Princess May Primary School

DT Curriculum Knowledge and Skills Progression Map 2026–27

A Spiral Curriculum

Our DT scheme has been designed as a spiral curriculum with the following key principles in mind:

✓ **Cyclical:** Pupils return to the same skills again and again during their time in primary school.
✓ **Increasing depth:** Each time a skill is revisited it is covered with greater complexity
✓ **Prior knowledge:** Upon returning to a skill, prior knowledge is utilised so pupils can build upon previous foundations, rather than starting again.

Our curriculum intent

At Princess May, we aim for all our pupils to develop our school values of respect, empathy and determination. A high quality DT curriculum enables children to develop these values alongside gaining skills and knowledge in this subject area. Our scheme of work aims to inspire pupils to become curious, creative and innovative thinkers with a broad understanding of how products are designed and made, in other words, to think like designers and engineers. The intention is for pupils to develop the confidence to identify problems, generate ideas, plan and create products and evaluate their outcomes. The scheme aims to raise pupils' awareness of how design and technology shape the way they live, work and interact with the world. It encourages pupils to become resourceful, enterprising individuals who have the skills to contribute to and improve the world around them.

Holistic and sequenced teaching of Design and Technology skills

Sequential lessons
Lessons offer clear skills progression with units divided into four core areas:

- Structures
- Cooking and nutrition
- Mechanisms
- Textiles

A broad and balanced DT curriculum

- Covers all National curriculum aims in each unit.

A variety of outcomes for units
Each unit enables children to build skills and techniques towards exciting outcomes, while offering opportunities for teachers to develop the learning for the needs and of their children and their specific curriculum.

Application of skills and knowledge
Children practising techniques learned and developing and evaluating their ideas towards an outcome.

EYFS Framework

Expressive Arts and Design

ELG: Creating with materials
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.

Physical Development

ELG: Fine Motor Skills
Use a range of small tools.

National Curriculum Programme of Study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. At Princess May, the National Curriculum underpins our curriculum.

Sequence of Learning Overview

By the end of each key stage, children are expected to:

EYFS Art End Points:

Personal, Social and Emotional Development

ELG: Fine Motor Skills

- Use a range of small tools, including scissors.

Expressive Arts and Design

ELG: Creating with Materials

- Safely use and explore a variety of materials, tools and technique
- Explore, use and refine a variety of artistic effects to express their ideas and feelings
- Return to and build on their previous learning, refining ideas and developing their ability to represent them
- Create collaboratively, sharing ideas, resources and skills

Design, make, evaluate, technical knowledge

KS1 DT End Points (NC):

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
- 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 and ingredients, according to their characteristics

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria
- 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

KS2 DT Curriculum End Points (NC):

- Use research and develop design 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 their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- 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
- Investigate and analyse a range of existing products
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Understand how key events and individuals in design and technology have helped shape the world
- 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 their products.

Cooking and nutrition

KS1 DT End Points (NC):

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

KS2 DT Curriculum End Points (NC):

- 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.

Progression of skills

Mechanisms

	Design	Make	Evaluate	Technical Knowledge
Year 1 ***Matching sliders***	Thinking about what others might want from a design. Considering who they are designing for, by identifying the user. Stating what they intend to make and why, by identifying the purpose. Talking about ideas with purpose and the user in mind. Talking about existing products when generating ideas. Creating mock-ups to communicate designs.	Planning more than one step ahead. Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Requesting equipment appropriate to the purpose (e.g. scissors for cutting, glue for joining). Explaining in simple terms why certain tools must be handled carefully. Following and recalling simple safety instructions. Beginning to use objects with a fixed width or length to create even spacing of markings or cuts (e.g. a lolly stick). Refining their grip to cut competently and confidently. Cutting straight lines and evenly spaced lines. Beginning to cut large shapes and thicker materials like card. Puncturing holes. Applying masking tape to fix something in place or join the edges. Using tools, like scissors, to create shapes. Beginning to cut large shapes and thicker materials like card.	Discussing existing products, saying what they like about them. Discussing how their products could be improved based on personal preferences. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work.	Many things that move have parts inside to help them work. Mechanisms usually limit unwanted movement. A slider mechanism moves an object in a straight line (e.g. left/right, up/down). Sliding mechanisms are designed to keep movement in one direction (e.g. using guides/rails, etc.).
Year 2 ***Fairground wheel***	Conducting simple surveys or discussions to gather opinions on what others need or like in a design. Using a simple design brief that outlines the intended use, target user, and key features of the product, to create simple design criteria. Creating ideas with design criteria in mind. Referring to specific parts of existing products when generating ideas. Using labels to explain parts of a design, label materials etc, including using ICT. Integrating moving parts when creating mock-ups.	Choosing materials, ingredients or components from a wider range of materials, ingredients or components. Explaining their choices based on the properties of materials and components. Following and recalling simple safety instructions. Using templates and known shapes to create and adapt forms for a purpose. Applying consistent brush/pen/pencil strokes to create balance in their finishing.	Discussing a range of existing products and saying what they like and dislike about them. Evaluating their ideas and creations against simple design criteria. Suggesting improvements to their peers' designs and products.	To know that many moving objects contain internal parts to help them function. To know that mechanisms usually limit unwanted movement. To know that an axle allows the wheel to turn without falling off.
Year 4 ***Mechanical cars***	Taking part in structured idea generation sessions. Developing drawing and sketching skills with a focus on clarity and simplicity. Beginning to recognise the benefit of a range of diagram types or prototypes to communicate ideas. (e.g. sketches, cross-sectional diagrams, thumbnail sketches and exploded diagrams). Creating prototypes using materials with similar properties to their final design. Creating simple design criteria that outline basic	Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style. Use growing knowledge of different drawing materials, combining media for effect. Demonstrate greater control over drawing tools to show awareness of proportion and perspective, continuing to develop use of tone and more intricate	Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future iterations. Investigating and analysing a range of existing products by looking at their functionality and appeal. Analysing why specific products, designers	To know a mechanical system can allow us to move something more easily. To know mechanical systems have more than one mechanism that moves to make them work. To know mechanical systems are often hidden in products to make them look more appealing.

	functionality and appeal to individual users or target audiences. Developing designs by adding details and justifications about materials, tools and methods.	mark making.	or inventors are successful. Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. Evaluating how effective their chosen materials and tools were in fulfilling the design brief.	
Year 5 ***Gears and pulleys***	Noticing wider-reaching problems or needs in the community. Identifying a wide range of needs and potential barriers through market research. Writing more complex problem statements that consider multiple factors and constraints. Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design. Using a series of prototypes to refine and improve their designs.	Consistently apply safety instructions. Select appropriate scissors to handle delicate cutting tasks and challenging materials. Cutting patterns and drawings accurately. In supervised groups, using hot glue guns safely. Recognising that hot glue is useful for joining materials that need a strong bond that sets quickly. Choosing PVA glue over hot glue for its safety when joining materials in less intensive projects.	Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Considering alternative materials, tools or techniques that could enhance the product. Providing feedback that is helpful, specific, and encouraging. Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they had.	To know: Mechanical systems that use gears in everyday objects (e.g. bicycle, clock, etc.). Gears and pulleys allow us to transfer movement and force from one part of a mechanical system to another. Gears allow us to increase the output of a mechanism. Annotations are detailed labels and comments on diagrams. Risks are things that might happen. Hot glue creates a strong bond quickly. It is often better to choose safer equipment.
Year 6 ***Automata toys***	Noticing wider-reaching problems or needs in the community. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design.	Producing lists of equipment, materials and tools that they need for a task. Selecting materials, components or ingredients based on research or user needs. Explaining their choices, referring to their research. Considering which equipment will work well together. Choosing from the known range of equipment available to them with little guidance. Assessing risks associated with different tools and equipment. Understanding and explaining the importance of each safety rule. Consistently apply safety instructions. Using appropriate cutting tools and techniques to achieve accurate and aesthetic cuts. Selecting and applying joining methods to create strong, durable and well-finished products.	Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Providing feedback that is helpful, specific and encouraging. Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they had.	Naming which mechanisms work together to make a mechanical system. Recognising that there are different directions of movement. Recognising that mechanisms can change one type of movement to another. Using cams to change motion as desired.

Progression of skills

Structures

	Design	Make	Evaluate	Technical Knowledge

Reception ***Junk Modelling***	Making verbal plans and material choices. Describing their junk model, and how they intend to put it together	Improving fine motor/scissor skills with a variety of materials. Joining materials in a variety of ways (temporary and permanent). Joining different materials together..	Giving a verbal evaluation of their own and others' junk models with adult support. Checking to see if their model matches their plan. Considering what they would do differently if they were to do it again. Describing their favourite and least favourite part of their model.	To know there are a range to different materials that can be used to make a model and that they are all slightly different.
Reception ***Boats***	Designing a junk model boat Using knowledge from exploration to inform design. Making predictions about, and evaluating different materials to see if they are waterproof. Making predictions about, and evaluating existing boats to see which floats best. Investigating how the shapes and structure of a boat affect the way it moves.	Making a boat that floats and is waterproof, considering material choices.	Testing their design and reflecting on what could have been done differently.	To know that 'waterproof' materials are those which do not absorb water. To know that some objects float and others sink. To know the different parts of a boat.
Year 1 ***Stable structures***	Thinking about what others might want from a design. Beginning to recognise how products and designs in the world around us solve certain needs. Considering who they are designing for – identifying the user. Stating what they intend to make and why – identifying the purpose. Talking about ideas, with purpose and user in mind. Talking about existing products when generating ideas. Using basic drawing skills to communicate ideas.	Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Requesting equipment appropriate to the purpose (e.g. scissors for cutting, glue for joining, etc.). Beginning to use objects with a fixed width or length to create even spacing of markings or cuts (e.g. a lolly stick). Refining their grip to cut competently and confidently. Cutting straight and evenly spaced lines. Beginning to cut large shapes and thicker materials like card.	Discussing existing products, saying what they like about them. Comparing two products and discussing which is better for a specific purpose. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work.	Recognising that different structures are used for different purposes. Exploring the features of structures. Describing structures as buildings or freestanding structures. Making stable structures from card. Creating supporting structures to aid stability. Using stable objects like cylinders to create structures.
Year 2 ***Baby Bear's chair***	Using a simple design brief that outlines the intended use, target user and key features of the product to create simple design criteria. Creating ideas with design criteria in mind. Referring to specific parts of existing products when generating ideas.	Choosing materials, ingredients or components from a wider range of materials, ingredients or components. Explaining their choices based on the properties of materials and components. Looking for ways to make cutting easier, for example, turning the material they are cutting, not fully closing the scissors, etc. Choosing known geometric shapes when making. Beginning to shape objects to improve how they work.	Discussing a range of existing products and saying what they like and dislike about them. Comparing a range of products and explaining why some better meet different design criteria than others. Evaluating their ideas and creations against simple design criteria.	Recognising that different structures are used for different purposes. Exploring the features of structures. Making stable structures from card. Creating supporting structures to aid stability. Using stable objects like cylinders to create structures. Building a strong and stiff structure by folding paper. Folding to strengthen or stiffen. Comparing the stability of different shapes. Identifying the weakest part of a structure.
Year 3 ***Product packaging***	Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Beginning to use 2D CAD software to communicate their ideas. (sketchpad)	Creating accurate shapes from templates. Choosing shapes to suit the function of a product. Cutting out more complex shapes accurately.	Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future iterations. Investigating and analysing a range of existing products by looking at their functionality and appeal.	Beginning to understand how different structures are built. Strengthening structures by ribbing.

Year 4 ***Helmets***	Noticing simple problems or needs in their everyday life. Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Taking part in structured idea-generation sessions. Coming up with more ideas and considering the feasibility of their ideas in the classroom. Beginning to use 2D CAD software to communicate their ideas. Developing drawing and sketching skills with a focus on clarity and simplicity. Developing designs by adding detail and justifications about materials, tools, methods. Beginning to recognise the benefit of a range of diagram types or prototypes to communicate ideas. (eg. sketches, cross-sectional diagram, thumbnail sketches and exploded diagrams) Creating prototypes using materials with similar properties to their final design.	Selecting materials, components or ingredients from a wider choice but within a limited design space (e.g. seasonal ingredients from May and June in the UK). Selecting materials, components or ingredients based on their form as well as their functional properties. Explaining their choices with regard to function and form. Suggesting simple safety rules based on their understanding of tool dangers. Participating in discussions about classroom safety procedures. Following detailed safety instructions. Using a ruler as a measuring tool with increasing accuracy. Cutting out more complex shapes accurately. Handle different sizes and types of scissors with confidence. Creating accurate shapes from templates. Choosing shapes to suit the function of a product. Painting or colouring precisely to improve the finish. Making facades from a range of materials. Creating different textural effects with a variety of materials..	Investigating and analysing a range of existing products by looking at their functionality and appeal. Analysing why specific products, designers or inventors are successful. Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. Evaluating how effective their chosen materials and tools were in fulfilling the design brief. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future iterations.	Beginning to understand how different structures are built. To stiffen structures by layering. To strengthen structures by layering materials (lamination). To strengthen structures by ribbing.
Year 6 ***Playground pioneers***	Identifying more complex problem statements that consider multiple factors and constraints with guidance. Developing more independence in generating ideas. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. Using 3D CAD software to communicate their ideas. Using a series of prototypes to refine and improve their designs.	Producing lists of equipment, materials and tools that they need for a task. Selecting materials, components or ingredients based on research or user needs. Assessing risks associated with different tools and equipment. Understanding and explaining the importance of each safety rule. Consistently apply safety instructions. Using a ruler to accurately measure and draw lines and marks. In small groups, cutting harder wood with a saw. Cutting in a back-and-forth sawing motion where appropriate. Balancing aesthetics and functionality when creating parts of a design. Considering when best to apply finishing effects.	Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Considering alternative materials, tools or techniques that could enhance the product.	Understanding how to reinforce structures to make them more stable. Using triangulation to strengthen or stabilise a structure.

Progression of skills

Textiles

	Design	Make	Evaluate	Technical Knowledge
Year 1 ***Simple stitches***	Stating what they intend to make and why – identifying the purpose. Talking about ideas, with purpose and user in mind. Using basic drawing skills to communicate ideas.	Choosing between a small number of materials, ingredients or components. Explaining their choices based on personal experiences. Explaining in simple terms why certain tools must be	Discussing existing products, saying what they like about them. Comparing two products and discussing which is better for a specific purpose. Saying what they like about their peers'	Discussing fabric properties. Threading large needles. Rehearsing sewing techniques with large needles and thick thread, like wool.

		handled carefully. Following and recalling simple safety instructions. Using a straightedge to draw a straight line. Beginning to use objects with a fixed width or length to create even spacing of markings or cuts. (e.g. a lolly stick). Using a large plastic needle and large-weave embroidery fabric to begin to create a running stitch. Applying masking tape to fix something in place or join to edges. Adding texture to create visual interest.	designs and products. Accepting feedback and understanding it is meant to improve their work.	Sewing a running stitch in large-weave embroidery fabric or hessian. Creating patterns and following them with stitching. Spacing stitches evenly.
Year 3 ***Egyptian collars***	Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Developing drawing and sketching skills with a focus on clarity and simplicity. Developing designs by adding detail and justifications about materials, tools, methods.	Selecting materials, components or ingredients from a wider choice but within a limited design space (e.g. seasonal ingredients from May and June in the UK). Selecting materials, components or ingredients based on their form as well as their functional properties. Selecting equipment required for a series of tasks based on the plan. Explain why each piece is suitable for each stage. Cutting more complex shapes and a wider range of materials and foods accurately and safely (e.g. using a bridge or claw hold when chopping foods). Joining materials securely by selecting and applying appropriate joining methods for the material and purpose. Creating and refining accurate 2D and 3D shapes to suit the function of a product. Applying precise and varied finishing techniques to enhance appearance and surface quality.	Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future iterations.	Threading needles with greater independence. Sewing with smaller needles to create smaller stitches. Selecting similar or different colour thread to hide or show the stitch. Creating a template. Sewing cross stitch to decorate or join fabric. Decorating fabric using appliqué. Sewing using a running stitch.
Year 5 ***Stuffed toys***	Developing more independence in generating ideas. Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design.	Choosing from the known range of equipment available to them with little guidance. Measuring and marking to a greater degree of accuracy to support more complex designs and components. Using appropriate cutting tools and techniques to achieve accurate and aesthetic cuts. Selecting and applying joining methods to create strong, durable and well-finished products. Shaping and refining materials and components to balance aesthetics and functionality. Selecting and applying finishes to enhance appearance and protect the product.	Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects.	Threading needles independently. Beginning to follow simple patterns or templates that require accurate cutting or measuring. Sewing a blanket stitch to join fabric. Sewing using a blanket stitch with even a regular spaces between the stitches. Using pins effectively to secure a template to fabric without creases or bulges. Tying strong knots.

Progression of skills

Cooking and nutrition

	Design	Make	Evaluate	Technical Knowledge

Reception ***Soup***	To explore fruits and vegetables and the differences between them. To use adjectives to describe how fruits and vegetables look, feel, smell and taste.	Learning how to use a knife safely, using a range of tools to cut and prepare. To observe and help (where appropriate) with the use of tools to prepare ingredients.	To describe the finished product and evaluate the process.	Using a range of small tools safely.
Year 2 ***Balanced diet***	Using a simple design brief that outlines the intended use, target user and key features of the product, to create simple design criteria. Creating ideas with design criteria in mind. Referring to specific parts of existing products when generating ideas.	Planning more than one step ahead. Choosing materials, ingredients or components from a wider range of materials, ingredients or components. Explaining their choices based on the properties of materials and components. Selecting from a wider range of equipment some of which are used for the same purpose (e.g. joining by sewing instead of glue). Explaining in simple terms why certain tools must be handled carefully. Following and recalling simple safety instructions. Cutting a range of materials with improving control by adjusting grip and positioning the material carefully.	Discussing a range of existing products and saying what they like and dislike about them. Comparing a range of products and explaining why some better meet different design criteria than others. Evaluating their ideas and creations against simple design criteria. Discussing whether they were able to use the tools and techniques effectively. Suggesting improvements to their peers' designs and products.	Selecting foods to create a balanced recipe. Selecting foods based on their food group. Describing appearance, smell and taste. Chopping foods safely to make a wrap. Grating foods. Snipping smaller foods instead of cutting.
Year 3 ***Eating seasonally***	Noticing simple problems or needs in their everyday life. Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Taking part in structured idea-generation sessions. Coming up with more ideas and considering the feasibility of their ideas in the classroom. Developing designs by adding detail and justifications about materials, tools, methods. Creating prototypes using materials with similar properties to their final design.	Ordering the main stages of making into a plan. Selecting materials, components or ingredients from a wider choice but within a limited design space (e.g. seasonal ingredients from May and June in the UK). Selecting materials, components or ingredients based on their form as well as their functional properties. Explaining their choices with regard to function and form. Suggesting simple safety rules based on their understanding of tool dangers. Participating in discussions about classroom safety procedures. Following detailed safety instructions. Cutting more complex shapes and a wider range of materials and foods accurately and safely (e.g. using a bridge or claw hold when chopping foods).	Investigating and analysing a range of existing products by looking at their functionality and appeal. Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. Evaluating how effective their chosen materials and tools were in fulfilling the design brief. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future iterations.	Identifying foods with different nutritional properties. Recognising the seasonality of foods. Understanding that many foods are imported from other countries. Following the instructions within a recipe. Tasting seasonal ingredients. Selecting seasonal ingredients. Peeling ingredients safely. Cutting safely with a vegetable knife.
Year 4 ***Adapting a recipe***	Noticing simple problems or needs in their everyday life. Using empathy and conducting simple surveys to recognise the needs of others. Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. Taking part in structured idea-generation sessions. Coming up with more ideas and considering the feasibility of their ideas in the classroom. Developing designs by adding detail and justifications about materials, tools, methods.	Ordering the main stages of making into a plan. Selecting materials, components or ingredients from a wider choice but within a limited design space (e.g. seasonal ingredients from May and June in the UK). Selecting materials, components or ingredients based on their form as well as their functional properties. Explaining their choices with regard to function and form. Selecting equipment required for a series of tasks based on the plan. Explain why each piece is suitable for each stage. Suggesting simple safety rules based on their understanding of tool dangers. Participating in discussions about classroom safety procedures. Following detailed safety instructions. Choosing shapes to suit the function of a product.	Investigating and analysing a range of existing products by looking at their functionality and appeal. Analysing why specific products, designers or inventors are successful. Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. Evaluating how effective their chosen materials and tools were in fulfilling the design brief. Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. Reflecting on feedback to decide if and how it could be used to improve future	Following the instructions within a recipe. Following a baking recipe, including the preparation of ingredients. Cooking safely, following basic hygiene rules.

			iterations.	
Year 5 ***Developing a recipe***	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome. Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.	Producing lists of equipment, materials and tools that they need for a task. Creating a step-by-step plan for making. Selecting materials, components or ingredients based on research or user needs. Explaining their choices, referring to their research. Understanding and explaining the importance of each safety rule. Consistently apply safety instructions. Using appropriate cutting tools and techniques to achieve accurate and aesthetic cuts. Shaping and refining materials and components to balance aesthetics and functionality. Selecting and applying finishes to enhance appearance and protect the product.	Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Evaluating the work of a range of designers to help inform their designs. Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. Considering alternative materials, tools or techniques that could enhance the product. Providing feedback that is helpful, specific, and encouraging.	Understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. Recognising that meat is farmed and reared. Adapting a traditional recipe. Cutting and preparing vegetables safely. Using equipment safely, including knives, hot pans and hobs. Following a step by step method carefully to make a recipe. Knowing how to avoid cross-contamination.
Year 6 ***Come Dine With Me***	Noticing wider-reaching problems or needs in the community. Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. Developing more independence in generating ideas. Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality.	Producing lists of equipment, materials and tools that they need for a task. Creating a step-by-step plan for making. Selecting materials, components or ingredients based on research or user needs. Considering which equipment will work well together. Choosing from the known range of equipment available to them with little guidance. Assessing risks associated with different tools and equipment. Understanding and explaining the importance of each safety rule. Consistently apply safety instructions. Using appropriate cutting tools and techniques to achieve accurate and aesthetic cuts. Selecting and applying finishes to enhance appearance and protect the product.	Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. Evaluating the work of a range of designers to help inform their designs. Considering alternative materials, tools or techniques that could enhance the product. Providing feedback that is helpful, specific, and encouraging. Incorporating feedback from peers or users improve their product further, explaining the changes they made and the impact they had.	Recognising that meat is farmed and reared. Cutting and preparing vegetables safely. Using equipment safely, including knives, hot pans and hobs. Following a step by step method carefully to make a recipe. Identifying the flavours of different foods. Pairing foods based on their flavours.