DT Long Term Plan 2023-2024



	Autumn 1 / Autumn 2	<u>Spring1</u> / <u>Spring 2</u>	<u>Summer1</u> / <u>Summer2</u>
Year	<u>To design, make and evaluate a healthy</u>	Build a structure and explore how the structure can	To design and make a picture with a moveable
<u>One</u>	meal.	be made stiffer, stronger and more stable.	mechanism.
			Design
	 use the basic principles of a healthy and 	Design	- design purposeful, functional, appealing products
	varied diet to prepare dishes	- design purposeful, functional, appealing products for	for themselves and other users based on design
		themselves and other users based on design criteria	criteria
	 understand where food comes from. 	-generate, develop, model and communicate their ideas	-generate, develop, model and communicate their
		through talking, drawing, templates, mock-ups and,	ideas through talking, drawing, templates,
		where appropriate, information and communication	mock-ups and, where appropriate, information and
		technology	communication technology
		Make	<u>Make</u>

		 -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 Evaluate -explore and evaluate a range of existing products -evaluate their ideas and products against design criteria Technical knowledge -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. 	 -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 Evaluate -explore and evaluate a range of existing products -evaluate their ideas and products against design criteria Technical knowledge -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.
<u>Year</u>	Design and make - Models of the types of	Food technology - savoury dishes	<u>Design and make - Textiles, sewing.</u>
Two	buildings burned in the GFNG		Design
		- use the basic principles of a healthy and varied diet	- design purposeful, functional, appealing products
	Design	to prepare dishes	for themselves and other users based on design
	- design purposeful, functional, appealing		criteria
	products for themselves and other users based	- understand where food comes from.	-generate, develop, model and communicate their
	on design criteria		ideas through talking, drawing, templates,
	-generate, develop, model and communicate	-select from and use a wide range of ingredients,	mock-ups and, where appropriate, information and
	their ideas through talking, drawing, templates,	according to their characteristics	communication technology
	mock-ups and, where appropriate, information		Make
	and communication technology		-select from and use a range of tools and
	Make		equipment to perform practical tasks [for example,
	<u>Make</u> -select from and use a range of tools and		equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
	<u>Make</u> -select from and use a range of tools and equipment to perform practical tasks [for		equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and
	<u>Make</u> -select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]		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,
	<u>Make</u> -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		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
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	<u>Make</u> -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		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 <u>Evaluate</u>
	<u>Make</u> -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		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 <u>Evaluate</u> -explore and evaluate a range of existing products
	<u>Make</u> -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		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 <u>Evaluate</u>

Maa	-evaluate their ideas and products against design criteria Technical knowledge -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.		-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.
<u>Yea</u> <u>Thre</u>		Textile Design - (use of variety of materials and techniques). 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 -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 -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 Evaluate -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 and use mechanical systems in their products. Apply their understanding of how to strengthen. stiffen and reinforce more complex structures. 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 -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <u>Make</u> -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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <u>Evaluate</u> -investigate and analyse a range of existing products

		 -understand how key events and individuals in design and technology have helped shape the world Technical knowledge -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. 	 -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 Technical knowledge -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.
<u>Year</u>	<u>Prepare and cook a variety</u>	Understand and use electrical systems in their	<u>Textiles.</u>
<u>Four</u>	<u>of dishes.</u> -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.	products. 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	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 -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
		Make	<u>Make</u>
		-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 wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
		-select from and use a wider range of materials and components, including construction materials, textiles	-select from and use a wider range of materials and components, including construction materials,

		and ingredients, according to their functional properties and aesthetic qualities Evaluate -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 Technical knowledge -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.	textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate -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 Technical knowledge -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.
<u>Year</u> <u>Five</u>	Textile Design - (use of variety of materials and techniques) Design and make a purse or bag for an Anglo Saxon to keep their treasure in. 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	Research foods popular in NY and create a deli menu. -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.	Apply their understanding of how to strengthen. stiffen and reinforce more complex structures 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 -generate, develop, model and communicate their ideas through discussion, annotated sketches,

-generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

<u>Make</u>

-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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

<u>Evaluate</u>

-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 Technical knowledge

-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

cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

<u>Make</u>

-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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

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-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.

		incorporating switches, bulbs, buzzers and motors] -apply their understanding of computing to program, monitor and control their products.		
	Voar Six		Prenare and cook a variety of dishes	Textiles
-		•	Tepare and cook a variety of dishes.	
	<u>Year Six</u>	Understand and use electrical systems in their products. 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 -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <u>Make</u> -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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Prepare and cook a variety of dishes. -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.	Textiles -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 Make -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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate -investigate and analyse a range of existing products
		<u>Evaluate</u>		-evaluate their ideas and products against their own design criteria and consider the views of
		-investigate and analyse a range of existing products		others to improve their work -understand how key events and individuals in
		-evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		design and technology have helped shape the world Technical knowledge

-understand how key events and individuals in	-apply their understanding of how to strengthen,
design and technology have helped shape the	stiffen and reinforce more complex structures
world Technical knowledge	
-	-understand and use mechanical systems in their
-apply their understanding of how to	products [for example, gears, pulleys, cams, levers
strengthen, stiffen and reinforce more complex	and linkages]
structures	5 1
	-understand and use electrical systems in their
-understand and use mechanical systems in	products [for example, series circuits
their products [for example, gears, pulleys,	incorporating switches, bulbs, buzzers and motors]
	incol por aring switches, baibs, bazzers and motors]
cams, levers and linkages]	-apply their understanding of computing to
-understand and use electrical systems in their	program, monitor and control their products.
products [for example, series circuits	
incorporating switches, bulbs, buzzers and	
motors]	
-	
-apply their understanding of computing to	
program, monitor and control their products.	