LITTLETON GREEN COMMUNITY SCHOOL

DESIGN AND TECHNOLOGY

"At Littleton Green, we believe in nurturing curiosity, creativity, and practical problem-solving through Design and Technology. We empower our children to explore how things work, design with purpose, and bring their ideas to life using a range of tools and materials. Through hands-on experiences, collaboration, and critical thinking, we aim to develop the designers, engineers, and innovators of the future—confident learners who aren't afraid to take risks, learn from mistakes, and improve the world around them.

Mrs. R. Flynn

Design and Technology Subject Lead

SUBJECT Curriculum Aims

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the **creative, technical and practical expertise** needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to **design and make** high-quality prototypes and products for a wide range of users
- Critique, **evaluate** and test their ideas and products and the work of others
- Understand and apply the principles of **nutrition** and learn how to cook.

EYFS and Design and Technology

Expressive arts and design educational programme (taken from the EYFS Framework 2020)

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.

Early learning goals that link to design technology:

EYFS - 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.
- Make use of props and materials when role-playing characters in narratives and stories.

EYFS – Physical development

ELG Fine motor

- Use a range of small tools, including scissors, paintbrushes and cutlery.

What does Design and Technology look like at Littleton Green Community School?

Each topic begins with sharing a 'Big Question'. This enables the pupils to see the bigger picture and gives purpose to what they are learning.

BIG QUESTION

ENDPOINT ASSESSMENT

This is a product to showcase the learning which has taken place and the knowledge learnt. It can involve a prior session to create success criteria based on the concepts and a critical evaluation lesson.

ENDPOINT EXPLORATION

At the beginning of the topic, teachers share a WAGOLL (What a Good One Looks Like). Here the learning process is explored and the children have the opportunity to input to their journey to the endpoint.

THE LEARNING JOURNEY

A series of learning opportunities where concepts are built on. Here the meaning is made and connections are formed.

ACTIVATING PRIOR KNOWLEDGE

Throughout the topic, there are built in opportunities for children to access their prior knowledge to help them make connections and make the learning stick. This may be through key vocabulary, knowledge organisers, carefully thought out questioning and more.

KNOWLEDGE ORGANISERS

A resource which is available to children for them to learn the 'sticky knowledge' to master the learning. These are working documents that the children refer to and add their new learning to.

KEY VOCABULARY

At the start and throughout the learning journey, children will be taught key vocabulary need to access the learning and secure the key knowledge .

LITTLETON GREEN COMMUNITY SCHOOL

DESIGN AND TECHNOLOGY

START

Early Years

EYFS

EXPRESSIVE ARTS AND DESIGN

- Creating with materials - use and explore a variety of materials, share and explain creations and make use of props and materials when role-playing

PHYSICAL DEVELOPMENT

- Fine motor - use a range of small tools

Year 1

1

- What makes a smoothie healthy and yummy?
- How can we make story characters move to help tell a story?
- How can we design a toy that moves smoothly when we pull it?
- How can we make a pencil pot that doesn't fall over?
- How can we join materials to make a puppet?

Year 2

2

- How can we design a wrap that is healthy and tasty?
- How can we make a monster that moves using levers and pivots?
- How can we design a fairground wheel that spins smoothly and safely?
- How can we make Baby Bear's chair strong and stable so it doesn't wobble or fall over?
- How can we make and decorate a pouch that is useful and looks great?

Year 3

3

- How can we create a tasty tart using seasonal ingredients?
- How can we use air to make a toy move in a fun and surprising way?
- How can we design a castle that is strong, useful, and fit for a king or queen?
- How can we design an Egyptian collar that shows status and tells a story through stitches and shapes?
- How can we use light to make our poster eye-catching and informative?

Year 4

4

- How can we change a biscuit recipe to make it delicious and different?
- How can we design a slingshot car that travels as far and fast as possible?
- How can we design a pavilion that is both strong and inviting for people to use?
- How can we design a book sleeve that protects our books and shows our personality?
- How can we design a torch that works well and is useful for a specific person or purpose?

Year 5

5

- How can we create a Bolognese sauce that is tasty, healthy, and suited to different people's needs?
- How can we use gears and pulleys to make a machine that solves a real problem or makes a task easier?
- How can we design a strong and stable bridge that can hold weight and looks great?
- How can we design and make a stuffed toy that is unique, comfortable to cuddle, and built to last?
- How can we use electricity to make our drawings come to life in exciting and creative ways?

Year 6

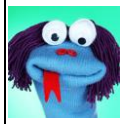
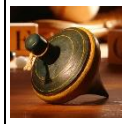
6

- How can we plan and prepare a delicious, balanced 3-course meal that stays within a budget?
- How can we design an automata toy that tells a story or creates movement in an interesting and clever way?
- How can we design playground apparatus that is safe, fun, and suitable for children to play on?
- How can we design and make a waistcoat that fits well, looks great, and suits the needs of the person who will wear it?
- How can we design a steady hand game that is challenging, fun, and works reliably?

WHOLE SCHOOL OVERVIEW OF CONCEPTS				
EYFS				
Designing	**Making**	**Evaluating**	**Technical Knowledge**	**Food Technology**
• Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function.	• Use a range of small tools, including scissors, paintbrushes and cutlery.	• Share their creations, explaining the process they have used.		• Use a range of small tools, including scissors, paintbrushes and cutlery.
Key Stage 1				
Designing	**Making**	**Evaluating**	**Technical Knowledge**	**Food Technology**
• Design – purposeful, functional, appealing products for themselves and other users based on design criteria. • Design – 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.	• Use the basic principles of a healthy and varied diet to prepare dishes. • Understand where food comes from.
Key Stage 2				
Designing	**Making**	**Evaluating**	**Technical Knowledge**	**Food Technology**
• 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 wide 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.	• 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.

Year group Coverage and Progression of Knowledge

EYFS	
Key Concepts	
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. • Make use of props and materials when role-playing characters in narratives and stories.
EYFS – Physical development **ELG Fine motor**	• Use a range of small tools, including scissors, paintbrushes and cutlery.

	Block 1		Block 2		Block 3	
Preschool/ Nursery	 ***Build it up***	 ***Building Bridges***	 ***Icy Dens***	 **Build a Dinosaur**	 ***Sun Hats***	 ***Animals around the world***
PRODUCT	*Make simple structures using a range of materials.*	*Make simple structures using a range of materials.*	*Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests.*	*Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests.*	*Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests.*	*Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests.*
Reception	 ***Building Bridges***	 ***Puppets and Pop ups***	 ***Toys from the past***	 ***Seed Shakers***	 ***Animal Homes***	 ***Boat Builders***
PRODUCT	*Use a variety of resources to make products inspired by existing products,*	*Construct simple structures and models using a range of materials.*	*Explore and create using a wide range of materials and components, including upcycled materials, construction kits, textiles and ingredients.*	*Adapt and refine their work as they are constructing and making.*	*Use a variety of resources to make products inspired by existing products.*	*Construct simple structures and models using a range of materials.*

Transition to KS1	*Through our bespoke curriculum, Reception children are introduced to the foundational skills of Design and Technology by engaging in a variety of creative and practical activities. They learn to choose appropriate resources and tools for different tasks, developing an understanding of how to use them correctly through experimentation. This helps them recognise the importance of selecting the right tool for the job and the health and safety requirements for use. In both planned activities and the continuous provision, children have access to construction materials and junk modelling, which encourages them to design and make their own creations. As they engage in these activities, they are encouraged to evaluate their work and consider ways to make improvements, fostering problem-solving and critical thinking. Children also explore existing products, learning about their purpose and how moving parts work. In Food Technology, they gain hands-on experience by making simple dishes such as cookies and pizza, learning to use kitchen equipment safely and correctly. Along with this, children are taught to wash their hands before preparing food and are introduced to the principles of healthy eating, understanding the importance of choosing nutritious foods for a balanced diet. These activities support the development of both practical and creative skills, preparing them for more complex work in Design and Technology as they move into Key Stage 1.*

YEAR 1					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Smoothies** **What makes a smoothie healthy and yummy?** **(6 Lessons)**	• use own ideas to design something and describe how their own idea works • explain to someone else how they want to make their product and make a simple plan before making	• use own ideas to make something • choose appropriate resources and tools	• explain what works well and not so well in the model they have made		• cut food safely
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Smoothie	*This project develops pupils' cultural capital by introducing them to basic cooking skills through making a smoothie. Pupils work together, building teamwork, communication, and sharing skills. A visit to the school kitchen gives them hands-on experience in a real cooking environment, helping them understand food hygiene and safety. The activity encourages healthy eating habits and curiosity about different fruits and flavours.* ***Significant person - Heston Blumenthal*** *His team helped develop "Love Smoothies," crafting vegetable-focused blends like "Broccoli and the Beast" and "Kale Kick" with full flavour appeal*			*blend, blender, chopping board, compare, cut, design, evaluate, flavour, fork, fruit, healthy, ingredients, juice, juicer, leaf, plant, recipe, root, seed, select, smoothie, stem, table knife, taste, tree, vegetable, vine*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **MECHANISMS: Moving Storybook** **How can we make story characters move to help tell a story?** **(4 Lessons)**	• use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making	• use own ideas to make something • make a product which moves • choose appropriate resources and tools	• describe how something works • explain what works well and not so well in the model they have made		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Moving storybook	*This project develops pupils' cultural capital by engaging them in designing and making a moving storybook, introducing basic skills in cutting, folding, and assembling simple mechanisms. Pupils explore different types of moving storybooks to understand how mechanisms bring stories to life, fostering creativity and fine motor skills. This hands-on experience encourages a love of storytelling and an appreciation of how design enhances learning and play.* ***Significant person - David A. Carter*** *● Carter is a prolific pop-up book author and artist who is perhaps best known for his "Bugs" series of books, which use pop-up techniques to bring a whole world of quirky insects to life.* *● His work is highly engaging and interactive, which makes it especially attractive to young children.*			*adapt, assemble, design, design criteria, input, mechanism, model, sliders, test*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Proud**				
 **MECHANISMS: Wheels and Axles** **How can we design a toy that moves**	• use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making	• use own ideas to make something • make a product which moves • choose appropriate resources and tools	• describe how something works • explain what works well and not so well in the model they have made		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Pull-along toy	*This project develops pupils' cultural capital by engaging them in designing and making a pull-along toy with wheels and axles, introducing basic skills such as cutting, assembling, and decorating. Pupils explore different pull-along toys to*			*axle, axle holder, better, careful, choose, compare, design, dislike, like,*

smoothly when we pull it? **(5 Lessons)**		*understand how wheels and axles work to create movement and how toys encourage play and development. This hands-on activity fosters creativity, fine motor skills, and an appreciation of toys' role in childhood and culture.* ***Significant person - Henry Ford*** *● Revolutionised manufacturing methods by introducing a moving assembly line to make the automobile affordable for the general population.*			*mechanism, movement, product, straight line, tool, turn, user, wheel, worse*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils consider who they are designing for – identifying the user. Pupils thinking about what others might want from a design.				
 **STRUCTURES: Option 1: Stable structures** **How can we make a pencil pot that doesn't fall over?** **(5 Lessons)**	• use own ideas to design something and describe how their own idea works • explain to someone else how they want to make their product and make a simple plan before making	• use own ideas to make something • choose appropriate resources and tools	• describe how something works • explain what works well and not so well in the model they have made	• make their own model stronger	
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Pencil pot	*This project develops pupils' cultural capital by engaging them in designing and making stable pencil pots, introducing basic skills such as cutting, joining, and decorating. Pupils explore stable structures in everyday products to understand how shape and support help items stand firmly. This hands-on activity encourages creativity, problem-solving, and an early appreciation of engineering and design in daily life.* ***Significant person - Gustave Eiffel*** *● A French engineer born in 1832.* *● Designed interior structural elements of the Statue of Liberty.* *● Best known for the Eiffel Tower, which was designed by his company and named after him.*			*freestanding, stable, structure*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils consider who they are designing for – identifying the user. Pupils thinking about what others might want from a design.				
 **TEXTILES: Puppets** **How can we join materials to make a puppet?** **(4 Lessons)**	• use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making	• use own ideas to make something • make a product which moves • choose appropriate resources and tools	• explain what works well and not so well in the model they have made		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Puppet	*This project develops pupils' cultural capital by engaging them in designing and making a puppet using basic textile skills like cutting, joining, and decorating. Pupils watch a puppet show to experience storytelling through performance, deepening their understanding of how puppets are used across different cultures. This fosters creativity, fine motor skills, and an appreciation for cultural storytelling and craftsmanship.* ***Significant person - Jim Henson*** *Used fleece, felt, faux fur, and textiles to craft expressive Muppet characters.* *Techniques: Hand-sewing, foam sculpting, fabric dyeing.* *Created puppets like Kermit the Frog, Grover, and Animal, blending soft materials with vibrant personalities.*			*decorate, design, fabric, glue, model, hand puppet, safety pin, staple, stencil, template*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Empowered**				

YEAR 2					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Balanced Diet** **How can we design a wrap that is healthy and tasty?** **(6 Lessons)**	• think of an idea and plan what to do next		• explain what went well with their work		• weigh ingredients to use in a recipe • describe the ingredients used when making a dish or cake
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Wrap	*This project develops pupils' cultural capital by engaging them in designing and making a healthy wrap, introducing basic food preparation skills such as chopping, assembling, and hygiene. Pupils learn about the components of a balanced diet and how to make healthy food choices. A visit to the school kitchen provides hands-on experience in a real food preparation environment, helping pupils understand the importance of food safety and nutrition in everyday life.* ***Significant person - Jamie Oliver*** *● Helped raise awareness about the quality of school dinners in 2005. More recently, he has voiced concerns about the effect of the pandemic on food choices.* *● He supports teachers, charities and young people who are looking to change mindsets so every child gets healthy, nutritious food, providing the opportunity for dietary health.* *● He is also a celebrity chef who designs healthy and affordable meals for people to cook themselves.*			*appearance, balanced, carbohydrates, chopping board, combination, cut, dairy, design, design brief, diet, evaluate, feel, fruit, grate, grater, ingredients, menu, oils, proteins, review, scissors, smell, snip, spread Spreads, table knife, taste, vegetables*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Reflective/Democracy/Mutual respect:** Tasting and evaluating different food combinations.				
 **MECHANISMS: Making a Moving Monster** **How can we make a monster that moves using levers and pivots?** **(4 Lessons)**	• think of an idea and plan what to do next	• choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure	• explain what went well with their work		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Moving monster	*This project develops pupils' cultural capital by engaging them in designing and making a moving monster using simple mechanisms such as pivots and levers. Pupils explore a variety of moving products to understand how mechanisms create motion in toys and everyday items. This hands-on experience builds problem-solving skills, creativity, and an early understanding of engineering principles in fun and meaningful ways.* ***Significant person - Rube Goldberg*** *● An American cartoonist, Goldberg was best known for his popular cartoons depicting complicated gadgets performing simple tasks in indirect, convoluted ways.* *● These "Rube Goldberg machines" embody the principle of creating movement and reactions through a series of linked, mechanical actions.* *● His designs were whimsical and humorous, but provide a rich source of inspiration for understanding how levers, linkages, and pivots can interact.*			*axle, design criteria, input, linkage, mechanical, output, pivot, wheel*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **MECHANISMS: Fairground Wheel** **How can we design a fairground wheel that**	• think of an idea and plan what to do next	• choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure	• explain what went well with their work	• make a model stronger and more stable • use wheels and axles, when appropriate to do so	
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Fairground wheel model	*This project develops pupils' cultural capital by engaging them in designing and making a model fairground wheel, building key skills in planning, measuring, joining, and evaluating. Pupils work collaboratively, strengthening teamwork, communication, and problem-solving skills. A visit to a local Ferris wheel provides real-life context and inspiration, helping*			*design brief, design criteria, evaluate, frame, model, opinion, rotate, survey*

spins smoothly and safely? **(5 Lessons)**		*pupils understand how large structures are engineered for movement and enjoyment. This experience encourages curiosity about design, mechanics, and the role of fairgrounds in cultural and social life.* ***Significant person - George Washington Gale Ferris Jr.*** *Known for: Inventing the original Ferris Wheel*			
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect/Tolerance of those with different faiths and beliefs:** Pupils conduct simple surveys or discussions to gather opinions on what others need or like in a design.				
 **STRUCTURES: Baby Bear's Chair** **How can we make Baby Bear's chair strong and stable so it doesn't wobble or fall over?** **(4 Lessons)**	• think of an idea and plan what to do next	• choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure	• explain what went well with their work	• make a model stronger and more stable	
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Baby Bear's chair	*This project develops pupils' cultural capital by engaging them in designing and making a model chair for Baby Bear, inspired by the story of Goldilocks and the Three Bears. Pupils explore a range of real-world chairs to understand what makes structures strong and stable. Working collaboratively, they develop teamwork, communication, and problem-solving skills. This hands-on experience helps pupils make connections between storytelling, design, and the function of everyday objects in the world around them.* ***Significant person - Robin Day*** *(1915–2010)* *Iconic Chair: Polypropylene Chair (1963)* *Most famous mass-produced chair in British history* *Lightweight, stackable, affordable — used in schools, halls, and public spaces* *A symbol of modern, functional design*			*design criteria, man-made, natural, properties, structure, stable, shape, model, test*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Proud**				
 **TEXTILES: Pouches** **How can we make and decorate a pouch that is useful and looks great?** **(4 Lessons)**	• think of an idea and plan what to do next • explain why they have chosen specific textiles	• choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure	• explain what went well with their work		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Pouch	*This project develops pupils' cultural capital by engaging them in designing and making a pouch using basic textile skills such as measuring, cutting, joining, and decorating fabric. Pupils learn how textile products are made and explore the purpose and design of pouches and containers across different cultures and time periods. This hands-on experience fosters creativity, fine motor skills, and an appreciation for the role of textiles in everyday life and cultural heritage.* ***Significant person - Stella McCartney*** ● *Started out training to design and make suits.* ● *She now has a design label named after her.* ● *Stella McCartney was appointed creative director by Adidas for the 2012 Olympics, designing outfits for Team GB.* ● *As a vegetarian, she stays true to her beliefs by refusing to work with fur or leather.*			*decorate, fabric, fabric glue, knot, needle, needle threader, running stitch, sew, template, thread*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Empowered**				

YEAR 3					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Eating Seasonally** **How can we create a tasty tart using seasonal ingredients?** **(6 Lessons)**	• design a product and make sure that it looks attractive				• describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Seasonal tart	*This project develops pupils' cultural capital by engaging them in designing and making a tasty tart using seasonal ingredients, enhancing their understanding of nutrition, cooking skills, and food hygiene. A visit to a local supermarket allows pupils to explore fresh, seasonal produce and make informed choices about ingredients. This experience fosters awareness of sustainable eating, supports healthy lifestyle choices, and deepens appreciation for food's cultural and environmental significance.*			*complementary, country, cut, design, evaluate, export, fruit, grate, import, ingredients, Mediterranean, mock-up, mountain, peel, polar, seasonal, seasons, snip, taste, temperate, texture, tropical, vegetable, weather*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **MECHANISMS: Pneumatic Toys** **How can we use air to make a toy move in a fun and surprising way?** **(5 Lessons)**	• prove that a design meets a set criteria • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance	• follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes	• explain how to improve a finished model • know why a model has, or has not, been successful		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Pneumatic toys	*This project develops pupils' cultural capital by engaging them in designing and making pneumatic toys, building skills in planning, measuring, assembling, and evaluating pneumatic systems. Pupils work collaboratively, developing teamwork, communication, and problem-solving skills throughout the process. By exploring various pneumatic mechanisms used in real-world products, they gain an understanding of how air pressure powers movement and the role of engineering in everyday life.*			*diagram, evaluate, feedback, housing, linkage, mechanical system, mechanism, pivot, pneumatic system, thumbnail sketch*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect/Tolerance of those with different faiths and beliefs:** Pupils consider feedback from peers to suggest improvements. Pupils explain why they think certain aspects of a peer's design are effective or why they suggested specific improvements.				
 **STRUCTURES: Castles** **How can we design a castle that is strong, useful, and fit for a king or queen?** **(4 Lessons)**	• prove that a design meets a set criteria • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance	• follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • work accurately to measure, make cuts and make holes	• explain how to improve a finished model • know why a model has, or has not, been successful	• know how to strengthen a product by stiffening a given part or reinforce a part of the structure	
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Model castle	*This project develops pupils' cultural capital by engaging them in designing and making a model castle, building skills in planning, measuring, joining, and evaluating. Pupils work collaboratively, enhancing teamwork, communication, and problem-solving skills throughout the project. A visit to a local castle allows them to experience historical architecture firsthand, inspiring their designs and deepening their understanding of medieval history and cultural heritage. This connection enriches their appreciation of how castles were used for protection and community life in the past.*			*2D, 3D, castle, design, key features, net, scoring, shape, stable, stiff, strong, structure, tab*

		Significant person - Eugène Viollet-le-Duc ● *A French architect and author, Viollet-le-Duc was famous for his interpretive "restorations" of medieval buildings.* ● *He redesigned parts of the famed Notre-Dame Cathedral in Paris and numerous castles, enhancing the structures while maintaining their historical significance.* ● *He could provide a good example of understanding and employing 3D shapes and structures for creating strong architectural forms.*			
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils design a castle with key features to appeal to a specific person/purpose.				
 **TEXTILES: Cross Stitch and Appliqué** **How can we design an Egyptian collar that shows status and tells a story through stitches and shapes?** **(4 Lessons)**	• prove that a design meets a set criteria • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance	• follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • work accurately to measure, make cuts and make holes	• explain how to improve a finished model • know why a model has, or has not, been successful		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Egyptian collar	*This project develops pupils' cultural capital by engaging them in designing and making an Egyptian collar, developing skills in measuring, cutting, and assembling textiles and decorative materials. Pupils explore historical sources and artifacts to understand the cultural significance and symbolism of Egyptian jewellery. This deepens their appreciation of ancient cultures and how art and design reflect history, identity, and tradition.*			*asymmetrical, appliqué, cotton, cross-stitch, embellish, fabric, patch, pinking, polyester, running stitch, silk, symmetrical, template, thread, unique*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Empowered**				
 **ELECTRICAL SYSTEMS: Electric Poster** **How can we use light to make our poster eye-catching and informative?** **(4 Lessons)**	• prove that a design meets a set criteria • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance	• follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes	• explain how to improve a finished model • know why a model has, or has not, been successful		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Electric poster	*This project develops pupils' cultural capital by engaging them in designing and making an electrical poster, building basic skills in creating simple circuits. Pupils work together, enhancing teamwork, communication, and problem-solving abilities. By exploring everyday electrical products, they gain a greater understanding of how electricity powers devices and its importance in modern life, fostering curiosity about technology and its impact on society.*			*battery, bulb, circuit, circuit component, crocodile wire, design, design criteria, develop, electric product* *electrical system, feedback, final design, information design, initial ideas, peer-assessment, public, research, self-assessment, sketch*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Reflective**				

YEAR 4					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Adapting a Recipe** **How can we change a biscuit recipe to make it delicious and different? (6 Lessons)**	• use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work	• know which tools to use for a particular task and show knowledge of handling the tool • measure accurately	• evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved		• know how to be both hygienic and safe when using food • bring a creative element to the food product being designed
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Biscuit	*This project develops pupils' cultural capital by engaging them in adapting a biscuit recipe, building practical cookery skills such as measuring, mixing, and baking. A visit to the school kitchen gives pupils hands-on experience in a professional food preparation environment, deepening their understanding of food hygiene and safety. Through experimenting with ingredients and flavours, pupils develop creativity and an appreciation for how recipes can reflect personal and cultural tastes.*			*adapt, addition, appearance, budget, buttery, combine, comment, compare, construct, cream, crunchy, cuboid, cut, design, evaluate, fold, hygiene, ingredients, layout, market research, modify, multiplication, opinion, pounds, sieve, sift, target audience, taste, texture, unique, wooden spoon*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils conduct market research and identify a target audience.				
 **MECHANISMS: Making a slingshot car** **How can we design a slingshot car that travels as far and fast as possible? (4 Lessons)**	• use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated	• know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately	• evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Slingshot car	*This project develops pupils' cultural capital by engaging them in designing and building a slingshot car, developing skills in planning, measuring, assembling, and evaluating. Pupils work collaboratively, enhancing teamwork, communication, and problem-solving skills throughout the process. By exploring various mechanisms used in toys and machines, they gain a deeper understanding of how mechanical systems function and their applications in everyday life, fostering creativity and engineering awareness.*			*chassis, energy, kinetic, mechanism, air resistance, design, structure, graphics, research, model, template*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **STRUCTURES: Pivilians** **How can we design a pavilion that is both**	• use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated	• know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately	• evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**

<table>
<tr><td>strong and inviting for people to use?
(4 Lessons)</td><td>Model pavilion</td><td colspan="3">This project develops pupils' cultural capital by engaging them in designing and making a model pavilion, building skills in planning, measuring, joining, and evaluating. A visit to local structures allows pupils to observe architectural features, materials, and design styles firsthand, inspiring their own creations. This experience helps pupils appreciate how buildings reflect cultural identity, history, and community needs, broadening their understanding of architecture's role in society.</td><td>3D shapes, cladding, design criteria, innovative, natural, reinforce, structure</td></tr>
<tr><td>PURPLE / British Values Link</td><td colspan="5">Unique/Individual liberty: Pupils are able to make individual choices during the design element of this unit.
Reflective</td></tr>
<tr><td rowspan="3"> 
TEXTILES: Fastenings
How can we design a book sleeve that protects our books and shows our personality?
(4 Lessons)</td><td>• use ideas from other people when designing
• produce a plan and explain it
• persevere and adapt work when original ideas do not work
• communicate ideas in a range of ways, including by sketches and drawings which are annotated</td><td>• know which tools to use for a particular task and show knowledge of handling the tool
• know which material is likely to give the best outcome
• measure accurately</td><td>• evaluate and suggest improvements for design
• evaluate products for both their purpose and appearance
• explain how the original design has been improved
• present a product in an interesting way</td><td></td><td></td></tr>
<tr><td>PRODUCT</td><td colspan="3">CULTURAL CAPITAL</td><td>KEY VOCABULARY</td></tr>
<tr><td>Book sleeve</td><td colspan="3">This project develops pupils' cultural capital by engaging them in designing and making a book sleeve using textile skills such as measuring, cutting, and sewing. Pupils develop creativity, fine motor skills, and attention to detail. They also explore the cultural significance of textiles and how fabric designs can reflect identity, history, and traditions from around the world, fostering an appreciation of craftsmanship and cultural diversity.</td><td>criteria, fabric, fastening, fix, mock-up, stitch, template</td></tr>
<tr><td>PURPLE / British Values Link</td><td colspan="5">Unique/Individual liberty: Pupils are able to make individual choices during the design element of this unit.
Loving/Mutual respect: Pupils identify the features, benefits and disadvantages of a range of fastening types.</td></tr>
<tr><td rowspan="3"> 
ELECTRICAL SYSTEMS: Torches
How can we design a torch that works well and is useful for a specific person or purpose?
(4 Lessons)</td><td>• use ideas from other people when designing
• produce a plan and explain it
• persevere and adapt work when original ideas do not work
• communicate ideas in a range of ways, including by sketches and drawings which are annotated</td><td>• know which tools to use for a particular task and show knowledge of handling the tool
• know which material is likely to give the best outcome
• measure accurately</td><td>• evaluate and suggest improvements for design
• evaluate products for both their purpose and appearance
• explain how the original design has been improved
• present a product in an interesting way</td><td>• links scientific knowledge by using lights, switches or buzzers
• use electrical systems to enhance the quality of the product</td><td></td></tr>
<tr><td>PRODUCT</td><td colspan="3">CULTURAL CAPITAL</td><td>KEY VOCABULARY</td></tr>
<tr><td>Torch</td><td colspan="3">This project develops pupils' cultural capital by engaging them in designing and making a torch, building foundational skills in creating simple electrical circuits. Pupils work collaboratively, enhancing teamwork, communication, and problem-solving throughout the process. By exploring a variety of electrical products, they gain a deeper understanding of how electricity powers everyday devices, fostering curiosity about technology and its role in different cultures and industries around the world.
Significant person - Sir Joseph Swan
● English physicist and chemist. Invented the first electric light bulb in 1860, which used a glass, vacuum casing and filament, that we recognise in the bulbs of today. His original design was not very practical to power and Thomas Edison further developed this design.</td><td>battery, bulb, buzzer, circuit diagram, component, conductor, electrical item, electricity, electronic item, insulator, series circuit, switch, target audience, test, torch, wire</td></tr>
<tr><td>PURPLE / British Values Link</td><td colspan="5">Unique/Individual liberty: Pupils are able to make individual choices during the design element of this unit.
Loving/Mutual respect: Pupils design a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.</td></tr>
</table>

YEAR 5					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Developing a Recipe** **How can we create a Bolognese sauce that is tasty, healthy, and suited to different people's needs? (6 Lessons)**	• come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience	• use a range of tools and equipment competently	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria		• be both hygienic and safe in the kitchen • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Bolognese sauce	*This project enhances pupils' cultural capital by teaching them how to prepare a nutritious Bolognese sauce, developing essential cookery skills such as chopping, measuring, cooking, and food hygiene. A visit to the school kitchen provides hands-on experience in a real cooking environment, helping pupils understand professional food preparation and safety practices. A visit from a local farm supports learning about where ingredients come from and the importance of fresh, seasonal produce. Through exploring the cultural origins of the dish, pupils also gain an appreciation for international cuisines and the role of food in bringing people together across cultures.*			*beef, brand, cook, cross-contamination, cut, design, enhance, equipment, evaluate, farm, grate, hygiene, ingredients, label, measure, nutrient, nutrition, nutritional value, preference, press, process, recipe, safety, theme*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect/Tolerance of those with different faiths and beliefs:** Pupils research existing recipes and explain the farm-to-fork process.				
 **MECHANISMS: Gears and pulleys** **How can we use gears and pulleys to make a machine that solves a real problem or makes a task easier? (5 Lessons)**	• come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • design a product that requires pulleys or gears	• use a range of tools and equipment competently • make a prototype before making a final version • make a product that relies on pulleys or gears	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria	• links scientific knowledge to design by using pulleys or gears	
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Gear and pulley system	*This project develops pupils' cultural capital by introducing them to mechanical systems through designing and constructing pulley and gear mechanisms. Pupils build key D&T skills such as planning, measuring, assembling, and evaluating moving parts. Hands-on learning encourages problem-solving, creativity, and teamwork. Exploring real-world applications of pulleys and gears, such as in machinery and transportation, helps pupils understand the impact of engineering on daily life and different industries, broadening their awareness of how technology shapes societies worldwide.* ***Significant person - Leonardo da Vinci*** ● *An Italian polymath who designed innovative machines using gears and pulleys, demonstrating advanced mechanical understanding.* ● *His sketches and concepts laid the foundation for modern mechanical systems and engineering.*			*annotate, axle, force, gear, gear system, input, machine, market research, mechanism, output, problem, statement, pulley, pulley system, renewable energy, research, sustainability, teeth*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **STRUCTURES: Bridges**	• come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal	• use a range of tools and equipment competently • make a prototype before making a final version	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria		

How can we design a strong and stable bridge that can hold weight and looks great? **(4 Lessons)**	to a specific audience				
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Model bridge	*This project develops pupils' cultural capital by engaging them in the design and construction of a model bridge, building essential D&T skills such as planning, measuring, joining, and evaluating. Pupils work collaboratively, developing teamwork and communication skills throughout the process. A visit to a local bridge allows them to observe real engineering structures, understand different types of bridges, and consider factors like strength and design in the real world. This experience deepens their appreciation of engineering achievements and how infrastructure shapes communities and connects people across cultures and regions.* ***Significant person - Norman Foster*** *● Designer of the London Millennium Footbridge.*			*accuracy, aesthetics, arch bridge, assemble, beam bridge, bench hook/vice, corrugation, evaluate, factors, hardwood, joints, lamination, mark out, material properties, quality of finish, reinforce, rigid, sandpaper/glasspaper, softwood, stability, stiffness, strength, technique, tenon saw/coping saw, truss bridge, visual appeal, wood file/rasp, wood sourcing*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Reflective**				
 **TEXTILES: Stuffed Toys** **How can we design and make a stuffed toy that is unique, comfortable to cuddle, and built to last?** **(4 Lessons)**	• come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience	• use a range of tools and equipment competently • make a prototype before making a final version	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Stuffed toy	*This project develops pupils' cultural capital by engaging them in the design and creation of a soft toy, building important D&T skills such as sewing, cutting, measuring, and evaluating. Pupils work collaboratively, enhancing teamwork and communication skills throughout the making process. They also explore the cultural significance of toys and how soft toys can reflect identity, comfort, and creativity across different cultures. This hands-on experience fosters creativity, fine motor skills, and an appreciation of craftsmanship.*			*accurate, annotate, appendage, blanket-stitch, design criteria, detail, evaluation, fabric, sew, shape, stuffed toy, stuffing*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Proud**				
 **ELECTRICAL SYSTEMS: Doodlers** **How can we use electricity to make our drawings come to life in exciting and creative ways?** **(4 Lessons)**	• come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience	• use a range of tools and equipment competently • make a prototype before making a final version	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria		
	PRODUCT	**CULTURAL CAPITAL**			**KEY VOCABULARY**
	Doodlers	*This project develops pupils' cultural capital by engaging them in designing and building a doodler using electrical components, including a motor. Pupils develop key skills in constructing simple circuits, understanding how motors work, and assembling moving parts. They work collaboratively, building teamwork and problem-solving abilities. By exploring various motorised products used in everyday life, pupils gain insight into the role of technology and engineering in shaping modern society and how innovations impact different industries and cultures worldwide.*			*circuit component, configuration, current, develop, DIY, investigate, motor, motorised, problem solve, product analysis, series circuit, stable, target user*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils develop design criteria that clarifies the target user. Pupils carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. Pupils peer evaluate a set of instructions to build a product.				

YEAR 6					
Key Concepts	**Design**	**Make**	**Evaluate**	**Technical Knowledge**	**Cooking & Nutrition**
 **COOKING & NUTRITION: Come Dine with Me** **How can we plan and prepare a delicious, balanced 3-course meal that stays within a budget?** **(6 Lessons)**	• use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs	• know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action	• know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria		• explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish
	PRODUCT	**CULTURAL CAPITAL**		**KEY VOCABULARY**	
	Three course meal	*This project enriches pupils' cultural capital by developing practical cookery skills through the design and preparation of a three-course meal. Pupils learn about nutrition, food hygiene, meal planning, and time management, building life-long skills for healthy, independent living. A visit to the school kitchen gives pupils first-hand experience of a professional food preparation environment, deepening their understanding of real-world cooking processes. The project also explores dishes from different cultures, encouraging appreciation of global food traditions and the social value of sharing meals across communities.*		*balance, bitter, bridge method, complement, cookbook, cross-contamination, enhance, equipment, farm to fork, flavours, ingredients, method, pairing, preparation, recipe, research, salty, sour, storyboard, sweet, umami*	
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils adapt a recipe based on research. **Reflective/Democracy:** Pupils carry out taste testing and score final products.				
 **MECHANISMS: Automata Toys** **How can we design an automata toy that tells a story or creates movement in an interesting and clever way?** **(4 Lessons)**	• use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs	• know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action	• know how to test and evaluate designed products • evaluate product against clear criteria		
	PRODUCT	**CULTURAL CAPITAL**		**KEY VOCABULARY**	
	Automata toy	*This project develops pupils' cultural capital by introducing mechanical systems through the design and construction of an automata toy. Pupils apply D&T skills such as measuring, cutting, assembling cams and linkages, and refining moving parts. The project builds understanding of how mechanisms are used in real-world products and explores the historical and cultural development of toys and automata across time and cultures, fostering curiosity, creativity, and engineering awareness.* ***Significant person - Keith Newstead*** *(1956–2020)* *One of Britain's most celebrated automata artists.* *His intricate wooden creations have been exhibited at the Exploratorium (San Francisco), Eden Project, and the Tokyo Toy Museum*		*accurate, automata, axle, bench hook, cam, cam profile, component, cross-sectional diagram, diagram, dowel, evaluate, exploded diagram, follower, form, frame, function, housing, mechanism, storefront, visual*	
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Loving/Mutual respect:** Pupils notice wider-reaching problems or needs in the community.				
	• use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way	• know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for	• know how to test and evaluate designed products • evaluate product against clear criteria	• use knowledge to improve a made product by strengthening, stiffening or reinforcing	

STRUCTURES: Playgrounds **How can we design playground apparatus that is safe, fun, and suitable for children to play on?** **(4 Lessons)**	• show that culture and society is considered in plans and designs	• explain why a specific tool is best for a specific action			
	PRODUCT	**CULTURAL CAPITAL**		**KEY VOCABULARY**	
	Model playground apparatus	*This project enhances pupils' cultural capital by engaging them in the design and construction of model playground apparatus, developing key D&T skills such as planning, measuring, joining, and evaluating. It encourages creativity, problem-solving, and teamwork while helping students understand the importance of inclusive and safe design. A visit to a local park allows pupils to observe real-life playground structures, consider user needs, and gather inspiration for their own models. By exploring how play equipment is used in different cultures and communities, pupils gain awareness of diversity, public spaces, and the impact of design on everyday life.* ***Significant person - Charles Wicksteed** (1847–1931)* *An engineer and entrepreneur in Kettering.* *Built the UK's first public playground in 1918 and launched Wicksteed Park in 1921.* *Designed robust swings, slides, plank swings, see-saws, roundabouts, and the iconic "jazz swing" and "joy wheel," ensuring equipment was safe, durable, and inclusive*		*apparatus, design criteria, equipment, playground, landscape features, cladding*	
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Positive**				
 **TEXTILES: Waistcoats** **How can we design and make a waistcoat that fits well, looks great, and suits the needs of the person who will wear it?** **(4 Lessons)**	• use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs	• know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action	• know how to test and evaluate designed products • evaluate product against clear criteria		
	PRODUCT	**CULTURAL CAPITAL**		**KEY VOCABULARY**	
	Waistcoat	*This project builds pupils' cultural capital by developing their understanding of textiles through designing and making a waistcoat. It teaches key D&T skills such as measuring, cutting, stitching, and evaluating, while encouraging creativity, independence, and attention to detail. Pupils learn about the cultural and historical significance of clothing and fashion, gaining insight into how garments reflect identity, function, and heritage across different cultures and time periods.* ***Significant person - Vivienne Westwood*** *Vivienne Westwood became well known for designing corsets with a punk influence.* *She even created her own clan, MacAndreas, with its own tartan. The Lochcarron of Scotland recognised the design. This process usually takes 200 years.*		*annotate, decorate, design criteria, fabric, target customer, waistcoat, waterproof*	
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Empowered**				
 **ELECTRICAL**	• use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs	• know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action	• know how to test and evaluate designed products • evaluate product against clear criteria	• use electrical systems correctly and accurately to enhance a given product	

SYSTEMS: Steady Hand Game **How can we design a steady hand game that is challenging, fun, and works reliably?** (4 Lessons)	**PRODUCT**	**CULTURAL CAPITAL**	**KEY VOCABULARY**
	Steady hand game	*This project enhances pupils' cultural capital by engaging them in hands-on design and construction of a steady hand game, developing practical understanding of electrical systems. It promotes creativity, iterative design, and problem-solving—core D&T skills—while encouraging teamwork and resilience. The activity connects to real-world engineering and innovation, helping pupils appreciate how products are designed and used across different times and cultures.* ***Significant person - Bob Scrimshaw*** *Inventor of the Electric Buzz-Wire Game* *In 1953, Yorkshire electrician Bob Scrimshaw developed the earliest electric wire-loop (buzz-wire) game, widely considered the origin of modern steady-hand games.* *His design featured guiding a metal loop along a winding wire without touching it—triggering an electrical buzzer or light upon contact.*	*assemble, battery, battery pack, benefit, bulb, bulb holder, buzzer, circuit, circuit symbol, component, conductor, copper, design, design criteria, evaluation, fine motor skills, fit for purpose, form, function, gross motor skills, insulator, LED, user*
PURPLE / British Values Link	**Unique/Individual liberty:** Pupils are able to make individual choices during the design element of this unit. **Proud**		