## Long Term Design and Technology Curriculum Plan with National Curriculum links 2024/25

Nursery and Reception	
-Explore us & refine a variety of artistic effects to express their ideas & feelings -Return to & build on their previous learning, refining ideas & developing their ability to represent them -Create collaboratively, sharing ideas, resources	<ul> <li>-Safely use &amp; explore a variety of materials, tools &amp; techniques, experimenting with colour, design, texture, form &amp; function.</li> <li>-Share their creations, explaining the process they used</li> <li>-Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.</li> <li>Offer explanations for why things might happen.</li> <li>-Managing Self.</li> <li>-Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.</li> <li>-Building Relationships.</li> <li>-Work and play cooperatively and take turns with others.</li> <li>-Use a range of small tools, including scissors, paint brushes and cutlery.</li> <li>-Begin to show accuracy and care when drawing.</li> <li>-Understand some important processes and changes in the natural world around them.</li> </ul>

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Group						
1	Mechanisms –		Cooking and		Textiles - puppets	
	Wheels and axels		nutrition -			
			Smoothies			
	<ul> <li>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</li> <li>Select from and use a wide range of materials and components, including construction materials,</li> </ul>		- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology. - Select from and use a range of tools and equipment to		<ul> <li>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</li> <li>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and,</li> </ul>	
	textiles and ingredients, according to their		perform practical tasks [for example, cutting, shaping,		where appropriate, information and	
	characteristics.		joining and finishing].		communication technology.	

	Enderson 1 1	Colori for the	Colori for a sub-second
	<ul> <li>Explore and evaluate a range of existing products.</li> </ul>	<ul> <li>Select from and use a wide range of materials and components, including</li> </ul>	- Select from and use a range of tools and equipment to perform practical tasks [for
		construction materials, textiles	example, cutting, shaping,
		and ingredients, according to	joining and finishing].
		their characteristics.	-Evaluate their ideas and
		-Evaluate their ideas and	products against design
		products against design	criteria.
		criteria.	
2	Structures – Baby	Textiles - Pouches	Cooking and
-	'	rextiles rouenes	Ū Ū
	Bear's Chair		nutrition –
			Balanced Diet
	- Design purposeful,	- Design purposeful, functional,	- Design purposeful,
	functional, appealing	appealing products for	functional, appealing
	products for themselves and	themselves and other users	products for themselves and
	other users based on design	based on design criteria.	other users based on design
	criteria.	- Generate, develop, model	criteria.
	- Select from and use a range	and communicate their ideas	- Select from and use a range
	of tools and equipment to	through talking, drawing,	of tools and equipment to
	perform practical tasks [for	templates, mock- ups and,	perform practical tasks [for
	example, cutting, shaping,	where appropriate,	example, cutting, shaping,
	joining and finishing].	information and	joining and finishing].
	-Build structures, exploring	communication technology.	- Select from and use a wide
	how they can be made	<ul> <li>Select from and use a range</li> </ul>	range of materials and
	stronger, stiffer and more	of tools and equipment to	components, including
	stable.	perform practical tasks [for	construction materials,
		example, cutting, shaping,	textiles and ingredients,
		joining and finishing].	according to their
		- Select from and use a wide	characteristics.
		range of materials and	- Explore and evaluate a
		components, including	range of existing products.
		construction materials, textiles	
		and ingredients, according to	
		their characteristics.	
		- Explore and evaluate a range	
		of existing products.	

3	Structures -	Mechanical –	Cooking and
	Castles	Pneumatic toys	nutrition – Easting
			seasonally
	Castles -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 groupsSelect from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accuratelySelect from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristicsInvestigate and analyse a range of existing productsEvaluate their ideas and products against their own design criteria	-Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross- sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.         -Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.         -Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.         - Understand how key events and individuals in design and technology have helped shape the world.	nutrition – Easting seasonally -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. -Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. -Understand and apply principles of a healthy and varied diet. -Prepare and cook 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.
	design criteria and consider the views of others to improve their work.	- Understand and use mechanical systems in their products [for example, gears, pulleys,	
	-Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	cams, levers and linkages].	

4	Structures –		Electrical -Torches		Textiles -	
	Pavillions				Fastenings	
	-Use research and develop		-Generate, develop, model and		-Use research and develop	
	design criteria to inform the		communicate their ideas		design criteria to inform the	
	design of innovative,		through discussion, annotated		design of innovative,	
	functional, appealing		sketches, cross-sectional and		functional, appealing	
	products that are fit for		exploded		products that are fit for	
	purpose, aimed at particular		diagrams, prototypes, pattern		purpose, aimed at particular	
	individuals or groups.		pieces and computer- aided		individuals or groups.	
	-Generate, develop, model		design.		-Generate, develop, model	
	and communicate their ideas		-Select from and use a wider		and communicate their ideas	
	through discussion,		range of tools and equipment		through discussion,	
	annotated sketches, cross-		to perform practical tasks [for		annotated sketches, cross-	
	sectional and exploded		example, cutting, shaping,		sectional and exploded	
	diagrams, prototypes,		joining and finishing],		diagrams, prototypes,	
	pattern pieces and		accurately.		pattern pieces and	
	computer- aided design.		-Evaluate their ideas and		computer- aided design.	
	-Select from and use a wide		products against their own		-Select from and use a wider	
	range of materials and		design criteria and consider the		range of tools and	
	components, including		views of others to improve		equipment to perform	
	construction materials,		their work.		practical tasks [for example,	
	textiles and ingredients,		<ul> <li>Understand how key events</li> </ul>		cutting, shaping, joining and	
	according to their		and individuals in design and		finishing], accurately.	
	characteristics.		technology have helped shape		-Investigate and analyse a	
	-Investigate and analyse a		the world.		range of existing products.	
	range of existing products.		<ul> <li>Understand and use electrical</li> </ul>		-Evaluate their ideas and	
	-Apply their understanding		systems in their products [for		products against their own	
	of how to strengthen, stiffen		example, series circuits		design criteria and consider	
	and reinforce more complex		incorporating switches, bulbs,		the views of others to	
	structures.	_	buzzers and motors].		improve their work.	
5		Structures -		Mechanical – Pop		Cooking and
		Bridges		Up book		nutrition –
						Developing a recipe
		-Use research and develop		-Select from and use a wide	1	-Use research and develop
		design criteria to inform		range of materials and		design criteria to inform the
		the design of innovative,		components,		design of innovative, functional,
		functional, appealing		including construction		appealing products that are fit
		products that are fit for		materials, textiles and		for purpose, aimed at particular
		purpose, aimed at		ingredients, according to		individuals or groups.
		particular individuals or		their characteristics.		-Generate, develop, model and
		groups.		-Investigate and analyse a		communicate their ideas
		-Generate, develop, model		range of existing products.		through discussion, annotated
		and communicate their				

6	Mechanisms – Automata toys	ideas through discussion, annotated sketches, cross- sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. -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. -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Textiles - Waistcoats	-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Electrical Systems – Steady hand game	sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. -Investigate and analyse a range of existing products. -Understand and apply principles of a healthy and varied diet. -Prepare and cook 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.
	Automata toys		Waistcoats		Steady hand game	
	-Select from and use a wider		-Use research and develop		-Generate, develop, model	
	range of tools and		design criteria to inform the		and communicate their ideas	
	equipment to perform		design of innovative,		through discussion,	
	practical tasks [for example,		functional, appealing products		annotated sketches, cross-	
	cutting, shaping, joining and		that are fit for purpose, aimed		sectional and exploded	
	finishing], accurately.		at particular individuals or		diagrams, prototypes,	
	Investigate and analyse a		groups.		pattern pieces and	
	range of existing products.		-Generate, develop, model and		computer- aided design.	
	-Evaluate their ideas and		communicate their ideas		-Select from and use a wider	
	products against their own		through discussion, annotated		range of tools and	
	design criteria and consider the views of others to		sketches, cross-sectional and exploded		equipment. -Understand how key events	
	improve their work.		diagrams, prototypes, pattern		and individuals in design and	
	-Understand how key events		pieces and computer- aided		technology have helped	
	and individuals in design and		design.		shape the world.	
	technology have helped		Investigate and analyse a		-Understand and use	
	shape the world.		range of existing products.		electrical systems in their	
	-Understand and use		-Evaluate their ideas and		products	
	mechanical systems in their		products against their own		[for example, series circuits	
	products		design criteria and consider the		incorporating switches,	
	[for example, gears, pulleys,		views of others to improve		bulbs, buzzers and motors].	
	cams, levers and linkages.		their work.			