

Design and Technology

<p>Intent – what do we want to achieve?</p>	<p>We aim for Design & Technology to be an inspiring, challenging and practical subject. Using creativity and imagination, children design, make and evaluate products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. We want our children to learn how to take risks and become resourceful by drawing on their learning in maths, science, engineering, computing and art. We want our children to become designers of the future – chefs, architects and engineers.</p>
<p>Implementation – how will we achieve this?</p>	<p>Learning will begin in the EYFS, when children explore and use a variety of materials through a combination of child initiated and adult directed activities. They have opportunities to learn to use different media and materials to express their own ideas and begin to think about how and why things are made. Children make plans and construct with a purpose in mind using a variety of resources, using simple tools to develop skills safely. There are also plenty of opportunities to cook and prepare food using good health and hygiene routines. Children grow, harvest and cook their own salad and vegetables during the spring and summer months.</p> <p>In KS1:</p> <p>Design:</p> <ul style="list-style-type: none"> • Design should be rooted in real life, relevant contexts to give meaning to the learning. • Planned through appropriate formats: drawing, templates, talking and mock-ups. <p>Make:</p> <ul style="list-style-type: none"> • Children should be given a range of tools for their projects to choose from. • Children should use a wide range of materials and components; textiles, construction equipment and ingredients. <p>Evaluate:</p> <ul style="list-style-type: none"> • Evaluate existing products. • Evaluate their own products against design criteria. <p>In KS2</p> <p>Design:</p> <ul style="list-style-type: none"> • Rooted in real life, relevant contexts to give meaning to the learning. • Researched designs based on functional, appealing products with purpose.

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	<ul style="list-style-type: none"> Planned by appropriate methods; annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer aided design. <p>Make:</p> <ul style="list-style-type: none"> Children can select from a wider range of tools than KS1. Children should use from and select a wider range of materials and components; textiles, construction equipment and ingredients. <p>Evaluate:</p> <ul style="list-style-type: none"> Evaluations should be in comparison to existing products. Children should evaluate against a design criteria. Children should understand how key events and individuals have helped shape design and technology globally – products are in context. <p>Our onsite Forest School will link to developing design and technology skills, as children learn how to use a range of tools safely and effectively.</p>				
<p>Impact – what will be the impact on learning?</p>	<p>Children have a clear understanding of the design process and a good grasp of how to evaluate, develop and improve ideas. Children are inspired to take risks in a safe environment. Outcomes can be evidenced in STEM books, showing how children have generated their ideas before evaluation has taken place. Work is displayed around the school and there is also photographic evidence. In addition, the Forest School leaders document evidence and assess children’s outcomes. Children’s work is assessed against the learning objectives and success criteria for each lesson. Children are encouraged to self and peer assess and teachers use feedback constructively. Teachers are actively encouraged to seek CPD opportunities to improve their practice. Design Technology is monitored by the Federation subject lead.</p>				
EYFS					
<p>EYFS framework - intent</p>	<p>The development of children’s artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.</p>				
	<p>Cooking and Nutrition</p>	<p>Design: Developing, Planning and Communicating Ideas</p>	<p>Make</p>	<p>Evaluate</p>	<p>Technical Knowledge</p>
	<ul style="list-style-type: none"> Talk about healthy and unhealthy foods. Talk about having a balance of these. 	<ul style="list-style-type: none"> Provide opportunities to work together to develop and realise creative ideas. Encourage them to think about and discuss what they want to make. 	<ul style="list-style-type: none"> Provide children with a range of materials for children to construct with. 	<ul style="list-style-type: none"> Discuss problems and how they might be solved as they arise. 	<ul style="list-style-type: none"> Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue.

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	<ul style="list-style-type: none"> • Talk about likes and dislikes. • Use a range of tools with care and precision. 	<ul style="list-style-type: none"> • Look at products to generate inspiration and conversation about art and artists. 		<ul style="list-style-type: none"> • Reflect with children on how they have achieved their aims. 	<ul style="list-style-type: none"> • Provide a range of materials and tools and teach children to use them with care and precision.
Development Matters	<p>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.</p>				
Vocabulary	<p>Plan, ideas, design, make, build, construct, join, shape, tools, change, like, dislike, different, improve, healthy, unhealthy, fruit, vegetable, clean, safe, ingredients, cut, sew.</p>				
ELG Creating with Materials	<p>Children at the expected level of development will: - 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; - Make use of props and materials when role playing characters in narratives and stories.</p>				

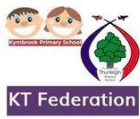
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Cycle 1 – Year 1 & 2			
	Autumn	Spring	Summer
Topic	Where do my trainers take me/ Let's go wild	Once Upon a Time	Where in the World
Knowledge	<p>Food Technology: Dips and dippers</p> <ul style="list-style-type: none"> • Know how to plan, make, and evaluate their own dip and dipper. • Know what makes a healthy and varied diet. • Know about the different food groups needed for a balanced diet. • Know how to prepare food hygienically. • Know how to use cutting utensils safely. 	<p>Mechanics: Moving storybook</p> <ul style="list-style-type: none"> • Know ways that sliders are used in everyday objects. • Know how sliders can be used through exploring a variety of different examples in moving story books. <p>Know the importance of considering the audience when designing and making a storybook.</p>	<p>Food Technology: Soup making/Pizza Making:</p> <ul style="list-style-type: none"> • Know what a healthy and varied diet is. • Know of the food group and that we must eat a balance of foods to have a healthy and varied diet. • Know of existing healthy recipes. • Know to consider audience and purpose when planning a healthy meal. • Know where different fruits and vegetables come from.
Skills	<p>Through making their own dip, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing products (dips) to inform their design ideas. • Gather the views of others to support the design process. <p><u>Design:</u></p>	<p>Through making their own moving story book, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing examples of moving story books to explore how levers, sliders, wheels, and winding mechanisms work. <p><u>Design:</u></p> <ul style="list-style-type: none"> • Design an appealing and functional moving storybook. • Model and communicate their ideas through drawings and discussions. 	<p>Through making their own healthy soup or pizza, which is appealing to a child, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing products (soups and pizzas) to inform their design ideas. • Gather the views of others to support the design process. <p><u>Design:</u></p>

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	<ul style="list-style-type: none"> Design an appealing dip based on a design criteria. Generate, develop, and communicate their design ideas. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, peeling, grating, and mixing, understanding how to use these tools safely and hygienically. Select and use a range of ingredients, according to their characteristics. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. 	<ul style="list-style-type: none"> Consider the views of others to improve their designs. <p><u>Make:</u></p> <ul style="list-style-type: none"> Use a range of tools and equipment to perform practical tasks, for example, cutting and joining. Select and use a wide range of materials, thinking about their properties and characteristics. <p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> Use mechanisms in their moving storybooks (levers, sliders, wheels, and winding mechanisms). <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their design and final story book against design criteria. Evaluate a range of existing storybooks to inform their own designs. 	<ul style="list-style-type: none"> Design an appealing pizza/soup based on a design criteria. Generate, develop, and communicate their design ideas. Justify their choices of ingredients, explaining why they have chosen them. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, peeling, grating, and mixing, understanding how to use these tools safely and hygienically. Select and use a range of ingredients, according to their characteristics. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. <p>Evaluate their ideas and products against design criteria.</p>
Vocabulary	Dips, hummus, guacamole, salsa, raita, Thousand Island, dippers, crackers, breadsticks, carrots, cucumber, pepper, nachos, pitta bread, ingredients, equipment: cooking tools, spoon, knife, bowl, grater, chopping board	Product, audience, purpose, design criteria, mechanisms, slider, lever, template, wheel, winding mechanism.	Knife, rolling pin, scales, measure cut, utensils, ingredients, healthy, diet, balanced, varied.
FLASHBACK –Links to previous learning			



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Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors			Marvellous Middle: Seaside day and puppet performance.
Assessment Opportunities			
Cycle 1 – Year 3 & 4			
	Autumn	Spring	Summer
Topic	Rocks, Shocks and Shakes	From Snozzcumpers to Perfect Potions	Dress to Impress

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<p>knowledge</p>	<p><u>Stone Age Shelter</u></p> <ul style="list-style-type: none"> • Know that when designing a shelter, the purpose must be considered carefully. • Know properties of materials and the importance of considering these and selecting materials carefully when designing and making a product. • Know different techniques that they can use for construction. • Know how to make a structure more stable. 	<p><u>Potion Packaging</u></p> <ul style="list-style-type: none"> • Know that packaging is carefully designed for an audience and a purpose. • Know that packaging should contain and protect the product, attract the audience and persuade them to buy it. • Know that when designing packaging, audience and purpose must be considered carefully. • Know that packaging should also inform people about the product. • Know that different factors can affect the audience. For example, choice of colours and images, the description/information provided, the font used and the slogan. • Know that the properties of a net create different 3D shapes. 	<p><u>Upcycling:</u></p> <ul style="list-style-type: none"> • Know that upcycling is part of the recycling movement, encouraging people to reuse old, unwanted items for a new purpose. • Know how clothing can be upcycled to create new designs. • Know techniques that can be used to upcycle clothing. • Know skills for cutting, joining and adding detail to the material.
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Skills	Through making their own stone age shelter, children will learn to...	Through making the packaging for their potion, children will learn to...	Through making an upcycled outfit for a fashion show, children will learn to...
	<p>Through making their own stone age shelter, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Research the homes early humans made in the stone age, looking at the natural materials and resources they used for shelter and protection. • Use their findings to inform the designs of their own shelters. <p><u>Design:</u></p> <ul style="list-style-type: none"> • To design a shelter, which is fit for purpose and uses only natural materials available in The Stone Age. • To communicate their ideas through annotated sketches and presenting these in discussion. • To consider the views of others to improve their designs. <p><u>Make</u></p> <ul style="list-style-type: none"> • To use their knowledge of Forest School skills to select and use a range of tools and equipment to create their shelter. <p><u>Technical Skills:</u></p> <ul style="list-style-type: none"> • To strengthen materials and structures, to make them more stable and weatherproof. 	<p>Through making the packaging for their potion, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing examples of packaging to understand the purpose of packaging. • To gather the views of others to inform their design choices, ensuring their packaging is appealing to their desired audience. <p><u>Design:</u></p> <ul style="list-style-type: none"> • To design a label and packaging box for their potion that is fit for purpose and appealing to their audience. • To apply their knowledge and understanding of nets and 3D shapes, to create a box for their potion bottle. • To communicate their ideas through annotated sketches and prototypes. • To consider the views of others to improve their designs. <p><u>Make</u></p> <ul style="list-style-type: none"> • To select from and use a wide range of tools to perform practical tasks, including measuring, joining, cutting, and colouring. 	<p>Through making an upcycled outfit for a fashion show, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing examples of upcycled clothing to inform design ideas. • To gather the views of others to inform their design choices, ensuring their fashion design is appealing to their desired audience. <p><u>Design:</u></p> <ul style="list-style-type: none"> • To design an upcycled item of clothing, which is fit for purpose and aesthetically appealing. • To communicate their ideas through annotated sketches and presenting these in discussion. • To consider the views of others to improve their designs. <p><u>Make</u></p> <ul style="list-style-type: none"> • To select from and use a wide range of tools to perform practical tasks, including cutting, joining and adding detail to fabric. • To carefully select textile materials, considering their properties and characteristics. <p><u>Evaluate:</u></p>

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	<p><u>Evaluate:</u></p> <ul style="list-style-type: none"> To evaluate their ideas and products against their own design criteria. To consider the success of their shelter and suggest changes they would make to improve it. 	<ul style="list-style-type: none"> To carefully select materials, considering their properties and characteristics. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> To evaluate their ideas and products against their own design criteria. To consider the success of their packaging and suggest changes they would make to improve it. 	<ul style="list-style-type: none"> To evaluate their ideas and products against their own design criteria. To consider the success of their clothing item and suggest changes they would make to improve it.
Vocabulary	Audience, Purpose, Evaluate, Design, Review, Materials, Waterproof, Durable, Structure, Join, Combine	Audience, Purpose, Evaluate, Design, Protect, Persuade, Attract, Contain, Inform, Join, Net, Cuboid, Cut, Stick, Measure, Draw, Scale, Review	Audience, Purpose, Evaluate, Design, Review, Seam, Join, Stitch, Embroidery, Upcycle, Reuse, repurpose, print. Applique, attach, sew
FLASHBACK –Links to previous learning	Year 1 and 2- Rapunzel Tower (building a stable structure).		Year 1 and 2 – Punch and Judy Hand Puppets
Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors	Sparkling Start: Making Stone Age Recipes	Fabulous Finish: Roald Dahl Revolting Recipes	Fabulous Finish: Upcycling, creating a futuristic outfit
Assessment Opportunities			

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Cycle 1 – Year 5 & 6			
	Autumn	Spring	Summer
Topic	How has the conflict of World War Two shaped British history?	How should we unravel the past? - Ancient Egypt	Can chocolate transform the world? - Maya
Knowledge	<p>Prepare food for an end of war street party:</p> <ul style="list-style-type: none"> • Know how to safely handle and store ingredients and cooked food. • Know the importance of personal hygiene when cooking. • Know the principles of a healthy and varied diet. • Know how to follow a recipe accurately. • Know how to weigh and measure ingredients accurately. • Know how to use an oven safely. • Know how to adapt recipes. • Know how to use utensils safely and correctly. • Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. 	<p>Design a ‘Throne fit for a Pharaoh’</p> <ul style="list-style-type: none"> • Know how to research and develop design. • Know that designs should be innovative, functional, appealing fit for purpose. • Know the need to consider audience and purpose when designing, making and evaluating. • Know how to generate, develop, model, and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, and prototypes. • Know how to select tools to perform practical tasks with wood, for example, cutting, shaping, joining, and finishing accurately. • Know how to select from and use a wider range of materials and components. • Know how to investigate and analyse a range of historical and existing throne designs. • Know how to evaluate their ideas and products against their own design criteria. • Know the value of the views of others to improve their work. • Know how key events and individuals in design and technology have helped shape the world. - Focus on chair designers. 	<p>Design a chocolate bar product</p> <ul style="list-style-type: none"> • Know how to use research to develop designs. • Know that designs should be innovative, functional, appealing and fit for purpose. • Know the need to consider audience and purpose. • Know how to generate, develop, model, and communicate their ideas through discussion, annotated sketches and prototypes. • Know how to select from and use a wider range of ingredients. • Know how to investigate and analyse a range of existing chocolate products. • Know how to evaluate ideas and products against their own design criteria. • Know the value of the views of others to improve their work. • Know that computer-aided design can improve their design process. • Know that pattern pieces can be important to developing a product (nets for packaging & moulds). • Know how to use computer software to present their research and make informed decisions when designing their products.

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		<ul style="list-style-type: none"> • Know how to strengthen, stiffen and reinforce more complex structures. 	
<p>Skills</p>	<p>Through making food for a WW2 street party, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at dishes and recipes from WW2 and identify ingredients and cooking methods. • Consider the views of others when planning their spread for the street party. <p><u>Design:</u></p> <ul style="list-style-type: none"> • Refine recipes to design an appealing party food spread. • Adapt quantities in recipes by scaling up or down appropriately to ensure enough for the audience. <p><u>Make:</u></p> <ul style="list-style-type: none"> • Use a range of baking and cooking techniques, selecting and using appropriate utensils. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> • Evaluate the success of their party spread, considering what was popular/successful and what they would do differently. 	<p>Through making a throne that is fit for a Pharaoh, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing examples of chairs and other thrones to inform design ideas, construction of chairs and wider designers of furniture . <p><u>Design:</u></p> <ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of an innovative, functional, and appealing throne, fit for a Pharaoh. • Generate, develop, and communicate their ideas through discussion and annotated sketches, to create a scale prototype • Understand that pattern pieces and computer-aided design enable accuracy. <p><u>Make:</u></p> <ul style="list-style-type: none"> • Use a wide array of tools to cut, shape, join and finish. • Make informed choices about a range of materials and components that support functional and aesthetic properties. 	<p>Through making their own chocolate bar, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at a range of existing chocolate bars to understand the purpose of packaging. • To gather the views of others to inform decisions about the ingredients of their chocolate bars. • Understand where a range of ingredients are grown and processed. <p><u>Design:</u></p> <ul style="list-style-type: none"> • Design packaging for their chocolate bar that is fit for purpose and appeals to their audience. • Design an appealing chocolate bar that appeals to their audience. • Use research and develop design criteria to inform the design of an innovative, functional, and appealing chocolate bar for a target market. • Generate, develop, and communicate their ideas through discussion and annotated sketches, to create a scale prototype

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		<p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen, and reinforce complex structures. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their ideas against their own design criteria. Consider the views of others to identify ways that they can improve their work. 	<ul style="list-style-type: none"> Understand that pattern pieces and computer-aided design enable accuracy. <p><u>Make:</u></p> <ul style="list-style-type: none"> Use a wide array of tools to cut, shape, join and finish. Make informed choices about a range of materials and components that support functional and aesthetic properties. Prepare and cook a variety of dishes using a range of cooking techniques <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their ideas against their own design criteria. Consider the views of others to identify ways that they can improve their work.
Vocabulary	Rations, seasonality, variety of ingredients grown, reared, caught, processed, substitute, microorganisms, allotments, savoury, dig to victory, ingredients, measure, oven, timings, recipes, hygiene, nutrition.	Design brief, product, culture, make, audience, generate, develop, model, communicate ideas, annotated sketches, tools, measure, cut, sand, joints, jynx joint, jig, legacy, historical influence prototypes.	Design brief, product, make, audience, nets generate, develop, model, communicate ideas, annotated sketches, prototypes, market research, ratio, pitch enterprise, industry and the wider environment.
FLASHBACK –Links to previous learning	Year 1 and 2- Fruit Salad Year 1 and 2- Where in the World, knowledge of food origins Year 3 and 4 – Around the world in 80 days (Street Food Party)	Year 1 & 2 - Rapunzel Towers Year 3 & 4 – Stone Age Shelters	Year 3 and 4 – Potion Packaging

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Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors	Fabulous Finish – Street Party		Fabulous Finish – Chocolate Dragon Den
Assessment Opportunities			
Cycle 2 – Year 1 & 2			
	Autumn	Spring	Summer
Topic	Castles	Growing	What can you see beside the sea?
Knowledge	<u>Rapunzel towers</u> <ul style="list-style-type: none"> • Know how to make a strong and stable tower. • Know how to select appropriate materials. • Know how to research different types of tower structures. • Know how to design a tower fit for purpose and use Rapunzel to generate the design criteria. • Know how to evaluate and explore how to make their tower stronger. 	<u>Fruit salad</u> <ul style="list-style-type: none"> • Know how to explain which fruits work well together • Know the bridge, claw and fork secure way of cutting. • Know how to use a vegetable peeler and grater safely. • Know where a range of fruit and vegetables come from. • Know what is needed for a balanced and varied diet. • Know how to evaluate each other's products and give suggestions for improvement. 	<u>Punch and Judy puppets</u> <ul style="list-style-type: none"> • Know about different types of puppets. • Know about traditional Punch and Judy puppet shows. • Know how to design purposeful products, for a specific audience, linked to puppets. • Know how to create models to communicate design ideas. <p>Know how to use a design criteria to decorate their puppets to represent a character.</p>

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Skills	Through making their own tower, children will learn to...	Through making their own fruit salad, children will learn to...	Through making their own puppets, children will learn to...
	<p>Through making their own tower, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Look at a range of materials and their properties to inform their design ideas. Gather the views of others to support the design process. <p><u>Design:</u></p> <ul style="list-style-type: none"> Design a purposeful tower that fits a design criteria. Generate, develop, and communicate their design ideas, through labelled drawings and discussion. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining, and constructing. Select and use a range of materials, according to their characteristics to ensure the tower is strong. <p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> Make structures stronger, stiffer, and more stable, by combining materials. <p><u>Evaluate:</u></p>	<p>Through making their own fruit salad, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Select ingredients by trying and testing a range of fruits, to inform design choices. Gather the views of others to support their design of an appealing fruit salad. <p><u>Design:</u></p> <ul style="list-style-type: none"> Design a fruit salad that is appealing and healthy. Generate, develop, and communicate their design ideas, through labelled drawings and discussion. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, and mixing ingredients. Select and use a range of ingredients, which are healthy. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their final fruit salad against a design criteria. Consider changes they would make. 	<p>Through making their own puppets, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Look at existing examples of puppets to inform their design choices. Gather the views of others to support their design of an appealing puppet. <p><u>Design:</u></p> <ul style="list-style-type: none"> Design a hand puppet, which is functional and appealing. Generate, develop, and communicate their design ideas, through creating a mock-up of their design idea. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining and decorating. Select and use a range of textile materials. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their final puppet against a design criteria. Consider changes they would make.

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	<ul style="list-style-type: none">• Test that their product is fit for purpose. <p>Evaluate their ideas and products against a design criteria.</p>		
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Vocabulary	Construction, Engineer, buildings, houses, Structure, Joining	Fruit, Nutrients, Pith, Salad, Prepare, Flesh, Chop, cut.	Puppet, Textile, Needle, Thread, Stitch, shape, cut, measure, mark out
FLASHBACK –Links to previous learning			
Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors			Marvellous Middle: Seaside day and puppet performance.
Assessment Opportunities			
Cycle 2 – Year 3 & 4			
	Autumn	Spring	Summer
Topic	What's Going on Inside?	Around the World in 80 Days	Invasion!
Knowledge	<u>Operation Style Game</u> <ul style="list-style-type: none"> Know about bones, muscles, and organs in the human body, linked to their learning in science. Know about electrical systems and components. Know what is needed for a complete, simple series circuit. Know if materials are conductors or insulators of electricity. Know the importance of considering audience and purpose when designing and making a board game. 	<u>Street Food Recipe and Carton design</u> <ul style="list-style-type: none"> Know the importance of hygiene, when cooking and preparing food. Know safety precautions that must be taken when preparing and cooking food. Know how to use cooking utensils safely and accurately. Know what makes a healthy meal. Know about seasonality, and know how and where a variety of ingredients come from. Know about different foods from around the world 	<u>Make a working catapult:</u> <ul style="list-style-type: none"> Know the construction and function of Roman catapults. Know about materials that are suitable for a catapult. Know how to test a catapult to evaluate its success. Know how to create a lever to fire a catapult. <u>Roman Purse</u> <ul style="list-style-type: none"> Know about purses and their use in the Roman Times.

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	<ul style="list-style-type: none"> Know the importance of testing ideas before starting the making progress. 	<ul style="list-style-type: none"> Know how to use other countries as inspiration to create and make their own street food. <p><u>Ethnic Sewin Patterns</u></p> <ul style="list-style-type: none"> Know different types of sewing stitches and what they might be used for. Know of different patterns from around the world, including colours and designs they use. Know how to use Binca to design and create a pattern from a country of the world. 	<ul style="list-style-type: none"> Know about the purpose of a purse. Know different types of sewing stitches and their uses. Know methods that can be used to construct a purse.
Skills	<p>Through making their own electronic board game, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Look at existing products to inform their game design ideas. Test if materials are conductors or insulators of electricity, to inform their choice of materials. Explore electrical circuits and components to understand how electrical systems work. <p><u>Design:</u></p> <ul style="list-style-type: none"> Design an electrical circuit that will allow a bulb to light, when the edge of the game box is touched. 	<p>Through making an Ethnic Sewing Pattern and designing a Street Food Recipe, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Look at existing recipes from around the world, understanding their traditional dishes, flavours and ingredients. Gather the views of others to inform their design choices. Look at traditional patterns and colours used to represent countries around the world and use this to inform design decisions. 	<p><u>Through making a catapult and Roman purse, children will learn to...</u></p> <p><u>Research:</u></p> <ul style="list-style-type: none"> Look at examples of catapults to explore how mechanisms are used to create movement. Look at designs and materials used in the Roman Times for purses, using this research to inform their own designs. <p><u>Design:</u></p> <ul style="list-style-type: none"> Design a purse that is appealing and fit for purpose. Design a catapult that is functional and meets the design criteria.

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	<ul style="list-style-type: none"> Consider the properties of materials when designing. Generate, develop, test and communicate their design ideas. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining. Select and use a range of materials, according to their characteristics and properties <p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> Understand and use electrical systems in their games (series circuits). <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Test design ideas and adjust them to improve. 	<p><u>Design:</u></p> <ul style="list-style-type: none"> Design an appealing recipe, which represents a country, for a street food party. Design the packaging for their street party food, thinking carefully about the purpose of the packaging. Design an appealing pattern, which represents a country of their choice. Develop design ideas and justify their choices. Consider the views of others to improve their designs. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining, strengthen and decorate. Select and use a range of materials, according to their characteristics and properties. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing dishes from around the world. Evaluate their ideas and products against a design criteria. 	<ul style="list-style-type: none"> Consider the properties of materials when designing and planning. Generate, develop, test and communicate their design ideas. <p><u>Make:</u></p> <ul style="list-style-type: none"> Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining, strengthening and decorate. Select and use a range of materials, according to their characteristics, properties, and aesthetic qualities. Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). <p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> Use mechanical systems (levers) to create movement for a catapult. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing purses and catapults. Evaluate their ideas and products against design criteria. Consider the views of others and use these to evaluate and adapt their designs.
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KT Federation Curriculum Progression

Vocabulary	Audience, Purpose, Game, Circuit, Electricity, Design, Research, Evaluate, Properties, Conductors, Insulators, Materials, Bulb, Components	Audience, Purpose, Evaluate, Design, Review, Seam, Join, Stitch, Embroidery, Applique, attach, Binca, Inspired Recipe, Utensils, Cook, Meal, Ingredients, Flavours, Diet, Healthy, Seasonality, Grown	Audience, Purpose, Evaluate, Design, Review, Seam, Join, Stitch, Embroidery, Applique, attach, Felt, Lever, mechanism, construct, function, materials, test, adjust
FLASHBACK –Links to previous learning	Science: Electricity	Y1 & 2: Fruit Salad, Dips and Pizza Making Y1&2: Punch and Judy Puppets	Year 1 and 2- Moving storybook Y1 & 2: Castles (Rapunzel Towers) Year 1&2: Punch and Judy Puppets
Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors	Homework Menu Task – Make a Fabulous Healthy Food English – Persuasive Adverts & Instructions for Board Games Fantastic Finish: Board Game ‘release’ day, sharing cross curricular work with parents.		
Assessment Opportunities			

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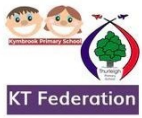
Cycle 2 – Year 5 & 6			
	Autumn	Spring	Summer
Topic	What make us and our community marvellous?	What is the solution to pollution?	What puts the game in gaming? Ancient Greeks
Knowledge	<p>Design an Automaton for a purpose.</p> <p>Know the need to aim at particular individuals or groups.</p> <p>Know how to generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes.</p> <p>Know how to select tools to perform practical tasks. [for example, cutting, shaping, joining and finishing], accurately.</p> <p>Know how to select from and use a wider range of materials and components.</p> <p>Know how to evaluate their ideas and products against their own design criteria.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Know how to strengthen, stiffen and reinforce more complex structures.</p>		<p>Design an Ancient Greek themed board game:</p> <ul style="list-style-type: none"> • Know that games are designed for a desired audience and purpose. • Know that audience and purpose must be carefully considered when designing a game. • Know how to embed Ancient Greek knowledge and cultural designs into a board game. • Know how to develop a game concept that is entertaining and appropriate for their desired audience. • Know properties of materials and the importance of considering these when selecting materials for their game. • Know of a range of tools that can be used to create a board game and be able to use this knowledge to make informed decisions about choice of tools.

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<p>Skills</p>	<p>Through designing and creating an automaton, children will learn to...</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at existing examples of automaton designs, purpose to inform design ideas & construction. <p><u>Design:</u></p> <ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of an innovative, functional, and appealing automaton that engages target audience. • Generate, develop, and communicate their ideas through discussion and annotated sketches. • Understand that pattern pieces and computer-aided design enable accuracy. <p><u>Make:</u></p> <ul style="list-style-type: none"> • Use a wide array of tools to cut, shape, join and finish. • Make informed choices about a range of materials and components that support functional and aesthetic properties. <p><u>Technical Knowledge:</u></p>		<p><u>Research:</u></p> <ul style="list-style-type: none"> • Look at different, existing board games to develop their understanding of different game concepts and features of a successful game. <p><u>Design:</u></p> <ul style="list-style-type: none"> • Use their research to develop an appealing game that is appropriate for their desired audience and is functional. • Generate, develop, and communicate their ideas through annotated sketches, computer aided design and discussion. <p><u>Make:</u></p> <ul style="list-style-type: none"> • Select and use tools and equipment to perform practical tasks, for example, measuring, cutting, joining, strengthening, and decorating. • Select and use a range of materials, according to their characteristics, properties, and aesthetic qualities. <p><u>Technical Knowledge:</u></p> <ul style="list-style-type: none"> • To strengthen, stiffen and reinforce more complex structures. • To use electrical systems in their games.
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	<ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen, and reinforce complex structures. Apply their understand of mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] successfully <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Evaluate their ideas against their own design criteria. Consider the views of others to identify ways that they can improve their work. 		<p><u>Evaluate:</u></p> <ul style="list-style-type: none"> Explore and evaluate a range of existing board games. Evaluate their ideas and products against design criteria. Consider the views of others and use these to evaluate and adapt their designs.
Vocabulary	Automaton, cams, levels, pulleys, crank, linkages & mechanical systems. Audience, purpose, game concept, prototypes, functions, evaluate, design, research, make.		Audience, purpose, game concept, prototypes, functions, evaluate, design, research, make
FLASHBACK –Links to previous learning	Year 3 and 4 – Invasion (Catapults) Year 1 and 2- (Moving Storybooks)	Year 3 & 4 – Dress to Impress (Upcycled Clothing) Year 3 & 4 – Invasion (Roman Purses) Year 1 & 2 – Punch and Judy Hand Puppets	Year 3 & 4 – Electrical Board Games (What’s going on inside?)
Enrichment - Sparkling Starts/Marvellous Middles/Fantastic Finishes/Visits & Visitors			
Assessment Opportunities			



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*Our vision is to work in partnership with families to unlock the potential of every individual.
Together, we nurture a self-belief and a lifelong passion for learning*