheel with pictures of characters from traditional tales. They then cut the wheel out. As an extra challenge, children can turn the wheel into a moving mechanism.	Children are asked to investigate their homes looking specifically for objects made from fabric. Once found, they are invited to closely look at them and feel their fabric. Children are then asked to name the fabric that they are made out of.	This Dips and Dippers unit will teach your class about good food hygiene rules and using kitchen equipment to prepare food safely. Children will apply these skills when making and evaluating a healthy dip and dippers.
End Point	All children should be able to: • Explore an existing product. • Draw a simple design. • Make a picture which has at least one moving mechanism. • Start to understand what design criteria is used for. • Evaluate what they did well on their product.	All children should be able to: • Create a template. • Create a simple design to explain what they intend to do. • Create a fabric face with support by joining pieces of fabric together and add features using appropriate materials and techniques and introduce a running stitch.	All children should be able to: • Explain ideas about how to eat a healthy and varied diet. • Give a simple evaluation of a product by explaining their likes and dislikes. • Use kitchen equipment safely and prepare dishes.

Year Two			
Term & theme	Autumn Pirate Paddy's Packed Lunch Problems	Spring Fabric Bunting	Summer Sensational Salads
Big question/key concept	Can you create a snack for Pirate Paddy's lunch box?	Can you work together to create some brilliant bunting?	Can you make a sensational salad?
Prior knowledge	Y1 – explore existing product	Y1 – join fabrics together with support	Y1 – know about healthy and varied diet Y1 – use kitchen equipment safely (teaspoons, table spoons and bowls)
Prior Skills	Y1 - Cutting, colouring and creating a moving mechanism	Y1 - Select and evaluate fabric textures and be able to attach pieces of fabric with glue	Y1 - Be able to control using spoons to scoop and to understand how to hold a bowl when stirring or mixing
Key vocabulary	existing product, mechanism, equipment, evaluate, strong, stiff, stable, waterproof	running stitch, suitable products	fruit, vegetable, varied diet, root vegetables, fish, sourced
Statutory Requirements	Design- A, B, F, G Make- B, C, D, H Evaluate- A, B, C, E, F, G Technical Knowledge- A, B Cooking and Nutrition-	Design- D, E, G Make- A, B, C, E, H Evaluate- A, B, D, E, F Technical Knowledge-B, C Cooking and Nutrition-	Design- Make- A, B, D, H, L Evaluate- A, B Technical Knowledge- Cooking and Nutrition- A, B, C, D, E, F
Skills covered	Children learn to make their own iced biscuits to give to the pirates for lunch. They are given a simple recipe to follow. As an extra challenge, children can pipe sea themed pictures onto the biscuits.	children learn how to work with fabric. Firstly, they evaluate a range of existing bunting. Then they use the design criteria and a graphics program to create/ design a template. Next, they use felt to create, cut and use a simple running stitch. Children then explore different fabrics to enhance their designs. Finally, they evaluate their product	Children learn about peeling, zesting, cutting safely and applying these skills when preparing healthy dishes. Children will learn key information about healthy eating and where their food comes from. They will gain some practical ideas about ingredients that can be combined to make interesting and healthy salads.
End Point	All children should be able to: • recognise the positives about an existing product and any problems; • draw a simple design; • with support, build a structure for their lunch box; • test their own product.	All children should be able to: • Judge existing products on a simple scale. • Use a graphics program to create a simple design. • Work with support to cut out a fabric shape. • Start to demonstrate how to create a basic stitch. • Decorate a piece of fabric	All children should be able to: • Know how to eat a healthy and varied diet. • Use the basic principles of a healthy diet to prepare dishes. • Follow a simple recipe with some guidance. • Work with close adult supervision to use measuring spoons, zesters and juicers to prepare dishes. • Understand that some food is grown and some food is caught.

Year Three			
Term & theme	Autumn Mechanical Posters	Spring Let's Go Fly A Kite	Summer Edible Garden
Big question/key concept	Can you design a mechanical poster with a moving lever and linkage?	Can you design a kite?	Can we grow and cook with edible produce?
Prior knowledge	Y2 – test their own product and draw simple designs when planning	Y2 – build a structure with support and recognise positives about existing products	Y2 – healthy and varied diet. use measuring spoons, zesters and juicers with support and understand food can be grown and caught.
Prior Skills	Y1 - Cutting, colouring and creating a moving mechanism Y2- with support, build a structure	Y1 - join pieces of fabric together and add features using appropriate materials and techniques Y2- Work with support to cut out a fabric shape.	Y2- Follow a simple recipe with some guidance. Y2 - Work with close adult supervision to use measuring spoons, zesters and juicers to prepare dishes
Key vocabulary	mechanical systems, levers, linkages, prototypes	components, design criteria, supportive frame	herbs, balanced meal, nutritious, seasonal
Statutory Requirements	Design- A, B, D, E, G, H, J, K Make- A, B, D, E, G, H, K Evaluate- A, C, D Technical Knowledge- C, E, F Cooking and Nutrition-	Design- A, B, E, J Make- A, B, D, E, F, G, H, K Evaluate- A, B, C, D, E Technical Knowledge- A, B Cooking and Nutrition-	Design- Make- A, D Evaluate- Technical Knowledge- Cooking & Nutrition- A, B, C, D, E, F, G, H, I, J
Skills covered	Children develop their understanding of mechanical systems. Following instructions on how to make different types of lever and linkage mechanisms gives children experience and information to draw on when developing their own ideas. They sketch a design based on their ideas, make a prototype, and then create their 'Lever and Linkage Poster' using the context of recycling. Finally, children will evaluate their finished product.	Children develop their understanding of frame structures and how they can be strengthened and stiffened. Children will discover information about a key event involving a kite that helped shape the world. Children will gain knowledge and understanding about the parts and shapes of kites. This will help them when designing and making their own kites. Finally, children will test and evaluate their kites against design criteria they have created.	children learn where and how a variety of ingredients are grown. Firstly, children will learn how to plant seeds and care for their plants so they yield produce that can be used in their cooking. They will learn how to cook with the ingredients they are growing; following recipes and using different kitchen equipment.
End Point	All children should be able to: <ul style="list-style-type: none"> • Explore mechanical systems. • Draw a simple annotated design. • Start to generate ideas for design criteria. • Make a prototype and finished poster which has at least one lever/ linkage mechanism. • Evaluate what they did well on their product and things they could improve 	All children should be able to: <ul style="list-style-type: none"> • Explain how Homan Walsh used a kite to help build the Niagara Falls Bridge. • Use research into the shape and parts of kites to develop simple design criteria. • Build simple frame structures. 	All children should be able to: <ul style="list-style-type: none"> • Understand the eatwell plate and know which foods they should be eating more and less of. • Understand and know where and how a variety of ingredients are grown. • Prepare ingredients safely and hygienically using appropriate kitchen utensils

Year Four			
Term & theme	Autumn Juggling Balls	Spring The Great Bread Bake Off	Summer Battery Operated Lights
Big question/key concept	Can you design your own juggling balls for the Leon and The Place Between circus?	Can you design and bake your own bread creation?	Can you design your own battery operated light with a circuit controlled by a switch?
Prior knowledge	Y2 – build a structure with support and recognise positives about existing products and start to demonstrate how to create a basic stitch	Y3 - Start to generate ideas for design criteria and Prepare ingredients safely and hygienically using appropriate kitchen utensils	Y3 - Start to generate ideas for design criteria and which has at least one lever/ linkage mechanism. Y3- Evaluate what they did well on their product and things they could improve
Prior Skills	Y2- Start to demonstrate how to create a basic stitch Y1- join pieces of fabric together	Y2- Follow a simple recipe with some guidance. Y2 - Work with close adult supervision to use measuring spoons, zesters and juicers to prepare dishes Y3 - Prepare ingredients safely and hygienically using appropriate kitchen utensils	Y1 - Make a picture which has at least one moving mechanism Y3 - Make a prototype and finished poster which has at least one lever/ linkage mechanism.
Key vocabulary	product analysis, tie-dye, running stitch, template, hem, most functional stitch	products' characteristics, analysis, innovative, appealing products	circuits, switches, electrical systems, functional and aesthetic properties
Statutory Requirements	Design- A, B, C, F, H, K Make- A, B, D, E, J, K Evaluate- C, D Technical Knowledge- Cooking and Nutrition-	Design- E, F, J Make- A, D, G Evaluate- A, B, C, D Technical Knowledge- Cooking and Nutrition- B, D, H, I	Design- C, E, J, K Make- A, B, D, E, H Evaluate- D, E Technical Knowledge- A, D Cooking and Nutrition-
Skills covered	Children will start by exploring and evaluating different juggling balls. Children are then given a design brief, asking them to design and make a circus themed juggling ball. A hemming and overcast stitch will be introduced during this unit. Children will learn about decoration techniques; getting the chance to use tie-dye and fabric paints. Finally, when they have completed the making of their juggling ball, children will evaluate their product against design criteria.	Children will gain an insight into the history of bread production, then investigate and evaluate existing bread products. They will create design criteria which will be referred to when designing, making and evaluating their own bread product. Children use a range of skills and techniques using simple kitchen tools and measuring equipment, they will learn how to knead dough correctly and the technique of proving bread.	children will develop understanding about series and parallel circuits and different types switches. They will then be given the chance to apply their knowledge about electric circuits in a purposeful way by designing and making a battery-operated light which will be controlled by a homemade switch. Children will decide upon the design criteria for the light by considering who will use it, where it will be used and what for. Finally, children will complete a detailed evaluation of their final product.
End Point	All children should be able to: • Investigate a range of existing products.	All children should be able to: • Design and make a bread product with support and guidance.	All children should be able to: • Explain how technology has helped shaped the world we live in.

	<ul style="list-style-type: none">• Develop a design based around a design criteria.• Use appropriate techniques to decorate fabric.• With support create a hem using a running stitch and join fabrics using an overcast stitch	<ul style="list-style-type: none">• Explain why choices were made after discussion with the teacher.• Have demonstrated some skills when making the product	<ul style="list-style-type: none">• Explore and make a series and parallel circuit and follow instructions to make a switch.• Draw a simple annotated design.• Write their own simple design criteria.• Make a product which contains a working circuit to light a bulb.• Use a series of given questions to evaluate their product
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Year Five			
Term & theme	Autumn Global Food	Spring Programming Adventures	Summer Marbulous Structures
Big question/key concept	can you create some traditional dishes from around the world?	Can you design and create a map for a floor robot to move on?	Can you design and create a marble run?
Prior knowledge	Y2 – healthy and varied diet. use measuring spoons, zesters and juicers	Y3 - Start to generate ideas for design criteria and which has at least one lever/ linkage mechanism. Y4 - Draw a simple annotated design	Y2 – build a structure with support and recognise positives about existing products Y3 - Build simple frame structures.
Prior Skills	Y3 - Prepare ingredients safely and hygienically using appropriate kitchen utensils	Y1 – join fabrics together with support Y2 - Work with support to cut out a fabric shape	Y4 - Use a series of given questions to evaluate their product
Key vocabulary	seasonality, global produce, food groups, global diets, staple food, sweet and savoury dishes	annotated sketches, cross-sectional and exploded diagrams prototypes, pattern pieces,	reinforce, commercially bought products
Statutory Requirements	Design- Make- E Evaluate- B, C Technical Knowledge- Cooking and Nutrition- A, B, D, E, F, I, J	Design- A, C, E Make- C, E, I Evaluate- Technical Knowledge- B, D Cooking and Nutrition-	Design- Make- B, C, E, G, H, I, J Evaluate- A, B, C Technical Knowledge- A Cooking and Nutrition-
Skills covered	The first part of the unit provides an opportunity for children to learn where in the world a variety of ingredients flourish. They will then build on their understanding of the eatwell plate, placing different ingredients into the correct food groups. This will develop a deeper understanding that although food can be extremely varied, it still comes under the same basic food groups. Children will then have the chance to learn some basic and advanced cooking techniques, they will apply these skills when making some traditional dishes from different countries.	Children will apply their understanding of computing to program a floor robot. They will explore a range of adventure maps and use these to create original designs. As a group, they will research how floor robots move along different types of materials and use this knowledge to create obstacles squares. Children will use appropriate joining methods to make a scale adventure map. They will test and evaluate the effectiveness of another group’s obstacle squares.	children develop their understanding of more complex free standing structures and how they can be strengthened and reinforced. Children will gain knowledge and understanding about how to join and shape materials. Children will then apply these skills, using an iterative design process, to create their marble runs. Finally, children will test and evaluate their marble runs against design criteria.
End Point	All children should be able to: • Name some varied ingredients and say which part of the world they come from. • Explain the different food groups on the eatwell plate. • Follow a simple recipe. • Use some basic food skills, such as grating and chopping, which enable them to prepare a variety of simple savoury dishes	All children should be able to: • understand how a floor robot moves; • program it accurately to move along a given route; • explore and select from a range of different materials to create obstacle squares.	All children should be able to: • Explore existing free standing structures and explain what gives them strength, reinforcement and stability. • Select tools and equipment to join card together. • Design and build a simple marble run. • Improve their work

Year Six			
Term & theme	Autumn Automata Animals	Spring Super Seasonal Cooking	Summer Felt Phone Cases
Big question/key concept	Can you use different materials and tools to create a moving animal with a cam mechanism?	Can you design and create your own seasonal, healthy, balanced meal?	Can you use a variety of stitches to design and create your own phone case?
Prior knowledge	Y5 - explore and select from a range of different materials	Y2 –understand food can be grown and caught. Y5 - Use some basic food skills, such as grating and chopping. Explain the different food groups on the eatwell plate.	Y1 - join fabrics together with support Y2 - Work with support to cut out a fabric shape Y4 - Develop a design based around a design criteria. Use appropriate techniques to decorate fabric.
Prior Skills	Y2 - Work with support to cut out a fabric shape. Y3 - Start to generate ideas for design criteria and which has at least one lever/ linkage mechanism.	Y5 - Follow a simple recipe Y5 - Use some basic food skills, such as grating and chopping, which enable them to prepare a variety of simple savoury dishes	Y4 - With support create a hem using a running stitch and join fabrics using an overcast stitch Y4 - Use a series of given questions to evaluate their product
Key vocabulary	fit for purpose products, cam mechanisms	seasonality, global produce, food groups, global diets, staple food, sweet and savoury dishes seasonality in the UK, reared, caught, processed, protein, storing food	embellishment, decorative design, fastenings
Statutory Requirements	Design- A, D, E, H Make- A, B, C, E, F, G, H, J, M Evaluate- B, C Technical Knowledge- Cooking and Nutrition-	Design- E Make- E Evaluate- C Technical Knowledge- Cooking and Nutrition- A, B, C, D, E, F, G, H, I	Design- A, C, E, F Make- A, C, D, E, F, I, K, L Evaluate- B, C Technical Knowledge- C Cooking and Nutrition-
Skills covered	Children learn about controlling movement with a cam mechanism as part of an automata animal. They develop their designing skills through using information sources to research ideas about animals which are then incorporated into the design criteria and designs. They make a simple cam mechanism to formulate an understanding of how different shaped cams can be used to produce different movements. Children extend their making skills by developing techniques in cutting, shaping and joining to combine	The first part of the unit provides an opportunity for children to learn where, when and how a variety of ingredients are grown, reared, caught and processed. Children will then have the chance to sample some spring seasonal food before designing their own balanced seasonal meal. They will learn how to cook with the seasonal ingredients following their own recipes and using a wide range of preparation and cooking techniques. Finally,	Children will design products with the user in mind thinking about aesthetics and functionality. Annotated designs will be used to communicate ideas as well as step by step plans. Children will learn how to make a paper template and how to sew a running stitch, backstitch, whip stitch and blanket stitch. Finally, when they have made their felt phone case, children will learn how to write a detailed evaluation.

	components and by selecting tools and equipment to measure and cut wood and card accurately.	children will evaluate their product against their design criteria.	
End Point	All children should be able to: <ul style="list-style-type: none"> • Generate, as a group, one viable idea after discussion with the teacher. • Cut materials accurately and safely by selecting appropriate tools. • Assemble a simple cam mechanism as part of the design. • Use tools with some accuracy and finish their automata animal in a design that they have prepared with some assistance. • Use design criteria to evaluate what they did well on their product. 	All children should be able to: <ul style="list-style-type: none"> • Understand what seasonality means. • Name some foods which are grown, reared, caught and processed. • Design simple seasonal recipes. • Prepare a range of ingredients hygienically. • Prepare, assemble/cook ingredients. 	All children should be able to: <ul style="list-style-type: none"> • Develop their own design criteria. • Use backstitch. • Create simple patterns.

Appendix:

National Curriculum KS1

Design:

A	use their knowledge of existing products and their own experience to help generate their ideas
B	design products that have a purpose and are aimed at an intended user
C	explain how their products will look and work through talking and simple annotated drawings
D	design models using simple computing software
E	plan and test ideas using templates and mock-ups
F	understand and follow simple design criteria
G	work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment

Make:

A	with support, follow a simple plan or recipe
B	begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives and juicers
C	select from a range of materials, textiles and components according to their characteristics
D	learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures
E	use a range of materials and components, including textiles and food ingredients
F	with help, measure and mark out
G	cut, shape and score materials with some accuracy
H	assemble, join and combine materials, components or ingredients
I	demonstrate how to cut, shape and join fabric to make a simple product
J	manipulate fabrics in simple ways to create the desired effect
K	use a basic running stitch
L	cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups
M	begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations

Evaluate:

A	explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations
B	explain positive and things to improve for existing products
C	explore what materials products are made from
D	talk about their design ideas and what they're making
E	as they work, start to identify strengths and possible changes they might make to refine their existing design
F	evaluate their products and ideas against their simple design criteria
G	start to understand that the iterative process sometimes involves repeating different stages of the process

Technical Knowledge:

A	build simple structures, exploring how they can be made stronger, stiffer and more stable
B	talk about and start to understand the simple working characteristics of materials and components
C	explore and create products using mechanisms, such as levers, sliders and wheels

Cooking and Nutrition:

A	explain where in the world different foods originate from
B	understand that all food comes from plants or animals
C	understand that food has to be farmed, grown elsewhere (eg. home) or caught
D	name and sort foods into the five groups in the Eatwell Guide
E	understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why
F	use what they know about the Eatwell Guide to design and prepare dishes

National Curriculum LKS2

Design:

A	Identify the design features of their products that will appeal to intended customers
B	use their knowledge of a broad range of existing products to help generate their ideas
C	design innovative and appealing products that have a clear purpose and are aimed at a specific user
D	explain how particular parts of their products work
E	use annotated sketches and cross-sectional drawings to develop and communicate their ideas
F	when designing, explore different initial ideas before coming up with a final design
G	when planning, start to explain their choice of materials and components including function and aesthetics;
H	test ideas out through using prototypes
I	use computer-aided design to develop and communicate their ideas
J	develop and follow simple design criteria
K	work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment.

Make:

Plan	
A	with growing confidence, carefully select from a range of tools and equipment, explaining their choices
B	select from a range of materials and components according to their functional properties and aesthetic qualities
C	place the main stages of making in a systematic order
Practical skills and techniques	
D	learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures
E	use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components
F	with growing independence, measure and mark out to the nearest cm and millimetre
G	cut, shape and score materials with some degree of accuracy
H	assemble, join and combine material and components with some degree of accuracy
I	demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product
J	join textiles with an appropriate sewing technique
K	begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.

Evaluate:

A	explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose
B	Explore what materials/ingredients products are made from and suggest reasons for this
C	consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product
D	evaluate their product against their original design criteria
E	evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.

Technical Knowledge:

A	understand that materials have both functional properties and aesthetic qualities
B	apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
C	understand and demonstrate how mechanical and electrical systems have an input and output process
D	Make and represent simple electrical circuits, such as a series and parallel, and components to create functional products
E	Explain how mechanical systems such as levers and linkages create movement
F	Use mechanical systems in their products

Cooking and Nutrition:

A	start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world
B	understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically
C	with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven
D	use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking
E	explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes
F	understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body
G	prepare ingredients using appropriate cooking utensils
H	measure and weigh ingredients to the nearest gram and millilitre
I	start to independently follow a recipe
J	start to understand seasonality

National Curriculum UKS2

Design:

A	use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market
B	use their knowledge of a broad range of existing products to help generate their ideas
C	Design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user
D	explain how particular parts of their products work
E	use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas
F	generate a range of design ideas and clearly communicate final designs
G	consider the availability and costings of resources when planning out designs
H	work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment

Make:

Planning	
A	independently plan by suggesting what to do next
B	with growing confidence, select from a wide range of tools and equipment, explaining their choices
C	select from a range of materials and components according to their functional properties and aesthetic qualities
D	create step-by-step plans as a guide to making
Practical skills and techniques	
E	learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures
F	independently take exact measurements and mark out, to within 1 millimetre
G	use a full range of materials and components, including construction materials and kits, textiles, and mechanical components
H	cut a range of materials with precision and accuracy
I	shape and score materials with precision and accuracy
J	assemble, join and combine materials and components with accuracy
K	demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product
L	join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch
M	refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape

Evaluate:

A	complete detailed competitor analysis of other products on the market
B	critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make
C	evaluate their ideas and products against the original design criteria, making changes as needed

Technical Knowledge:

A	apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
B	understand and demonstrate that mechanical and electrical systems have an input, process and output
C	explain how mechanical systems, such as cams, create movement and use mechanical systems in their products
D	apply their understanding of computing to program, monitor and control a product

Cooking and Nutrition:

A	know, explain and give examples of food that is grown (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world
B	understand about seasonality, how this may affect the food availability and plan recipes according to seasonality
C	understand that food is processed into ingredients that can be eaten or used in cooking
D	demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source
E	demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling
F	explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes
G	adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma
H	alter methods, cooking times and/or temperatures
I	measure accurately and calculate ratios of ingredients to scale up or down from a recipe;
J	independently follow a recipe