



LITTLETON GREEN COMMUNITY SCHOOL

DESIGN AND TECHNOLOGY



“As Design Technology lead, my vision is that through this inspiring and practical subject, we can prepare children for the developing world to become creative problem solvers and the next leads in our technical communities.”

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.

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.

BIG QUESTION



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



EYFS

Early Years

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

- How can a shelter be multi-functional?
- How does a vehicle move?
- How do I prepare food to be able to eat it?



1

Year 2

- What mechanisms do we use in everyday life?
- What fabrics and techniques are used to make products?
- Why do we follow a recipe?



2

Year 3

- How can I strengthen a structure to make it fit for purpose?
- How does a CAM work?
- Why do we have design criteria?



3

Year 4

- How can we lift and move heavy loads?
- Who was William Morris and why was he important?
- How do we keep foods fresh for longer?



4

Year 5

- How has architectural style and technology developed over time?
- What is a pneumatics system?
- What vegetables are in season from May to June?

5

Year 6

- What features does a bridge need?
- Why should we recycle and repurpose old clothes?
- Which is better: processed food or homemade food?

6



WHOLE SCHOOL OVERVIEW OF CONCEPTS

EYFS

Designing	Making	Evaluating	Technical Knowledge	Food Technology
<ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function. 	<ul style="list-style-type: none"> • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Share their creations, explaining the process they have used. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Use a range of small tools, including scissors, paintbrushes and cutlery.

Key Stage 1

Designing	Making	Evaluating	Technical Knowledge	Food Technology
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<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"> • 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. 	<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<i>Make simple structures using a range of materials.</i>	<i>Make simple structures using a range of materials.</i>	<i>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.</i>	<i>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.</i>	<i>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.</i>	<i>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.</i>
Reception	 Building Bridges	 Puppets and Pop ups	 Toys from the past	 Seed Shakers	 Animal Homes	 Boat Builders
PRODUCT	<i>Use a variety of resources to make products inspired by existing products,</i>	<i>Construct simple structures and models using a range of materials.</i>	<i>Explore and create using a wide range of materials and components, including upcycled materials, construction kits, textiles and ingredients.</i>	<i>Adapt and refine their work as they are constructing and making.</i>	<i>Use a variety of resources to make products inspired by existing products.</i>	<i>Construct simple structures and models using a range of materials.</i>

Transition to KS1	<p><i>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.</i></p>
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YEAR 1




Key Concepts	Designing	Making	Evaluating	Technical knowledge	Food technology
 Shade and Shelter How can a shelter be multi-functional?	<ul style="list-style-type: none"> Use own ideas to design something and describe how their own idea works. 	<ul style="list-style-type: none"> Use own ideas to make something. Choose appropriate resources and tools. 	<ul style="list-style-type: none"> Explain what works well and not so well in the model they have made. 	<ul style="list-style-type: none"> Make their own model stronger. 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Build a shelter</i>	<i>Build a shelter at Birches valley</i> <i>Important person- Henry Ford</i>	<i>Compare, different, similar, change, criteria, difficulty, evaluate, improve, strength, weakness, function, permanent, protection, purpose, shelter, structure, temporary, design criteria, drawing, frame, function, idea, label, material, plan, shape, size, construction, entry point, finish, functionality, joining, model, product, roof, safety, tools, wall.</i>		
 Taxi! How does a vehicle move?	<ul style="list-style-type: none"> Use own ideas to design something and describe how their own idea works. Design a product which moves. 	<ul style="list-style-type: none"> Use own ideas to make something. Make a product which moves. Choose appropriate resources and tools. 	<ul style="list-style-type: none"> Describe how something works. Explain what works well and not so well in the model they have made. 	<ul style="list-style-type: none"> Make their own model stronger. 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Create a vehicle</i>	<i>Explore the minibus to find its wheels, axel and chassis</i>	<i>Compare, difference, similarity, change, improve, strength, weakness, axle, chassis, vehicle, wheel, criteria, design, diagram, idea, attach, evaluate, strong, tool, weak, material, purpose, connect, move, roll, product, taxi, transport, vehicle, safety, tool, part, test.</i>		
 Chop, Slice and Mash How do I prepare food to be able to eat it?	<ul style="list-style-type: none"> Explain to someone else how they want to make their product and make a simple plan before making it. 	<ul style="list-style-type: none"> Choose appropriate resources and tools. 	<ul style="list-style-type: none"> Explain what works well and not so well in the food they make. 		<ul style="list-style-type: none"> Cut food safely.
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Invent a sandwich</i>	<i>Cooking session with the kitchen staff making sandwiches</i>	<i>Chop, grate, knife, mash, peel, slice, tear, flavour, fruit, healthy, ingredient, salad, vegetable, animal, dairy product, fish, flower, fruit, leaf, meat, nut, plant, root, seed, source, stem, hygiene, rule, safety, evaluate, improve, success, design criteria, diagram, label.</i>		

YEAR 2

YEAR 2					
Key Concepts	Designing	Making	Evaluating	Technical Knowledge	Food Technology
 <p>Push and Pull What mechanisms do we use in everyday life?</p>	<ul style="list-style-type: none"> • Think of an idea and plan what to do next. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Explain what went well with their work. 	<ul style="list-style-type: none"> • Make a model stronger and more stable. • Use a pulley. 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Modify a product so it moves</i>	<i>Variety of equipment to explore that push and pull to work.</i>	<i>Different, feature, similar, design criteria, evaluation, finish, improvement, product, successful, improve, product, labelled diagram, plan, design, sketch, test, metal, plastic, property, stiff, component, fixed pivot, force, lever, linkage, machine, mechanism</i>		
 <p>Cut, Stitch and Join What fabrics and techniques are used to make products?</p>	<ul style="list-style-type: none"> • Explain why they have chosen specific textiles. 	<ul style="list-style-type: none"> • Choose tools and materials and explain why they have chosen them. • Join materials and components in different ways. 	<ul style="list-style-type: none"> • Explain what went well with their work. 		
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Design and make a sewn accessory</i>	<i>Chance to use a sewing machine in small groups. Important person- Cath Kidson</i>	<i>Bag tag, design, diagram, explore, talk, cut, equipment, glue, join, sewing pattern, stapler, tools, decorative, embellishment, fabric, material, textile, compare, different, landmarks, motif, same, spots, stripes, attractive, cushion, hardwearing, improve, peg bag, pillowcase, product, slippers, tablecloth, tea cosy, tea towel, toiletry bag, Cath Kidson, brand, distinctive, fashion, homeware designer, inspire, vintage, fasten, needle, running stitch, thread, tie, applique, button, printing, sequin.</i>		
 <p>Remarkable Recipes Why do we follow a recipe?</p>	<ul style="list-style-type: none"> • Think of an idea and plan what to do next. 	<ul style="list-style-type: none"> • Measure materials. 	<ul style="list-style-type: none"> • Explain what went well with their work. 		<ul style="list-style-type: none"> • Weigh ingredients to use in a recipe. • Describe the ingredients used when making a dish or cake.
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Generate a recipe</i>	<i>Cooking sessions with the kitchen staff making cupcakes</i>	<i>Change, dislike, evaluate, evaluation, improve, like, success, design criteria, drawing, equipment, ingredient, instruction, label, method, picture, recipe, test, fork, grate, grater, grip, knife, mask, masher, measure, measuring spoon, mix, peel, peeler, property, purpose, slice, spoon, spread, tongs, measure, preparation, animal, diet, fish, flower, fruit, leaf, mixed, nut, plant, pulse, root, seed, shellfish, source, stem, vegan, vegetarian.</i>		

YEAR 3




YEAR 3					
Key Concepts	Designing	Making	Evaluating	Technical Knowledge	Food Technology
 <p>Greenhouse How can I strengthen a structure to make it fit for purpose?</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Explain how to improve a finished model. • Know why a model has, or has not, been successful. 	<ul style="list-style-type: none"> • Know how to strengthen a product by stiffening a given part or reinforcing a part of the structure. • use a simple IT program within the design. 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Select an appropriate structure.</i>	<i>Virtual experience of Eden Project Visit Stafford Park to see the greenhouse Important person- Edouard Andre</i>	<i>Change, design criteria, effective, evaluation, findings, improvement, observation, suitability, diagram, dimension, G clamp, bench hook, butt joint, explore, glueing, hacksaw, hot glue gun, improve, investigate, joining, reinforcing, strengthening, test, triangular corner, biome, compare, conservatory, purpose, structure, style, safety rules, supervision, cloche, cold frame, greenhouse, diagonal strut, frame structure, stability, strength, three-dimensional, hardwearing, transparent, waterproof.</i>		
 <p>Making it Move How does a CAM work?</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • explain how to improve a finished model • know why a model has, or has not, been successful 	<ul style="list-style-type: none"> • know how to strengthen a product by stiffening a given part or reinforce a part of the structure • use a simple IT program within the design 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Evaluate an automation toy.</i>	<i>Exploring toys that move using cam mechanisms</i>	<i>Demonstrate, discussion, evaluate, explain, feedback, finish, improvement, quality, reflect, strength, structure, design criteria, diagram, component, cut, join, material, test, automation toy, axle, cam, elliptical cam, follower, heart cam, hexagonal cam, lever, linkage, machine, mechanical, mechanism, motion, movement, pear cam, rotational, slider, square cam, wheel, snail cam.</i>		
 <p>Cook Well, Eat Well Why do we have design criteria?</p>	<ul style="list-style-type: none"> • design a product and make sure that it looks attractive 	<ul style="list-style-type: none"> • follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task 	<ul style="list-style-type: none"> • explain how to improve their finished meal 		<ul style="list-style-type: none"> •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
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Justify why the product was chosen.</i>	<i>Cooking sessions with the kitchen staff to make pizza</i>	<i>Evaluate, evaluation, improve, success, design, design criteria, diagram, health and safety, plan, bake, barbecue, boil, chop, cook, deseed, dice, fry, grate, grill, hob, ingredient, method, microwave, mix, oven, peel, prepare, roast, skin, slice, slow cooker, steam, Eatwell guide, balanced, calcium, carbohydrate, dairy, diet, fibre, food group, fruit, healthy, nutrient, nutrition, oil, protein, vegetable, vitamin, Food Standards Agency.</i>		

YEAR 4					
Key Concepts	Designing	Making	Evaluating	Technical Knowledge	Food Technology
 <p>Tomb Raiders How can we lift and move heavy loads?</p>	<ul style="list-style-type: none"> • use ideas from other people when designing • produce a plan and explain it • communicate ideas in a range of ways, including by sketches and drawings which are annotated 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved 	<ul style="list-style-type: none"> • links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product • use IT, where appropriate, to add to the quality of the product 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Evaluate how loads are moved relating to history or another subject.</i>	<i>How can you lift ??? using the Co-Joe equipment</i> <i>Important person- Louis Pasteur</i>	<i>Change, evaluate, evaluation, improve, success, annotated sketch, labelled diagram, prototype, compound machine, device, simple machine, characteristic, material, property, rigid, smooth, strength, axle, compound machine, effort, first class, force, fulcrum, inclined plane, lever, load, pulley, screw, second class, simple machine, third class, wedge, wheel.</i>		
 <p>Functional and fancy fabrics Who was William Morris and why was he important?</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • use IT, where appropriate, to add to the quality of the product 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Design and make a fabric sample.</i>	<i>Someone from SUAT to deliver a textiles workshop</i> <i>Visit Wightwick Manor</i> <i>Important person- William Morris</i>	<i>Comfortable, delicate, durable, fabric, flexibility, flexible, lightweight, man-made, material, natural, property, soft, strength, stretchy, strong, synthetic, textile, texture, tough, use, versatile, waterproof, appearance, attractive, design criteria, evaluation, improvement, purpose, review, success, annotate, plan, sketch, home furnishing, home product, Arts and Crafts movement, Morris & Co, William Morris, textile designer, compare, component, embellishment, function, pattern, property, quality, fraying, hem, pinking shears, running stitch, sew, block printing, diamond, pattern structure, trellis.</i>		
 <p>Fresh food, Good food How do we keep foods fresh for longer?</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • know which tools to use for a particular task and show knowledge of handling the tool • measure accurately 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • use IT, where appropriate, to add to the quality of the product 	<ul style="list-style-type: none"> • 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		
	<i>Justify the need for food preservation</i>	<i>Link to science experiment</i>	<i>Evaluation, deconstruct, net, sketch, reconstruct, Tetra Pak, Tupperware, bag, bottle, box, can, carton, compostable, food packaging, jar, recyclable, recycle, reuse, Polystyrene, card, cardboard, cling film, glass, paper, plastic, tin, tin foil, Dr Ruben Rausing, Earl Tupper, Gerald Thomas, Henry D Thatcher, Jacob Perkins, Kruger Brewing Company, Louis Pasteur, Nicholas Appert, Peter Durand, Ralph Wiley, TV dinners, William Cullen, William Kellogg, best before, canning, drying, freezing, pasteurisation, pickling, refrigeration, salting, saran wrap, use by, prototype.</i>		

YEAR 5

Key Concepts	Designing	Making	Evaluating	Technical Knowledge	Food Technology
 <p>Architecture How have architectural style and technology developed over time?</p>	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •use a range of tools and equipment competently •make a prototype before making a final version 	<ul style="list-style-type: none"> •suggest alternative plans; outlining the positive features and draw backs •evaluate appearance and function against original criteria 	<ul style="list-style-type: none"> •uses more complex IT program to help enhance the quality of the product produced- virtual reality program 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Grade architecture over time.</i>	<i>Use computer-aided design program (tinker cad)</i> <i>Important person- Thomas Anson</i>	<i>Computer-aided design, design, product, baroque, classical, Corinthian column, Doric column, Gothic, Industrial, Ionic column, modernist, postmodern, renaissance, ancient Egyptian, architecture, building, caryatid, entablature, frieze, pediment, prehistoric, style, sustainable, temple, column, framework, lintel, post, stability, stiffness, structure, support, appearance, functional, stiffness, Roman builders, prehistoric builders, discuss, evaluation, improve.</i>		
 <p>Moving Mechanisms What is a pneumatics system?</p>	<ul style="list-style-type: none"> •come up with a range of ideas after collecting information from different sources •produce a detailed, step-by-step plan •design a product that requires pulleys or gears or syringes and tubing 	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •suggest alternative plans; outlining the positive features and draw backs •evaluate appearance and function against original criteria 	<ul style="list-style-type: none"> •links scientific knowledge to design by using pulleys or gears 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Evaluate a pneumatic machine that performs a useful function.</i>	<i>Ingenuity/ think tank trip</i>	<i>Adjust, design, analysis, deployment, evaluate, evaluation, feedback, focus group, improvement, iterative process, problem-solve, product, prototype, success, test, heavy lifting equipment, jack, jack hammer, machinery, pneumatic machine, pneumatic system, brace, lifting arm, load, strong, structure, strut, sturdy, version, actuator, air, air pressure, compress, compressor, force, gas, hinge, lever, movement, piston, plunger, pneumatics, power, reservoir, syringe, value.</i>		
 <p>Eat the seasons What vegetables are in season from April to June?</p>	<ul style="list-style-type: none"> •come up with a range of ideas after collecting information from different sources •produce a detailed, step-by-step plan 	<ul style="list-style-type: none"> •use a range of tools and equipment competently 	<ul style="list-style-type: none"> •evaluate appearance and function against original criteria 		<ul style="list-style-type: none"> •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		
	<i>Design a healthy meal.</i>	<i>Cooking sessions with the kitchen staff</i>	<i>Blend, boil, brown, chop, cooked, dice, food hygiene, food preparation, health and safety, mash, peel, puree, raw, sauté, simmer, steam, carbohydrate, fat, fibre, fresh, fruit, healthy, kilocalorie, kilojoule, mineral, nutrient, nutritional value, protein, salt, saturated fat, seasonal food, soup, sugar, vegetable, vitamin, produce, seasonal vegetable, seasonality.</i>		

YEAR 6

Key Concepts	Designing	Making	Evaluating	Technical Knowledge	Food Technology
 <p>Engineer What features does a bridge need?</p>	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •know how to test and evaluate designed products •evaluate product against clear criteria 	<ul style="list-style-type: none"> •use electrical systems correctly and accurately to enhance a given product •use knowledge to improve a made product by strengthening, stiffening or reinforcing 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Create a bridge prototype.</i>	<i>Visit local bridges- Ironbridge/Telford</i> <i>Important person- Thomas Telford and Isambard Kingdom Brunell</i>	<i>Analysis, evaluation, feedback, improve, problem, results, arch bridge, beam bridge, compare, material, span, support, suspension bridge, truss bridge, concertina, investigation, layers, shape, strength, strengthening, stability, annotated diagram, design, design criteria, exploded diagram, modelling, prototype, test, bridge, force, structure, triangle, Isambard Kingdom Burnell, Sir Benjamin Baker, Sir John Fowler, Thomas Telford, engineer.</i>		
 <p>Make do and mend Why should we recycle and repurpose old clothes?</p>	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •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 	<ul style="list-style-type: none"> •know how to test and evaluate designed products •evaluate product against clear criteria 	<ul style="list-style-type: none"> •know which IT product would further enhance a specific product 	
	PRODUCT	CULTURAL CAPITAL	KEY VOCABULARY		
	<i>Solve how a product can be made for a specific purpose- sunglasses for Paris trip.</i>		<i>Adapt, change, repurpose, compare, evaluate, blouse, clothing, dress, fabric, fashion, garment, handmade, hat, jacket, jeans, recycle, repair, shirt, skirt, sock, trousers, Velcro, blanket stitch, button, decorative, embroidery, fabric property, fastening, function, investigate, label, needle, observation, press stud, ribbon, running stitch, seam, thread, tie, toggle, whip stitch, zip, recycled, pin, repair, stitch, tack, sew.</i>		
 <p>Food for life</p>	<ul style="list-style-type: none"> •use market research to inform plans and ideas. •show that culture and society is considered in plans and designs 	<ul style="list-style-type: none"> •know how to use any tool correctly and safely •know what each tool is used for 	<ul style="list-style-type: none"> •explain how products should be stored and give reasons 		<ul style="list-style-type: none"> •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		

Which is better: processed food or homemade food?	<i>Plan and make a healthy menu.</i>	<i>Cooking sessions with the kitchen staff</i>	<i>Evaluate, evaluation, feedback, modification, reflect, advantage, compare, comparison, disadvantage, ingredient, nutritional value, use by date, convenience food, minimally processed, packaging, ultra-processed, unprocessed, dough, fry, halve, health and safety, heat, hygiene, prove, recipe, reheat, simmer, slow cook, store, yeast, Eatwell guide, balanced, carbohydrate, organic, protein, animal feed additive, farm, fertiliser, labour intensive, pesticide, whole food.</i>
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