WESTON C OF E PRIMARY SCHOOL LONG TERM PLAN

DESIGN and TECHNOLOGY CURRICULUM OVERVIEW 2025-2026 Cycle B

Year 1/2	AUTUMN	SPRING A	SPRING B	SUMMER
DT Strand	**Cooking and Nutrition**	**Cooking and Nutrition**	**Textiles** **Sew**	**Mechanisms/Mechanical Systems** **Build**
Teaching Unit	**Pizza**	**Gingerbread**	**Pencil Cases**	**Moving Pictures**
Disciplinary Knowledge (concepts)	Processed v home-made food Preserving food Savoury Cooking from different cultures—Naples, Italy History of food Cost of food	Spices Spicy/sweet History of food Food transport and cost of ingredients Decoration Cooked v raw Baking	Process of design Features of a pencil case—how they work, size, materials, fastenings, shape, joining, decoration Using suitable materials Properties of different materials Making products with fabric Join fabric together—sewing and gluing Creating stiches with a needle and thread	Process of design Mechanical systems: levers and sliders Wheels and axles in everyday examples Structures and materials to make levers and sliders in moving pictures strong, stiff and stable.
Disciplinary Knowledge (skills)	Following a simple recipe Measuring in spoonfuls Mixing/making a dough/ kneading Rolling and shaping Spreading Cutting/Slicing Tearing Presentation Baking	Following a simple recipe Measuring using spoons Chopping Mixing Rubbing fat into flour Cracking an egg Making a dough, rolling, cutting Baking, Cooling Decorating	**Research and Investigate:** Existing products **Design**: Understand criteria (user, purpose, function, appeal), generate/develop ideas, talking, drawing, labelling **Make:** Select tools/materials, using paper templates/patterns, drawing/cutting shapes, threading a needle, tying a knot, running stitch, gluing on decoration **Use and Evaluate**: Photograph pencil cases, written evaluation against criteria	**Research and Investigate**: levers and sliders; examples of what products which used these: see saw, scissors, hammer, wheelbarrow, shaduf; research examples of moving pictures **Design:** Understand criteria (user, purpose, function, appeal); generate/innovate/ develop ideas; talking; drawing; labelling; creating a mock up. **Make:** Select tools/materials for making a moving picture with levers and sliders; cutting; different ways of joining decorating; finishing **Use and Evaluate:** Photograph pictures; evaluation against criteria and existing products

Vocabulary	Home-Made Processed Savoury Dough Knead Passata Recipe Slice Chopping Board	Spice Ginger Sweet Transport Dough Cook Bake Raw Recipe Design Materials Suitable Properties Sew Fastening Fabric Needle Thread Stitch Running Stitch	Mechanism Lever Pivot Or Fulcrum Bar Force/Effort Load Shaduf Slider Slot Bridge Motion Linear Motion Oscillating Motion	Home-Made Processed Savoury Dough Knead Passata Recipe Slice Chopping Board
Why this? Why now?	In this unit of work children make pizzas. The first session introduces the idea that pizza can be home-made. Pizza originated in Naples in Southern Italy where it was street food eaten by the poor. The Margherita pizza is named after an Italian queen who was tired of eating rich food and wanted something plain to eat. The recipe in session 2 introduces the children to the skill of kneading dough and cutting and slicing vegetables with a knife. Cutting and slicing is rehearsed in session 1 before the children start following the recipe in session 2. This builds on the cooking knowledge gained in year 1.	This unit builds on Autumn A and consolidates the knowledge learned.	This unit introduces the children to the product they will design and create: a pencil case. They start by investigating examples of pencil cases, and in doing so undertake the first stage of the design process: researching and investigating the product they will produce. In order to do this they revise what they learnt about the properties of different materials in year 1 science, Summer B in the unit on Materials & Magnets. They then learn that fabric can be used to make objects like clothes and pencil cases which can be joined together by sewing. They conclude the lesson by practising running stitch which they will use to make their pencil cases.	This unit introduces the children to the product they will design and create: a moving picture using levers and sliders. They to start learn how a lever and a slider works, what function they perform (looking at everyday examples) and the different component parts within the mechanisms. Exploration of the shaduf, used for irrigation throughout history, allows the children to make connections with what they have learnt in science in Spring B about what plants need to grow. They go on to investigate examples of levers and sliders made from card to create moving pictures. In doing so they are undertaking the first stage of the design process: researching and investigating the product they will produce.
Key End Points	As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to	When designing and making, pupils should be taught to: **Design**—Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing and templates. **Make**—select from and use a range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select		**Design**—Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate

	one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. In Key Stage 1 pupils should be taught to: • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from.	from and use a wide range of materials and components, including textiles, according to their characteristics. **Evaluate**– explore and evaluate a range of existing products, evaluate their ideas and products against design criteria.	their ideas through talking, drawing and mock ups. **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, according to their characteristics. **Evaluate**– explore and evaluate a range of existing products, evaluate their 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 levers and sliders) in their products

Year 3/4	**AUTUMN**	**SPRING**	**SUMMER A**	**SUMMER B**
DT Strand	**Sew**	**Build**	**Cooking and Nutrition**	**Cooking and Nutrition**
Unit	**Cushions**	**Moving Miniature Playgrounds**	**Ratatouille and Couscous**	**Apple Crumble**
Disciplinary Knowledge (Concepts)	Process of design Making products with fabric Types of fabric - natural/synthetic Properties of fabric—thickness, softness, stretchiness Features of a cushion size, materials, shape, joining, decoration Decoration—appliqué	Process of design Mechanical systems: gears, teeth, interlock, motion transfer, drive gear, driven gear, gearing up, gearing down Gears: user and purpose in everyday examples Structures and materials to make a product with gears — 3d shapes, strong, stiff and stable. Electrical systems: circuits, batteries, bulbs and buzzers	Sweet/Savoury Ratatouille—food from France Couscous—food from North Africa Vegetables as part of a healthy diet The different parts of a plant which we eat	Sweet/Savoury British cooking Different varieties of apples, seasonality Apples as part of a healthy diet Environment, sustainability, affordability
Disciplinary Knowledge (Skills)	**Research and Investigate:** Appliqué, cushions, running	**Research and Investigate:** Gears; examples of products which used these: tin openers, bicycles; how gears	Following a recipe Weighing using scales	Following a recipe weighing using scales Peeling, coring, chopping

	stitch, backstitch, overcast stitch (whipstitch) **Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings **Make:** Select tools/materials, making paper templates/ patterns, drawing/cutting shapes, pinning, threading a needle, tying a knot, running stitch, backstitch, overcast stitch (whipstitch), appliqué, stuffing **Use and Evaluate:** Photograph, written evaluation, peer evaluation—against criteria	on a bicycle work; history of gears, ancient Greek Antikythera mechanism (used to predict astronomical positions) **Design:** Devising criteria (user, purpose, function, appeal); generate/innovate/develop ideas; create annotated drawings and exploded diagrams. **Make**: Select tools/materials for making a moving toy with gears and an electrical circuit, cutting, different ways of joining, decorating, finishing **Use and Evaluate**: Written evaluation against criteria and existing products	Using a knife—bridge and claw method Using a chopping board Chopping Peeling an onion Cooking vegetables Soaking	Using a knife—bridge method Using a chopping board Rubbing fat into flour Sprinkling Baking, cooling
Vocabulary	Accurate Applique Cross-stitch Cushion Decorate Detail Fabric Patch Running-stitch Seam Stencil Stuffing Target audience Target customer Template	Mechanism Component Part Gear Axle Drive Gear Circuit Battery Switch Wire Annotated Diagram Exploded Diagram Ratatouille Stew Couscous Chop	Accurate Applique Cross-stitch Cushion Decorate Detail Fabric Patch Running-stitch Seam Stencil Stuffing Target audience Target customer Template	Mechanism Component Part Gear Axle Drive Gear Circuit Battery Switch Wire Annotated Diagram Exploded Diagram
Why this? Why now?	Children will design and create a cushion decorated with appliqué. They start by investigating the properties of a cushion, how it is made, what it is for and in particular how it can be decorated with appliqué. By this process of investigation they are undertaking the first stage of the design process: researching and investigating the product they will produce. They go on to learn	This unit introduces the children to the product they will design and create: a miniature playground using gears and incorporating an electrical circuit. They start by investigating what gears are and how they work with reference to a tin opener. They finish by investigating the gearing system on a bicycle. By this process of investigation they are undertaking the first stage of the design process: researching and investigating a	In this unit of work children make ratatouille and couscous. The first session introduces the children to ratatouille as a French stew that uses lots of vegetables. The children go on to revise learning from science in year 2 and 4 about the nutritional value of vegetables and learn how vegetables come from different parts of a plant. The recipe in session 2 revises bridge and claw knife skills which children	In this unit of work children make an apple crumble. The first session concentrates on how apples can be used in cooking as well as eaten raw and the different varieties of apple that are produced at different times throughout the course of the year in Great Britain. The session also introduces how apples can be part of a healthy diet. The recipe in session 2 develops the children's skill of peeling and chopping which they

	about the history of appliqué which was used by the ancient Egyptians (recalling their prior learning from year 3 in history when they learn about Tutankhamun) before finally being introduced to the stitches they will use to make their own cushions. Children will design their own appliqué designs for their cushions. They start this by learning explicitly about the process of design, considering the properties of fabric and then developing their own design criteria, considering the user, purpose/function and aesthetic appeal of their product. They then practice the stitches (running stitch/backstitch and overcast stitch (or whipstitch)) that they will use to make their cushions before using these skills to create their cushion.	mechanism which will form part of the product they will produce. Children will design their miniature playground incorporating gears and an electrical circuit for a child in KS1. In doing so they explicitly learn about the process of design, developing their own design criteria, considering the user, purpose/function and aesthetic appeal of their product. Children have learnt about electrical circuits in science in year 2. Children then make their playground.	have previously used in years 2 and 3. These skills are rehearsed in session 1 before the children start following the recipe in session 2 and beyond.	were introduced to when making a pasta bake in year 3. These skills, as well as how to core an apple, are rehearsed in session 1 before the children start following the recipe in session 2 and beyond.
Key End Points	**Design**—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, pattern pieces **Make**—select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select from and use a wider range	**Design**—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, prototypes. **Make**—select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select from and use a wider range of materials and components, including construction materials, according to	As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils will: • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of dishes using a range of cooking techniques • know where and how a variety of ingredients are grown, reared, caught and processed	

	of materials and components, including textiles, according to their functional properties and aesthetic qualities. **Evaluate**- 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.	their functional properties and aesthetic qualities. **Evaluate**- 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. **Technical knowledge** - apply their understanding of how to strengthen, stiffen and reinforce more complex structures; understand and use mechanical systems in their products (for example, levers and linkages).	

Year 5/6	**AUTUMN**	**SPRING A**	**SPRING B**	**SUMMER**
DT Strand	**Mechanisms/Mechanical Systems**	**Cooking and Nutrition**	**Mechanisms/Mechanical Systems**	**Mechanisms/Mechanical Systems**
Unit	**Water Wall**	**Mezze**	**Electrical Toys – Link to Science Electrical Circuits**	**Water Wall**
Disciplinary Knowledge (Concepts)	Process of design Mechanisms: pulleys, Archimedes' screw Everyday examples and purpose of pulleys. Purpose of Archimedes' screw Structures and materials to make products with pulleys in everyday examples—3d shapes, strong, stiff and stable. Plastics pollution/recycling/reuse Use of electricity and connection to global warming Engineering systems to create environmentally friendly solutions—Nav Sawhney and the	Cooking from different cultures Sweet/Savoury Mezze—sharing food Balanced diet and different food groups Seasoning Herbs and spices	Process of design Electrical Toys: user and purpose in everyday examples. Electrical systems: circuits, batteries, bulbs, buzzers and motors. Structures and materials to make a product with an electrical circuit — strong, stiff and stable.	Process of design Mechanisms: pulleys, Archimedes' screw Everyday examples and purpose of pulleys. Purpose of Archimedes' screw Structures and materials to make products with pulleys in everyday examples—3d shapes, strong, stiff and stable. Plastics pollution/recycling/reuse Use of electricity and connection to global warming Engineering systems to create environmentally friendly solutions—Nav Sawhney and the Washing

	Washing Machine Project. Appropriate use of materials			Machine Project. Appropriate use of materials
Disciplinary Knowledge (Skills)	**Research and Investigate:** Investigate water wall and pulleys Design Devising criteria (user, purpose, function, appeal), generate/innovate/ develop ideas, create annotated drawings and prototypes **Make**: Select tools/materials for making a water wall for Reception with recycled objects, cutting, tying knots, sticking, making holes Use and **Evaluate**: Evaluation with user (Reception)—against criteria and existing products	Following a recipe Weighing ingredients using scales Using a knife—bridge and claw method Chopping Squeezing a lemon Grating Using a garlic press Seasoning Soaking Mixing Mashing Cracking an egg Cooking with meat	**Research and Investigate:** Examples of products which use electrical circuits. **Design:** Devising criteria (user, purpose, function, appeal); generate/innovate/develop ideas; create annotated drawings. **Make**: Select tools/materials for making a card with an electrical circuit, connecting components, cutting, different ways of joining, decorating, finishing Use and **Evaluate**: Written evaluation against criteria and existing products	**Research and Investigate:** Investigate water wall and pulleys Design Devising criteria (user, purpose, function, appeal), generate/innovate/ develop ideas, create annotated drawings and prototypes **Make**: Select tools/materials for making a water wall for Reception with recycled objects, cutting, tying knots, sticking, making holes Use and **Evaluate**: Evaluation with user (Reception)—against criteria and existing products
Vocabulary	Mechanism Component Archimedes' Screw Pulley Wheel Axle Load Effort Groove Prototype Mezze Savoury Recipe Tzatziki Baba Ghanoush Tabbouleh Kofta Seasoning	Electrical Circuit Component Parts Bulb, Battery, Switch Design Materials Stiff/Stable User Purpose/Function Aesthetic	Mechanism Component Archimedes' Screw Pulley Wheel Axle Load Effort Groove Prototype	Mezze Savoury Recipe Tzatziki Baba Ghanoush Tabbouleh Kofta Seasoning Electrical Circuit Component Parts Bulb, Battery, Switch Design Materials Stiff/Stable User Purpose/Function Aesthetic
Why this? Why now?	This unit introduces the children to the product they will design and create: a waterwall for children in Reception. They start by investigating existing water walls. By this process of investigation they are undertaking the first stage of the design process: researching and investigating the product they will produce. In order to understand how to make water go up hill, they learn about two	In this unit of work children cook various dishes which make up a mezze. A mezze is a selection of small savoury dishes cooked in countries such as Greece, Bulgaria, Turkey, Iran and Iraq which are shared. It is also known by the word meze, spelt with one z. The first session introduces the children to the mezze and how this is an example of a balanced meal. This builds on knowledge gained from	In this unit children will design a card incorporating an electrical circuit for a friend/member of their family. In doing so they explicitly learn about the process of design, developing their own design criteria, considering the user, purpose/function and aesthetic appeal of their product. The start of the lesson begins by revising what the children learnt about electrical circuits in the year 6 science unit on	This unit introduces the children to the product they will design and create: a waterwall for children in Reception. They start by investigating existing water walls. By this process of investigation they are undertaking the first stage of the design process: researching and investigating the product they will produce. In order to understand how to make water go up hill, they learn about two mechanisms that can achieve this—

	mechanisms that can achieve this—Archimedes' screw and the pulley. What the children learn about pulleys builds on their knowledge from their study of these whilst learning about forces in science (Year 5, Spring B). Also remind them that Archimedes, an scientist from Ancient Greece, is one of the people who appear in Raphael's 'School of Athens' studied in the art unit on the Renaissance in Year 6, Autumn A.	the science curriculum from year 4, Autumn A (The Human Body) where the children learn about the different types of food that we need to be healthy. In session 2 and 4 and children make four different mezze dishes and then taste and evaluate what they have made in session 5. The dishes made in the two making sessions can either be taken home or form part of a lunch which the children present to Governors.	electricity (Spring B). Before working with circuits pupils must be aware that electricity can be dangerous and can lead to electric shocks or even death. Safety rules must be agreed and adhered to at all times, in school and at home.	Archimedes' screw and the pulley. What the children learn about pulleys builds on their knowledge from their study of these whilst learning about forces in science (Year 5, Spring B). Also remind them that Archimedes, an scientist from Ancient Greece, is one of the people who appear in Raphael's 'School of Athens' studied in the art unit on the Renaissance in Year 6, Autumn A.
Key End Points	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school). When designing and making, pupils should be taught to: **Design**—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, prototypes. **Make**—select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select from and use a wider range of materials and components, including construction materials, according	As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. In Key Stage 2 pupils should be taught to: • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of dishes using a range of cooking techniques • know where and how a variety of ingredients are grown, reared, caught and processed	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts. When designing and making, pupils should be taught to: **Design**—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. **Make**—select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select from and use a wider range of materials and components, including construction materials, according to their	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school). When designing and making, pupils should be taught to: **Design**—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, prototypes. **Make**—select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing; select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities.

	to their functional properties and aesthetic qualities. **Evaluate-** 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. **Technical knowledge** - apply their understanding of how to strengthen, stiffen and reinforce more complex structures; understand and use mechanical systems in their products (for example, pulleys).		functional properties and aesthetic qualities. **Evaluate-** 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. **Technical knowledge** - apply their understanding of how to strengthen, stiffen and reinforce more complex structures; understand and use electrical systems in their products, for example, series circuits incorporating switches and bulbs.	**Evaluate-** 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. **Technical knowledge** - apply their understanding of how to strengthen, stiffen and reinforce more complex structures; understand and use mechanical systems in their products (for example, pulleys).