

Design Technology EYFS		
Nursery	Personal, Social and Emotional Development	*Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.
	Physical Development	*Use large muscle movements to wave flags and streamers, paint and make marks. *Choose the right resources to carry out their own plan *Use one handed tools and equipment, for example, making snips in paper with scissors.
	Understanding the World	*Explore how things work.
	Expressive Arts and Design Curiosity Cart	*Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. *Explore different materials freely, to develop their ideas about how to use them and what to make. *Develop their own ideas and then decide which materials to use to express them. *Create closed shapes with continuous lines and begin to use these shapes to represent objects.
Reception	Physical Development	*Progress towards a more fluent style of moving, with developing control and grace. *Develop their small motor skills so that they can use a range of tools competently, safely and confidently. *Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
	Expressive Arts and Design	*Explore, use and refine a variety of artistic effects to express their ideas and feelings. *Return to and build on their previous learning, refining ideas and developing their ability to represent them. *Create collaboratively, sharing ideas, resources and skills.
ELG	Physical Development - Fine Motor Skills	*Use a range of small tools, including scissors, paintbrushes and cutlery.
	Expressive Arts and Design - 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.

Year	Term	Theme	Skills	Technical Knowledge	Food Technology
1	Autumn 1 <i>Art half term</i>	Community: Our Families			Visit to local market; exploring food through sensory experiences. Where food comes from. To cut ingredients safely To prepare simple dishes - safely and hygienically - without using a heat source To know that hygiene is important when preparing food local community
	Autumn 2 <i>Art half term</i>	Once Upon a Time		Hour of Code computing	
	Spring 1	Toys: Then and Now <i>textiles</i>	Design use own ideas to design a hand puppet make a simple plan and template before making Make choose appropriate resources and tools (joining textiles) To join fabrics using a running stitch To cut and join materials to finish my design (ribbons, buttons, wool	To know about the origins of some natural materials (eg. wool, cotton, felt) To understand why templates are useful	

			etc using glue) Learning different methods to attach two pieces of material together; stapling, gluing, safety pins, sewing Evaluate explore and evaluate a range of existing puppets explain what works well and what could be improved in the puppets they have made		
	Spring 2 Art half term	Our Garden			Edible Playground Seasonal fruit and vegetables that grow within our climate. Understand where food comes from. gardens and playgrounds
	Summer 1	On the Farm mechanisms	Design use own ideas to design a 'moving picture' Make choose appropriate resources and tools (mechanisms) make a product which moves To join using a hole bradawl & split pin Evaluate explain what works well and what could be improved in the moving picture they have made	To know which order I need to work in To understand that different mechanisms produce different types of movement	that all food comes from plants or animals
	Summer 2 Art half term	A Seaside Adventure			

Design and Technology Year 2					
Year	Term	Theme	Skills	Technical Knowledge	Food Technology
2	Autumn 1 Art half term	Community: People Who Help Us			
	Autumn 2	The Fire of London mechanisms	Design design a vehicle which moves industry make a simple plan before making Make choose appropriate resources and tools (joining chassis, dowel and wheels) and explain why they have chosen them To attach wheels to a chassis using a simple axle Evaluate explore and evaluate a range of moving vehicles explain what works well and what could be improved in the vehicles they have	To know the technical vocabulary relevant to the project (wheel, axle, axle holder, chassis, body) Hour of Code computing To know that a healthy diet is made up from a variety of different food and drink	weigh ingredients to use in a recipe describe the ingredients used when making bread to follow a recipe

			made		
	Spring 1 Art half term	Who lives in the Secret Garden?			Edible Playground Seasonal fruit and vegetables that grow within our climate. Understand where food comes from. gardens and playgrounds
	Spring 2	Exploring the United Kingdom structures	Design think of an idea for a new structure within canary wharf wider environment/ architecture make a simple plan before making a model Make choose appropriate resources, tools and construction materials, and explain why they have chosen them join materials and components in different ways measure materials to use in a structure To explore how to make structures stronger and more stable eg. tabs, slots To join materials using glue and/or tape Evaluate explore existing architecture explain what works well and what could be improved in the structures they have made	make a structure stronger and more stable (straws) Learn about the work of London architects Christopher Wren (St Pauls - Fire of London link) Cesar Pelli (Canary Wharf) Zaha Hadid (Aquatics Centre) Know that an architect is someone who designs buildings. To know that the job of a designer is to design a well-made product.	
	Summer 1 Art half term	The Seven Continents of the World			
	Summer 2 Art	Roald Dahl			

Design and Technology Year 3					
Year	Term	Theme	Skills	Technical Knowledge	Food Technology
3	Autumn 1	Community: Festival of Britain structures	Design design something that could improve our school playground Make make a model of your design Evaluate Investigate current school environment. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures while building models. Measure, mark out and cut and shape materials and components with some accuracy. To use the language, structure, base, buttress, stable, materials	
	Autumn 2	Stone Age to		Hour of Code	

	Art half term	Iron Age		computing	
	Spring 1 Art half term	The Human Body	To group familiar food products eg. fruit and vegetables To cut ingredients safely To prepare simple dishes - safely and hygienically - without using a heat source	To group foods into the five groups in the Eatwell Plate To know that hygiene is important when preparing food	know how to be both hygienic and safe when using food knife skills - making a fruit salad
	Spring 2 Art half term	Ancient Civilisations			
	Summer 1	Mountains of the World			Edible Playground understand seasonality and know where and how a variety of ingredients are grown know when food is ready for harvesting
	Summer 2	Who were the Romans? <i>textiles</i>	Design design a Roman inspired money purse that can contain money and tie up culture choose materials for both suitability and appearance prove that a design meets a set criteria Make follow a step-by-step plan choosing the right equipment and materials work accurately to measure, make cuts and make holes (joining textiles) To pin fabric pieces together before sewing To thread a needle and make a knot To join fabrics using overcast stitch To refine my techniques as I progress To make and join loops To sew on a button To say what I would improve on next time Evaluate investigate and explore a range of existing purses explain how to improve the finished purse know why a purse has, or has not, been successful	developing textile techniques - threading to create a tie closure on a purse explore fastenings; buttons, Velcro, tie etc.	

Design and Technology Year 4

Year	Term	Theme	Skills	Technical Knowledge	Food Technology
4	Autumn 1	Community: The Tower of London <i>structures</i> <i>electrical</i>	Working with professional architects Design design architecture that is fit for purpose, for particular	To know about the job of an architect and engineer To know about strong shapes in structures	

		<i>circuit</i>	<p>people, and explain it wider environment/ architecture use ideas from architects when designing</p> <p>develop designs using annotated cross-sectional and exploded diagrams</p> <p>include an electrical circuit (light) make a simple plan</p> <p>Make</p> <p>know which material is likely to give the best outcome</p> <p>measure accurately</p> <p>include an electrical circuit (light) within architectural model</p> <p>use electrical systems to enhance the quality of the product</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Link to science knowledge - electricity - through lighting up architectural model.</p> <p>Evaluate</p> <p>evaluate architecture for both their purpose and appearance</p>	<p>To know the technical vocabulary relevant to the project (series circuit, input/output, connection, battery, motor, switch, bulb, insulator, control, system)</p> <p>To know the architect must consider how a structure will be used and by whom.</p> <p>Architectural language – roof, window, door, arch, features, function, access, purpose, scale.</p>	
Autumn 2 Art half term	Rainforests			Hour of Code computing	Edible Playground understand seasonality and know where and how a variety of ingredients are grown. know how to be both hygienic and safe when using food. - taste testing different foods - five basic tastes - sweet, salty, bitter, sour, umami
Spring 1 Art half term	Anglo Saxons and Scots	<p>To explore the process of weaving (using paper strips)</p> <p>To weave on a simple loom</p> <p>To choose from a range of materials for effect</p>		<p>To know that weaving is used to create structurally strong products (in natural and man-made world)</p> <p>To know the technical vocabulary relevant to the project (yarn, weft, warp, loom, fabric, textile)</p>	
Spring 2 Art h/t	Who were the Vikings?				
Summer 1	Explorers	<p>To cut, chop and grate food accurately and safely</p> <p>To measure and weigh ingredients appropriately</p> <p>To follow a recipe</p>		To know that a healthy diet is made up from a variety of different food and drink	know how to be both hygienic and safe when using food preparing ingredients and cooking a soup
Summer 2	Extreme Earth mechanisms	Design use own ideas to design a greetings card enterprise make a simple plan before making		To know the technical vocabulary relevant to the project (fixed/loose pivot, lever/linkage, input/output,	

			<p>To make annotated and labelled sketches</p> <p>To develop my ideas and skills through prototypes</p> <p>Make make a product which uses mechanical components of levers and linkages</p> <p>Evaluate Investigate and evaluate a range of existing pop up cards and techniques evaluate and suggest improvements for their pop up card</p>	<p>reciprocating/ oscillating/ linear/rotational motion)</p> <p>To know what a prototype is</p> <p>To understand the difference between fixed and loose pivots</p>	
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Design and Technology Year 5						
Year	Term	Theme	Skills	Technical Knowledge	Food Technology	
5	Autumn 1 <i>Art half term</i>	Community: Festival of Britain				Edible Playground understand seasonality and know where and how a variety of ingredients are grown know which season various foods are available for harvesting
	Autumn 2 <i>Art half term</i>	The Mighty Egyptians		<p>Hour of Code computing</p> <p>gears and pulleys levers, pulleys, gears</p>	Making Bread lesson <i>According to history, the earliest bread was made in or around 8000 BC in the Middle East, specifically Egypt.</i>	
	Spring 1	ECO Warriors <i>Computer aided design</i>	<p>Design come up with a range of ideas for packaging wildflower seeds after collecting information from different sources enterprise/ wider environment explain how a product will appeal to a specific audience</p> <p>Make make a prototype before making a final version</p> <p>Evaluate evaluate appearance and function against original criteria</p>	To know how to use TinkerCAD within the design process		
	Spring 2 <i>Art half term</i>	Who were the Greeks?				
	Summer 1 <i>Art half term</i>	Space Explorers <i>Computer programming</i>	<p>Design/ Make/ Evaluate using Crumble - linked to computing Apply their understanding of computing to program, monitor and control their products. To generate, develop, model & communicate ideas through discussion & annotated sketches</p>	<p>To know the technical vocabulary relevant to the project (control, program, system, input device/output device)</p> <p>To know how key events/individuals in D&T have helped shape the world (eg - creation of the microchip; Bill Gates)</p>		

			To competently select & accurately assemble materials and securely connect components to produce a functional product		
	Summer 2	The Industrial Revolution <i>mechanisms</i>	<p>Working with a professional designer of automata</p> <p>Design use own ideas to design a toy that uses a cam mechanism <i>leisure</i> To make a labelled design drawing with annotations</p> <p>Make use a range of tools and equipment competently make a product that relies on a cam mechanism To construct a cam mechanism (camshaft and followers) To choose the best way to join materials to maximise the effect of movement</p> <p>Evaluate suggest alternative plans; outlining the positive features and the draw backs</p>	<p>To link scientific knowledge to design (cam mechanisms)</p> <p>To understand that cam mechanisms can be used to make things move in different ways To know the technical vocabulary relevant to the project (cam, follower, camshaft, crank, rotary motion, automaton)</p>	

Year 6

Design and Technology Year 6					
Year	Term	Theme	Skills	Technical Knowledge	Food Technology
6	Autumn 1	Community: Political Poplar			
	Autumn 2 <i>Art half term</i>	Early Islamic Civilisation		Hour of Code apply their understanding of computing to program, monitor and control an app	Ginger Biscuits (Christmas)
	Spring 1	WWII	<p>Design follow and refine original plans for a soft toy <i>leisure/ culture</i></p> <p>Make know which tool to use for a specific practical task (cutting, shaping, joining and finishing) select from and use a wider range of textiles according to their functional properties and aesthetic qualities use knowledge to improve a made product by strengthening, stiffening or reinforcing developing textile techniques - variety of stitching and embellishment designs</p>	<p>To know some key inventions and how they changed our lives (eg. Velcro, zip, snap fastener)</p> <p>To understand the need of pattern pieces To understand seam allowance To understand prototyping as part of the design process To know some key events/individuals in DT that have helped shape the world</p>	

			Evaluate evaluate soft toy against their own design criteria and consider the views of others to improve their work		
	Spring 2 Art h/t	Rivers			
	Summer term	Refugees and Immigration	Food Technology - celebrating culture and seasonality using Edible Playground as resource Design show that culture and society is considered in plans and designs for a celebration through food culture/home Make know how to make sweet and savoury dishes To know how to correctly store and handle ingredients To combine ingredients appropriately eg. beating To measure ingredients to the nearest gram and millilitre To control the temperature of an oven Evaluate explain how products should be stored and give reasons evaluate product against clear criteria	Edible Playground understand seasonality and know where and how a variety of ingredients are grown be both hygienic and safe in the kitchen know how to prepare a meal by collecting the ingredients in the first place understand the difference between a savoury and sweet dish explain how food ingredients should be stored and give reasons	

Vocabulary

Throughout each key stage, the following areas of Design and Technology and associated vocabulary are taught;

structures, mechanisms, cooking and nutrition, textile, electrical systems, computer aided design

ensuring all D&T projects address the six principles;

user, purpose, functionality, design decisions, innovation and authenticity

This knowledge is built upon each year.