



# Expressive Arts and Design

Nursery	Develop Matters PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>Who am I?</b>					
<b>Autumn Term 2</b>					
<b>Who is in my community?</b>	Creating with Materials: Begin to develop complex stories using small world equipment like animal sets, dolls and dolls houses etc	Knowing that we can use small world resources to tell real or imagined stories	Storytelling, speaking and listening, imagining, representing	create, imagine, story	imagine, imagination, real, story, doll, house, animal,
<b>Spring Term 1</b>					
<b>How do we get to the South Pole?</b>	Creating with Materials: Take part in simple pretend play, using an object to represent something else even though they are not similar.	Knowing that we can use any object of our choice to represent something else	imagining, representing, playing with what is available	pretend, create, imagine	boat, map, telescope, sea, provisions, journey, rucksack, provisions, compass, phone
	Creating with Materials: Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.				
<b>Spring Term 2</b>					
<b>What can we grow?</b>	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	create, explore, represent, try	material, fabric, weatherproof, purpose, strong, cut, stick, fix, try
	Creating with Materials: Develop their own ideas and then decide which materials to use to express them.	Different materials work for different purposes. I can choose what I think is best suited to what I need.	Playing, trying out, exploring, reevaluating, cutting, sticking	create, explore, represent, try	
<b>Summer Term 1</b>					

<b>What is under the sea?</b>	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	create, explore, represent, try	cardboard, tape, stick, saw, nail, hammer, glue, ribbon, names of sea creatures and creature body parts
	Creating with Materials: Develop their own ideas and then decide which materials to use to express them.	Different materials work for different purposes. I can choose what I think is best suited to what I need.	Playing, trying out, exploring, reevaluating, cutting, sticking	create, explore, represent, try	
<b>Summer Term 2</b>					
<b>Where will adventure take us?</b>	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Creating with Materials: Explore different materials freely, in order to develop their ideas about how to use them and what to make.	create, explore, represent, try	steering wheel, sail, boat, float, wheels, car, train, plane, wings, fly, travel, fast, slow, carry, rough, smooth, touch
	Creating with Materials: Develop their own ideas and then decide which materials to use to express them.	Different materials work for different purposes. I can choose what I think is best suited to what I need.	Playing, trying out, exploring, reevaluating, cutting, sticking		
	Creating with Materials: Join different materials and explore different textures.	Different materials work for different purposes. I can choose what I think is best suited to what I need.	Playing, trying out, exploring, reevaluating, cutting, sticking		



## Expressive Arts and Design

Reception	Development Matters PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>What makes me happy and healthy?</b>	Creating with materials	Picture represent events and people.	Create simple representation of events, people and objects.	Colour, imaginative.	materials, plan, create
<b>Autumn Term 2</b>					
<b>Where in the world do animals live?</b>	Creating with materials.	Know materials can be used in different ways.	Use various techniques and materials to create desired effects.	Creativity, design, functionality.	Materials, Design
<b>Spring Term 1</b>					
<b>What makes a good toy?</b>	Explore, use and refine a variety of artistic effects to express their ideas and feelings.	Knowing how to use and manipulate tools and materials to achieve a desired effect.	Being able to plan, create and evaluate a chosen project.	Design	Materials, design, plan, evaluate
	Explore, use and refine a variety of artistic effects to express their ideas and feelings.	Knowing that our own experiences can be used in our creations.	Using our own experiences to influence our creations.	Technology	
				Create	
				Evaluate	
<b>Spring Term 2</b>					
<b>What happens on the farm?</b>	Create collaboratively, sharing ideas, resources and skills.	Know that everybody has their own ideas and that they are all valuable.	Using appropriate language to facilitate collaborative language.	Design	Evaluate, safety, collaboration
		Understand the importance of sharing		Technology	
				Evaluate	

<b>What happens on the farm?</b>				Safety	
				Function	
				Imagination	
				Collaboration	
<b>Summer Term 1</b>					
<b>How can I be a superhero?</b>	Create collaboratively, sharing ideas, resources and skills.	Know that the sharing of ideas is important when we work together.	Be able to share ideas and work collaboratively to produce a piece of art.	Design, technology, evaluate, safety, function, imagination, listen, contribute compromise, reflect, creativity.	Function, contribute, compromise, reflect
<b>Summer Term 2</b>					
<b>What goes up, up and away?</b>	Explore, use and refine a variety of artistic effects to express their ideas and feelings	Know that they can use a variety of tools to create different effects	Use a range of tools appropriately.	Design, technology, evaluate, saftey, function	technology, safety, function



# Design & Technology

Year 1	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>What do I know about the UK and where I live in Didsbury?</b>	Design purposeful, functional, appealing products for themselves and other users based on design criteria	Understand the process – design, make and evaluate	Design and construct a strong bridge using materials	Design	material, strong, weak, strengthen, stronger, strongest, weaker, weakest, investigate, evaluate, properties, plastic, glass, paper, wood, stone, build, construct, flexible, rigid.
	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Understand that their own ideas can be represented by different creations	Carry out an investigation to test material strength (predict, record, conclude and evaluate)	Evaluate	
	Select from and use a wide range of materials and components according to their characteristics	Understand the design criteria, e.g. what does a "strong house" mean? Given this, explore which materials would work best and choose materials based on their properties	Continue to develop fine motor skills including scissor skills to cut materials	Functionality	
	Evaluate their ideas and products against design criteria		Enhance drawing techniques and pencil skills through the planning process	Building	
			Label drawings correctly Evaluate their model	Making appropriate choices	
<b>Autumn Term 2</b>					
<b>How different was my town in 1900?</b>	Design purposeful, functional, appealing products for themselves and other users based on design criteria	Understand the process – design, make and evaluate	Continue to develop fine motor skills including scissor skills to cut materials	Design	material, push, pull, flexible, function, stronger, tools, equipment, method, instruction.
	Select from and use a wide range of materials, and components, including construction materials, textiles and ingredients, according to their characteristics	Understand that their own ideas can be represented through different creations	Make a toy based on a design criteria	Evaluate	
	Select from and use a range of tools and equipment to perform practical tasks	Know how to make structures stronger	Evaluate their model and refer back to the design criteria	Functionality	

<b>How different was my grandparents' childhood to mine?</b>	Build structures, exploring how they can be made stronger, stiffer and more stable	Know what materials will suit their design brief	Apply scientific knowledge appropriately in order to choose the most functional material for a toy	Create	
	Evaluate their ideas and products against design criteria	Understand why some toys are pushed and some are pulled		Making appropriate choices	
		Understand why it is important to evaluate their toys and suggest improvements		Materials	
<b>Spring Term 1</b>					
<b>Why are humans not like tigers? Animals including humans</b>	Use the basic principles of a healthy and varied diet to prepare dishes.	To know where food comes from	To carefully select ingredients based on scientific knowledge of the senses and knowledge of a healthy diet	Design Evaluate Create	healthy, unhealthy, balanced, unbalanced, hygiene, design, cut, chop, peel, spread, recipe, health, body, ingredients, equipment, method, taste, senses, prepare, varied, variety
	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	To know what a varied diet means and that we we should have one to stay healthy	To prepare ingredients with adult support -chop, spread	Making appropriate material /ingredient choices	
	Generate, develop, model and communicate their ideas.	To know what foods are healthy and which are not	Continue to develop fine motor skills including scissor skills to cut materials	Materials	
	Select from and use a range of tools and equipment to perform practical tasks	To know basic food hygiene principles - washing hands before cooking	To use knowledge of animals to design make and evaluate a model of an animal	Ingredient Diet health Recipe	
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	To know we follow the process - design, make and evaluate			
<b>Spring Term 2</b>					
<b>How can I make a</b>	Design purposeful, functional, appealing products for themselves and other users based on design criteria	Understand that following instructions carefully is important for the end result	Follow instructions	Design	sew, sewing, fashion, design, purpose, fashion statement, thread, needle, eye of a needle, fabric, material, loop, cut, in and out, up and down, cutting, shaping, pieces,
	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Understand that following instructions carefully is important for the end result	Know how to sew	Evaluate	
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Understand that their own ideas can be represented through different creations	Design (draw and label accurately) their own fashion piece	Functionality	

<b>How can I make a fashionable logo about where I am from?</b>		Understand the design criteria, e.g. what does a "fashion statement" mean? Given this, explore which materials would work best and choose materials based on their properties	Enhance drawing techniques and pencil skills through the planning process	Create	
		Make/add to an item of clothing using sewing techniques	Sewing		
		Continue to develop fine motor skills including scissor skills to cut materials	Making appropriate choices		
<b>Summer Term 1</b>					
<b>Why are some places in the world always hot and others are always cold?</b>	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Understand that following instructions carefully is important for the end result	Follow instructions	Design Evaluate Functionality Create Diorama Making appropriate choices	diorama, technique, creation, represent, evaluate, improve, function, imagine, explore, investigate, materials, cut, stick, idea
	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Understand the process – design, make and evaluate	Design (draw and label accurately) their group diorama.		
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Understand that their own ideas can be represented through different creations	Enhance drawing techniques and pencil skills through the planning process		
	Evaluate their ideas and products against design criteria	To know that an environment can be creatively represented in a diorama.	Continue to develop fine motor skills including scissor skills to cut materials		
		Evaluate their model and refer back to the design criteria.			
		Apply scientific knowledge appropriately in order to choose the most functional material for a hat.			
		Apply geographical knowledge appropriately in order to choose materials and colours that best represent a specific habitat.			
<b>Summer Term 2</b>					

<b>Who were and are the famous Manchester people?</b>	Use the basic principles of a healthy and varied diet to prepare dishes.	To know where food comes from	To carefully select ingredients based on scientific knowledge of the senses and knowledge of a healthy diet	Design Evaluate Create Making appropriate material /ingredient choices Materials Ingredients Diet Health Recipe	food, farm, healthy, unhealthy, varied, diet, hygiene, design, make, evaluate, process, health, recipe, ingredient, names of various foods, prepare, chop, peel, grate, slice, spread, supermarket, growing, environment, waste, recycling
	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	To know basic food hygiene principles - washing hands before cooking	To prepare ingredients with adult support -chop, spread		
	Select from and use a range of tools and equipment to perform practical tasks	To know we follow the process - design, make and evaluate	To plan a creative dish linked to our topic about explorers		
	Select from and use a wide range ingredients		Continue to develop fine motor skills including scissor skills to cut materials		



# Design & Technology

Year 2	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>Would a Dinosaur make a good pet?</b>	Design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Explore different ways to communicate ideas e.g. talking, drawing and by making mock-ups	Design purposeful products · Choose the best tool for a task e.g. sellotape, scissors or glue for joining a variety of materials · Evaluate products they have made	Plan	Bug Hotel Plan Evaluate Design Habitat Microhabitat
	select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Know the characteristics of materials and why they might be good for a certain purpose e.g. plastic for waterproof shelter. This links with our science curriculum		Annotate	
	select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics			Design	
	explore and evaluate a range of existing products			Cross-sectional drawing	
	evaluate their ideas and products against design criteria			Plans	
	Technical knowledge			Template	
	build structures, exploring how they can be made stronger, stiffer and more stable			Label	
	explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.			Product	
				Components	
<b>Autumn Term 2</b>					
	Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.	Explore different ways to communicate ideas e.g. talking, drawing and by making mock-ups	Design a simple replica of a scene	Design	Tools Materials Products Mock-Ups Sketches Drawing Design Make Evaluate Scene

<b>What lessons have we learnt from the Great Fire of London?</b>	They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.	<ul style="list-style-type: none"> <li>· Know the characteristics of materials and why they might be good for a certain purpose and understand how materials may support natural habitats e.g. mini-beasts like warm damp, environments under logs. This links with our science curriculum.</li> </ul>	<ul style="list-style-type: none"> <li>· Choose the best tool for a task e.g. sellotape, scissors or glue for joining a variety of materials</li> </ul>	make
	Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.		Evaluate their final product and compare in Kagan groups	data
	Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world.			evaluate
	High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation			research
				functionality
				innovation
<b>Spring Term 1</b>				
<b>What are the main differences between my life and a small village in Africa?</b>	Using creativity and imagination, pupils design and make products within a variety of contexts, considering their own and others' wants needs and values.	Name the main food groups and talk about the importance of a healthy diet (link to science) .	<ul style="list-style-type: none"> <li>· Design purposeful products · Choose the best tool for a task eg mixing, stirring, cutting</li> </ul>	Stir
	Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. All pupils will understand and apply the principles of nutrition and learn how to cook.	<ul style="list-style-type: none"> <li>· Understand where food comes from.</li> </ul>	Select and use a range of ingredients.	Chop
			<ul style="list-style-type: none"> <li>· Evaluate products they have made</li> </ul>	Cut
				Slice
				Grate
				Mix
				Combine
				Knead
				Proof
<b>Spring Term 2</b>				
	design purposeful, functional, appealing products for themselves and other users based on design criteria	know what the inside of a hand/ robotic hand looks like	design purposeful, functional, appealing products for themselves and other users based on design criteria	
				Label Product Components Sketches Plans Designs Structures Materials

<b>Which internationally famous person did something incredible in the past?</b>	-generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	know how to join materials using different joining techniques	generate, develop, model and communicate their ideas through talking, drawing, templates.	Design
	- select from and use a range of tools and equipment to perform practical tasks	know how to make a model move	select from and use a range of tools and equipment to perform practical tasks	Make
	- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	build and apply a repertoire of knowledge, understanding and skills in order to make a robotic hand	select from and use a wide range of materials and components	Data
	- explore and evaluate a range of existing products		evaluate their ideas and products against design criteria	Evaluate
	- evaluate their ideas and products against design criteria		build structures, exploring how they can be made stronger, stiffer and more stable	Functionality
	- build structures, exploring how they can be made stronger, stiffer and more stable			Innovation
	- explore and use mechanisms in their products.			
<b>Summer Term 1</b>				
<b>How different are the environments close to our school?</b>	Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.	Explore different ways to communicate ideas e.g. talking, drawing and by making mock-ups	Design purposeful products	Design
	They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.	· Know the characteristics of materials and why they might be good for a certain purpose and understand how materials may support natural habitats e.g. mini-beasts like warm damp, environments under logs. This links with our science curriculum.	· Choose the best tool for a task e.g. sellotape, scissors or glue for joining a variety of materials	make
	Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.		· Talk about a range of products and how they might be improved	data
	Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world.		· Evaluate products they have made	evaluate
	High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation			research
				functionality
				innovation

<b>Summer Term 2</b>					
<b>How can I make a moving Victorian vehicle?</b>	Using creativity and imagination, pupils design and make products within a variety of contexts, considering their own and others' wants needs and values. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.	Understand that different mechanisms produce different types of movement.	design purposeful, functional, appealing products for themselves and other users based on design criteria	Mechanisms	Mechanism, lever, slider, slot, guide or bridge
		Know how to make freestanding structures stronger stiffer and more stable	generate, develop, model and communicate their ideas through talking, drawing, templates.		
		Understand and use basic principles of a healthy and varied diet to prepare a balanced picnic.	select from and use a range of tools and equipment to perform practical tasks		
			select from and use a wide range of materials and components		
			evaluate their ideas and products against design criteria		
			build structures, exploring how they can be made stronger, stiffer and more stable		
			build structures, exploring how they can be made stronger, stiffer and more stable		



# Design & Technology

Year 3	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>What causes earthquakes, volcanoes and mountains?</b>	<p><b>Design</b> generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	Know how to draw annotated designs with labels that detail their material choices and suitability of the given materials	Be able to clearly explain their annotated design and give reasons for specific features included.	Design	Plan Annotate
<b>Autumn Term 2</b>					
<b>How can I create a large structure to represent Manchester?</b>	<p><b>Design</b> 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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p><b>Make</b> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p><b>Evaluate</b> investigate and analyse a range of existing products</p> <p>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>	<p><b>Design</b> Learn about architects who have developed ground breaking products.</p> <p>A design must reflect the specification, purpose and audience.</p> <p>Know how to draw annotated designs with labels that detail their material choices and suitability of the given materials</p> <p><b>Make</b> Know that triangles are the strongest shape</p> <p>Know how to make a jinx frame.</p> <p>Select the most appropriate tools and techniques for building a structure</p>	<p><b>Design</b> Research independently and generate some ideas before thinking about resources.</p> <p>Order the main stages of making a product, continually referring to purpose and establish criteria for a successful product.</p> <p>Design a product using CAD and make sure that it meets the design criteria including looking attractive (if needed)</p> <p>When planning, explain their choices of materials and components, including function.</p> <p>Develop their own ideas through drawings, making templates or mock ups of their initial ideas using ICT (if needed).</p> <p><b>Make</b> Start to work safely and accurately with a range of simple tools.</p>	Structure  Shell structure  Design  Make  Evaluate  Functionality	Plan Annotate Sketches Aesthetic Modify Alter Stiffen Strengthen Reinforce Function Joint

	understand how key events and individuals in design and technology have helped shape the world	<b>Evaluate</b> Know why a model has or has not been successful	Start to think about their ideas as they make their product and be willing to change things if they help them to improve their work.	Purpose
	<b>Technical Knowledge</b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Evaluate the key designs of individuals in DT to understand who has helped to shape the world.	Start to measure, tape or pin, cut and join materials with some accuracy.	Audience
		<b>Technical Knowledge</b> Know how to strengthen a product by stiffening a given part or reinforce a part of the structure.	<b>Evaluate</b> Explain how to improve a finished model	Computer Aided Design (CAD)
			Evaluate their product against their original design criteria (e.g. how well it meets its intended purpose).	Measure
			<b>Technical Knowledge</b> Use a simple IT program within the design	

### Spring Term 1

<b>How did Britain change between the Stone age and Iron age?</b>	Investigate and analyse a range of products.	Know the difference between prehistoric and modern technology.	To analyse technology from different prehistoric periods and modern times.	Purpose	Technology Construction
	Understand how key events and individuals in design and technology have helped shape the world.	Recall the technological advancements from the Stone Age, Iron Age and Bronze Age.		Technical knowledge	
		Understand how prehistoric technology helped to shape the world		Functionality	

### Spring Term 2

<b>Why do we love holidays in the Mediterranean?</b>	understand and apply the principles of a healthy and varied diet	Know when food is ready for harvesting	Describe how food ingredients come together	Nutrition	Ingredients Recipe Chopping Slicing Mixing Baking Cooking Combine Flavour
	prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of heat source.	Weigh out ingredients and follow a given recipe to create a dish	Health	
			Demonstrate hygienic food preparation	Safety	
			Begin to understand how to use a range of techniques, such as peeling, chopping, slicing, gracing, mixing, spreading, kneading and baking.		

Summer Term 1					
<b>Why was Ancient Egypt's civilization ahead of its time?</b>	<b>Design</b> 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	<b>Design</b> Consider the purpose and audience of the Egyptian mechanism	<b>Design</b> Draw annotated designs with labels that detail their material choices and suitability of the given materials	Mechanisms	Plan Annotate Product Model Stable Strengthen Pulley Joint
	generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Select the most appropriate tools and techniques for a given task	Follow a step-by-step plan, choosing the right equipment and materials	Design	
	<b>Make</b> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	<b>Make</b> Start to understand that mechanical systems (such as levers and linkages) create movement.	Research Egyptian pulley systems and shaduf to generate some ideas before thinking about resources.	Make	
	select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	<b>Evaluate</b> Explain how to improve a finished model	<b>Make</b> Work accurately to measure, mark out, make cuts, score, make holes and assemble components with more accuracy.	Evaluate	
	<b>Evaluate</b> investigate and analyse a range of existing products	Know why a model has or has not been successful	Start to work safely and accurately with a range of simple tools.	Purpose	
	evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Evaluate their product against their original design criteria (e.g. how well it meets its intended purpose).	Create a model of a Ancient Egyptian shaduf	Audience	
	understand how key events and individuals in design and technology have helped shape the world	<b>Technical Knowledge</b> Know how to strengthen a product by stiffening a given part or reinforce a part of the structure	<b>Technical Knowledge</b> Create a product that incorporates a pulley mechanism.	Functionality	
	<b>Technical Knowledge</b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures			Measure	

Summer Term 2					
<b>How did the blossom become an apple?</b>	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.	Locate foods from around the world and begin to comprehend why they are grown there	Nutrition	Healthy
			Identify which foods are healthy and are essential to maintaining energy	Seasonality	



# Design & Technology

Year 4	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>What did the Ancient Greeks bring to the world?</b>	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	Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques to make an Ancient Greek Pot.	Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science.	Design	research, design, evaluate, construct, purpose
	Select from and use a wider range of tools and equipment to perform practical tasks accurately	Understand how key events and individuals in design and technology have helped shape the world - Know about the designs and uses of pottery in Ancient Greece.	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail. Identify the strengths and areas for development in their ideas and products.	Evaluate	
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work			Functionality	
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures			Innovation	
<b>Autumn Term 2</b>					
<b>What are the main</b>	Design: generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Know how measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques to make a diorama showing physical and human features of the UK.	Choosing appropriate materials and designing a diorama.	design	Prototype, model, modification, constructing, modify, stronger, reinforcing
	Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately		Making a diorama by selecting best design features	make	

<b>features of the UK?</b>	Make: select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities			construction	
				paint	
<b>Spring Term 1</b>					
<b>What happens to the food we eat?  (ANIMALS, INCLUDING HUMANS)</b>	Cooking and nutrition: understand and apply the principles of a healthy and varied diet	Know what makes a healthy, balanced meal	Start to generate ideas, considering the purposes for which they are designing- link with Science.	Design	Combine, recipe, mix, knead, stir, chop, slice, grate, nutrients
	Cooking and nutrition: prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	Understand how foods are broken down by the body and give energy	Make a model digestive system using appropriate materials and tools.	Make	
	Cooking and nutrition: understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	Know the main parts of the digestive system and be able to represent them in a model, designing and selecting appropriate materials			
	Design: generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design				
	Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately				
	Make: select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities design				
<b>Spring Term 2</b>					
<b>What are the main differences about living in the UK and Spain?</b>	Cooking and nutrition: understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	Know what makes a healthy, balanced meal	Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately		Cut, grate, combine, knead, proof, sift, peel
<b>Summer Term 1</b>					

<b>How did Britain change between the end of the Iron Age and the end of the Roman occupation?</b>	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	Know how to choose appropriate materials to design a Roman shield, considering durability and suitability for purpose	Choosing appropriate materials and designing a Roman shield	Design	research, design, evaluate, construct, purpose
	Select from and use a wider range of tools and equipment to perform practical tasks accurately.	Know how to make a Roman shield, choosing from the tools and equipment available	Making a Roman shield by selecting best design features	Sketch	
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Know how to evaluate ideas and end product, suggesting improvements	Evaluating end product and suggesting improvements	Paint	
<b>Summer Term 2</b>					
<b>How can I make a functional electronic torch?</b>	Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups	Know how to choose appropriate materials to design a torch, considering durability and suitability for purpose	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail. Identify the strengths and areas for development in their ideas and products.	Mechanisms	design, make, evaluate, technical knowledge
	Design: generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Know how to make a torch using their Scientific knowledge, choosing from the tools and equipment available	Choosing appropriate materials and designing a torch	Construction	
	Make: select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Know how to evaluate ideas and end product, suggesting improvements	Making a torch by selecting best design features and applying technical knowledge	Engineering	
	Evaluate: investigate and analyse a range of existing products		Evaluating end product and suggesting improvements	Electronics	
	Evaluate: evaluate their ideas and products against their own design criteria and consider the views of others to improve their work			Audience	
	Evaluate: understand how key events and individuals in design and technology have helped shape the world			Design	
	Technical knowledge: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]			Make	
				Evaluate	
				Innovation	
				Technical skills	
				Technical knowledge	

			Functionality	
			Purpose	



## Design & Technology

Year 5	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>How is a river formed?</b>	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	Explain how a product meets its purpose	Use a range of tool competently and safely	Structures	Futureproofing, design, innovation, CAD, prototype, stiffen, design, evaluate, STEM, engineering, architect
	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Know how to strengthen structures	Evaluate appearance and function against original criteria		
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures				
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work				
<b>Autumn Term 2</b>					
<b>How did Britain change between the end of the Roman occupation and 1066?</b>	Understand and apply the principles of a healthy and varied diet	Know how to be hygienic and safe in the kitchen	Weigh and measure accurately (timings, dry ingredients and liquids)	Making savoury dishes Making bread	combining, cutting, mixing, kneading, measuring, hygienic, safety, nutrients, prosessed, reared, milliteres, grams, kilograms
	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	Know how to prepare a meal by collecting the ingredients in the first place	Prepare and cook simple savoury dishes including using a heat source		
	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	Begin to understand that seasons may affect the food available	Use simple cooking techniques such as kneading, mixing, beating, cutting with knives safely and hygienically		
		Know that food is processed into ingredients that can be eaten or used in cooking			
		Know that different foods contain different substances- nutrients, water and fibre- that are needed for health.			

Spring Term 1				
<b>How can I create a watermill system?</b>	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	Name and know how to use a range of tools safely and accurately	Select and use a number of tools accurately	Mechanical systems including pulleys and gears
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Know how mechanical systems (pulleys or gears) can be used to create movement in their products	Select from a range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities	Gears, pulleys, prototype, mechanism, CAD (computer aided design), CAM (computer aided technology), asthetic, function,
	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Competently research products similar to the one they are intending to design and evaluate the strengths and weaknesses	Make a prototype before making a final version	
	Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Begin to appreciate how much products cost to make	Carry out finishing techniques to strengthen, enhance and improve the appearance and function of their products using a range of equipment including ICT	
	Investigate and analyse a range of existing products	Suggest alternative plans; outlining the positive features and drawbacks	Produce a detailed step by step plan	
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		Create annotated 3D designs of their design on CAD or squared paper from a range of viewpoints	
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures		Create products that incorporate gears	
	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]		Evaluate appearance and function against their original criteria and carry out tests to check on specifications	

Spring Term 2				
<b>Will we ever send another human to the moon?</b>	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Identify how designs fulfil a purpose	Use a variety of tools safely and competently	Forces
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Know how to strengthen and reinforce their products	Test products for reliability	Forces, gravity, payload, airtight, power, air dynamic, testing, evaluating, CAD, prototype
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work			

Summer Term 1					
<b>Why should the rainforests be important to us all?</b>	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	Know how to cut and join fabric	Use a variety of tools safely and competently	Textiles	Thread, Join, Sew, Stitch, running stitch, back stitch
	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately		Evaluate appearance and function		
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		Thread a needle		
			Use basic sewing stitches		
Summer Term 2					
<b>Why were the Mayans the envy of the world?</b>	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Know how to strengthen and reinforce their products	To use a variety of tools and equipment competently and safely	Structures	Strength, reinforce,
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures				



## Design & Technology

Year 6	National Curriculum PoS	Knowledge	Skills	Concepts	Vocabulary
<b>Autumn Term 1</b>					
<b>What impact did World War 1 and World War 2 have on people?</b>	understand and apply the principles of a healthy and varied diet	Understand the difference between a sweet and savoury dish	Explain how food ingredients should be stored and give reasons	Diet and nutrition	savoury, nutrients, substances, hygiene, preparation
	prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including where appropriate, use of a heat source	Work within a budget and create a meal		
	understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	know different food and drink contain different substances-nutrients, water and fibre- that are needed for health (Science links)			
<b>Autumn Term 2</b>					
<b>How does the Earth recycle water?</b>	Identify the needs, wants, preferences and values of particular individuals and groups	What materials enable sustainability	Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	function for purpose	sustainability, structure, durable, function,
	Develop a simple design specification to guide their thinking	Durable structures			
<b>Spring Term 1</b>					
<b>What is evolution?</b>	Measure and assemble with a high level of accuracy	paeleontological composition of fossil following talk from museum	build and evaluate a model of a fossil	structure	evaluate, composition, function
	Compare their ideas and products to their original design specification				

Spring Term 2					
<b>How can I find my way around?</b>	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	Know permanent joining techniques	Confidently select appropriate tools, materials, components and techniques and use them efficiently	Structure	reinforce, evaluate, strengthen, design, audience, criteria, technique, finishing, purpose, modification
	generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, and computer-aided design	know finishing techniques to strengthen and improve the appearance of their products using a range of equipment	Explain why a specific tool is best for a specific action	Design	
	select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	know what nomadic desert tents look like and appreciate how they are made	create a camouflaged design for the fabric part of the tent		
	select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	know which types of structures are stable enough to withstand strong winds	Evaluate the tent taking account of both structure and camouflaged textile		
	investigate and analyse a range of existing products		create initial design taking account of both structure and design of the fabric used		
	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				
Summer Term 1					
	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	Know how to use any tool (relevant) correctly and safely	Confidently select appropriate tools, materials, components and techniques and use them efficiently.	Innovation	Design, make, select, reinforce, strengthen, function, evaluate, cut, shape, join, texture, model, innovate, teamwork, innovate, marketing, presentation
	generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, and computer-aided design	Know what each tool is used for	Explain why a specific tool is best for a specific action	Sustainability	
	select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Know which IT product would further enhance a specific product	Make modifications as they go along and justify their reasoning		

<b>Why is a successful brand important to an Entrepreneur?</b>	select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Use knowledge to improve a made product by strengthening, stiffening or reinforcing	construct products using permanent joining techniques		
	investigate and analyse a range of existing products	know how to prepare and cook a variety of dishes safely and hygienically, including using a heat source (workshop)	Use finishing techniques to strengthen and improve the appearance of their products using a range of equipment including ICT		
	evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		Pin, sew and stitch materials together to create a product		
	understand how key events and individuals in design and technology have helped shape the world		Show resourcefulness and resilience when tackling problems.		
	apply their understanding of how to strengthen, stiffen and reinforce more complex structures		Investigate and analyse the impact that products have beyond their intended purpose.		
			Test and evaluate designed products with specified audience where possible (PITCH DAY)		
			Explain how products should be stored and give reasons		
			Evaluate their work both during and at the end		
			Record their evaluations using drawing with labels		
			Explain how food ingredients should be stored and reason why		
<b>Summer Term 2</b>					
<b>Why did the Islamic Golden Age advance history?</b>	know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products	know how a traffic light system works	create an initial design taking account of what is available to them	Mechanics	circuit, component, function, environment
		collect information from existing products	create a prototype to check their ideas work		
			evaluate the traffic light system taking account of what was difficult to achieve		