

Design and Technology Curriculum 2022/23

	Autumn	Spring	Summer
Year 1	Mechanisms: Wheels &	Mechanisms: Wheels &	Cooking and nutrition
	axels	axels	
	Textiles: 2D shape to 3D		
	product, combining		
	different fabric shapes		
Year 2	Mechanisms: Sliders &	Cooking and nutrition	Structures
	Leavers		
Year 3	Structures	Mechanisms: cams	Cooking and nutrition
Year 4	Electrical systems: simple	Mechanical systems: Levers	Cooking and nutrition
	circuits & switches	& linkages, Pulleys	
Year 5	Cooking and nutrition	Structures	Mechanical systems:
			pneumatic
Year 6	Electrical systems: simple	Textiles: 2D shape to 3D	Cooking and nutrition
	circuits & switches	product, combining	
		different fabric shapes	



Curriculum Map

Design and	Autı	ımn	Spring		Summer	
technology	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1	Moon zoom (Mechanisr	ns)	Bright lights, big city		Paws, claws and whiskers	
	Explore and evaluate a range of existing		Build structures, exploring how they can be made		Design purposeful, functional, appealing products	
	products.		stronger, stiffer and more stable.		for themselves and other users based on design	
	Evaluate their ideas and	products against design	Taxi (Mechanisms)		criteria.	
	criteria.		Design purposeful, functional, appealing products for		Generate, develop, model and communicate their	
	Build structures, exploring how they can be		themselves and other users based on design criteria.		ideas through talking, drawing, templates, mock-	
	made stronger, stiffer and more stable.		Generate, develop, model and communicate their		ups and, where appropriate, information and	
	Explore and use mechan	isms (wheels and	ideas through talking, drawing, templates, mock-ups		communication technology.	
	axles), in their products.		and, where appropriate, information and		Select from and use a wide range of materials and	
	Funny faces and fabulou	us features (Textiles)	communication technology.		components, according to their characteristics.	
	Select from and use a ra	nge of tools and	Explore and evaluate a range of existing products.		Chop, slice and mash (Cooking and nutrition)	
	equipment to perform p	ractical tasks	Evaluate their ideas and products against design		Use the basic principles of a healthy and varied	
	Select from and use a wi	de range of materials	criteria.		diet to prepare dishes.	
	and components (textile	s) according to their	Explore and use mechanisms (wheels and axles), in		Understand where food co	mes from
	characteristics.		their products.			
Year 2	Push and Pull (Mechanis	sms)	Wiggle and crawl		Beach hut (Structures)	
	Select from and use a wi	de range of materials	The scented garden		Design purposeful, function	al, appealing products
	and components, includ	ing construction	Remarkable recipes (Coo	king and nutrition)	for themselves and other u	sers based on design
	materials, textiles and in	gredients, according to	Select from and use a ran	ge of tools and equipment	criteria.	
	their characteristics.		to perform practical tasks		Generate, develop, model a	and communicate their
					ideas through talking, draw	ing, templates, mock-

Explore and evaluate a range of existing Select from and use a wide range of materials and ups and, where appropriate, information and components, including construction materials, products. communication technology. Evaluate their ideas and products against design textiles and ingredients, according to their Select from and use a range of tools and criteria. characteristics. equipment to perform practical tasks. Explore and use mechanisms (levers, sliders), in Select from and use a wide range of materials and Use the basic principles of a healthy and varied diet their products. to prepare dishes. components, including construction materials, Understand where food comes from. textiles and ingredients, according to their characteristics. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Build structures, exploring how they can be made stronger, stiffer and more stable. **Greenhouse (Structures)** Making it move (Mechanisms) Cook well, eat well (Cooking and nutrition) Year 3 Use research and develop design criteria to inform Use research and develop design criteria to inform Use research and develop design criteria to inform the design of innovative, functional, the design of innovative, functional, appealing the design of innovative, functional, appealing appealing products that are fit for purpose, products that are fit for purpose, aimed at particular products that are fit for purpose, aimed at aimed at particular individuals or groups. individuals or groups. particular individuals or groups. Generate, develop, model and communicate Generate, develop, model and communicate their Generate, develop, model and communicate their their ideas through discussion, annotated ideas through discussion, annotated sketches, crossideas through discussion, annotated sketches, sketches, cross-sectional and exploded sectional and exploded diagrams, prototypes, cross-sectional and exploded diagrams, diagrams, prototypes, pattern pieces and pattern pieces and computer-aided design. prototypes, pattern pieces and computer-aided computer-aided design. Select from and use a wider range of tools and design. Select from and use a wider range of tools and equipment to perform practical tasks accurately. Evaluate their ideas and products against their equipment to perform practical tasks Select from and use a wider range of materials and own design criteria and consider the views of accurately. components, according to their functional properties others to improve their work. Select from and use a wider range of materials Understand how key events and individuals in and aesthetic qualities. and components according to their functional Investigate and analyse a range of existing products. design and technology have helped shape the properties and aesthetic qualities. Evaluate their ideas and products against their own world. Investigate and analyse a range of existing design criteria and consider the views of others to Understand and apply the principles of a healthy products. improve their work. and varied diet. Understand and use mechanical systems in their

products (cams).

Evaluate their ideas and products against their Prepare and cook a variety of predominantly own design criteria and consider the views of savoury dishes using a range of cooking techniques. others to improve their work. Understand how key events and individuals in Understand seasonality, and know where and how design and technology have helped shape the a variety of ingredients are grown, reared, caught world. and processed. Apply their understanding of how to Develop the creative, technical and practical strengthen, stiffen and reinforce more complex expertise needed to perform everyday tasks confidently and to participate successfully in an structures. increasingly technological world. Misty mountain, winding river Tomb builders (Mechanisms) Fresh food, good food (Cooking and nutrition) Year 4 Select from and use a wider range of materials Select from and use a wider range of materials and Use research and develop design criteria to inform and components, including construction components, including construction materials, the design of innovative, functional, appealing textiles and ingredients, according to their functional materials, textiles and ingredients, according to products that are fit for purpose, aimed at their functional properties and aesthetic properties and aesthetic qualities. particular individuals or groups. Evaluate their ideas and products against their own Generate, develop, model and communicate their qualities. Investigate and analyse a range of existing design criteria and consider the views of others to ideas through discussion, annotated sketches, products. improve their work. cross-sectional and exploded diagrams, Understand and use mechanical systems in their prototypes, pattern pieces and computer-aided **Electrical circuits and conductors** Use research and develop design criteria to products (pulleys, levers). design. inform the design of innovative, functional, Select from and use a wider range of materials including ingredients, according to their functional appealing products that are fit for purpose, aimed at particular individuals or groups. properties and aesthetic qualities. Generate, develop, model and communicate Investigate and analyse a range of existing their ideas through discussion, annotated products. Evaluate their ideas and products against their sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and own design criteria and consider the views of computer-aided design. others to improve their work. Investigate and analyse a range of existing Understand how key events and individuals in design and technology have helped shape the products. Evaluate their ideas and products against their world. own design criteria and consider the views of Apply their understanding of how to strengthen,

stiffen and reinforce more complex structures.

others to improve their work.

	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.		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. Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an
			increasingly technological world.
Year 5	Eat the seasons (Cooking and nutrition)	Architecture (Structures)	Moving mechanisms (Pneumatic systems)
	Sow, grow and farm	Use research and develop design criteria to inform	Select from and use a wider range of tools and
	Allotment	the design of innovative, functional, appealing	equipment to perform practical tasks (for
	Understand and apply the principles of a	products that are fit for purpose, aimed at particular	example, cutting, shaping, joining and finishing),
	healthy and varied diet.	individuals or groups.	accurately.
	Prepare and cook a variety of predominantly	Generate, develop, model and communicate their	Select from and use a wider range of materials and
	savoury dishes using a range of cooking	ideas through discussion, annotated sketches, cross-	components, including construction materials,
	techniques.	sectional and exploded diagrams, prototypes,	textiles and ingredients, according to their
	Understand seasonality, and know where and	pattern pieces and computer-aided design.	functional properties and aesthetic qualities.
	how a variety of ingredients are grown, reared,	Select from and use a wider range of materials and	Investigate and analyse a range of existing
	caught and processed.	components, including construction materials,	products.
		textiles and ingredients, according to their functional	Evaluate their ideas and products against their
		properties and aesthetic qualities.	own design criteria and consider the views of
		Investigate and analyse a range of existing products.	others to improve their work.
		Evaluate their ideas and products against their own	Apply their understanding of how to strengthen,
		design criteria and consider the views of others to	stiffen and reinforce more complex structures.
		improve their work.	Understand and use mechanical systems in their
		Understand how key events and individuals in design	products (pneumatic systems).
		and technology have helped shape the world.	Critique, evaluate and test their ideas and
		Apply their understanding of how to strengthen,	products and the work of others.
		stiffen and reinforce more complex structures.	

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Electrical circuits and components

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.

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

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. Critique, evaluate and test their ideas and products and the work of others.

Make do and mend (Textiles)

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 (textiles), according to their functional properties and aesthetic qualities.

Investigate and analyse a range of existing products.

Food for life (Cooking and nutrition)

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 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.