



			Design and Technology Progression						
			Desig	n					
Nursery	Reception	KS1	Lower KS2	Upper KS2	KS3				
		KS1 DT National Curriculum Pupils should design purposeful, functional, appealing products for themselves and other users based on design criteria Pupils should generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Pupils should 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 Pupils should generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design		KS3 DT National Curriculum Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users				
• Develop own ideas & decide which materials to use to express them	• Develop own ideas through experimentation with diverse materials to express & communicate their discoveries & understanding • Create collaboratively sharing ideas, resources & skills	Understanding contexts, users and purposes: • Work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. • Understand and follow simple design criteria • Design products that have a purpose and are aimed at an intended user	Understanding contexts, users and purposes: • Work in a wide range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. • Develop and follow simple design criteria • Design innovative and appealing products that have a clear purpose and are aimed at a specific user	Understanding contexts, users and purposes: • Work in a wider range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment. • Use research to inform and develop detailed design criteria • Design innovative, functional and appealing products that are fit for	Understanding contexts, users and purposes: •Work in a range of domestic and local contexts for example, the home, health, leisure and culture, and industrial contexts for example, engineering, manufacturing, construction, food, energy, agriculture (including horticulture) and fashion. •Use research and exploration, such as the study of different				





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	Begin to identify the design feat of their products that will appeal intended customers		cultures, to identify and understand user needs •Identify and solve their own design problems and understand how to reformulate problems given to them
ideas: • Use their know products and the to help generate • Begin to explait products will look through talking a annotated drawing with the work of the supproperate of the supproperat	and communicating ideas: • Use their knowledge of a range existing products to help generate their ideas Their id	modelling and communicating ideas: • Use their knowledge of a broad range of existing products to help generate their ideas • Give detailed explanations of how particular parts of their products work • Use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas; • Generate a range of design ideas and clearly communicate final designs; • Consider the availability and costings of resources when	Generating, developing, modelling and communicating ideas: •Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations •use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses •Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools





			Design and Technology Progression						
			Make						
		KS1 DT National Curriculum 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	KS2 DT National Curriculum 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		KS3 DT National Curriculum Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world				
Nursery	Reception	KS1	LKS2	UKS2	KS3				
		Planning: • With support, follow a simple plan or recipe • Begin to select hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer • Select materials, textiles and components according to their characteristics	Planning: • Place the main stages of making in a systematic order • With growing confidence, select from a range of tools and equipment, explaining their choices • Select from a range of materials and components according to their functional properties and aesthetic qualities • LKS2 Planning: • Independently plan by suggesting what to do next • Create step-by-step plans as a guide to making • Confidently and carefully select from a wide range of tools and equipment, explaining their choices • Select from a wide range of materials and components according to their functional properties and aesthetic qualities		Planning: • Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture				





		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
• Use various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces • Use available	Use increasing knowledge & understanding of tools & materials to explore their interests & enquiries & develop their thinking Create	Practical skills and techniques: • Learn to use some hand tools and kitchen equipment safely	Practical skills and techniques: • Learn to use some hand tools and kitchen equipment safely and appropriately.	Practical skills and techniques: • Learn to use a range of tools and equipment safely and appropriately.	Practical skills and techniques: • Learn to use a range of tools and equipment safely, appropriately and accurately.	Practical skills and techniques: • Learn to use a wider range of tools and equipment safely and appropriately	Practical skills and techniques: • Learn to use a wider range of tools and equipment safely, appropriately and accurately.	Practical skills and techniques: • Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties
resources to create props or creates imaginary ones to support play	representations both imaginary & real-life ideas, events, people & objects	•With adult support, begin to follow basic hygiene procedures	•With adult support, consistently follow basic hygiene procedures	•To be able to name hygiene procedures.	•To be able to name and explain the importance of following hygiene procedures.	•To follow hygiene procedures independently.	•To select and follow the correct hygiene procedures that are necessary for completing a task.	
		• Use some materials and components, including textiles and food ingredients	• To select and use some materials and components, including textiles and food ingredients	• Use a range of materials and components, including construction materials and kits, textiles and mechanical and electrical components	• To select and use a range of materials and components, including construction materials and kits, textiles and mechanical and electrical components			





• With guided adult support, measure and mark out	• With some adult support, measure and mark out	• With growing independence, measure and mark out to the nearest cm	• With growing independence, measure and mark out to the nearest millimetre.	• Independently take exact measurements and mark out, to within 1 millimetre	• Independently decide apparatus and take exact measurements and mark out, to within 1 millimetre	
• Cut and shape materials with help	• Cut, shape and score materials with help	• With help, Cut, shape and score materials with some degree of accuracy.	• Independently cut, shape and score materials with some degree of accuracy			
• With adult support, assemble, join and combine materials, components or ingredients	• Assemble, join and combine materials, components or ingredients	• With adult support, assemble, join and combine material and components with some degree of accuracy	Assemble, join and combine material and components with some degree of accuracy	• With adult support, use a full range of materials and components, including construction materials and kits, textiles, and mechanical components	• Use a full range of materials and components, including construction materials and kits, textiles, and mechanical components	
Begin to cut and join fabric to make a simple product	• Independently demonstrate how to cut, shape and join fabric to make a simple product	• Demonstrate how to measure, cut, shape and join fabric to make a simple product	• Independently demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product	• With adult support, cut a range of materials with precision and accuracy	• Independently cut a range of materials with precision and accuracy	





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• Manipulate fabrics in simple ways to create the desired effect	• Manipulate fabrics to create the desired effect	• Join textiles with a sewing technique	• Join textiles with an appropriate sewing technique	Shape and score materials with accuracy.	Shape and score materials with precision and accuracy.	
• Use a basic running stitch with support.	• Use a basic running stitch			Assemble, join and combine materials and components.	Assemble, join and combine materials and components with accuracy.	
• Cut and grate ingredients, including measuring and weighing ingredients using measuring cups	• Cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups					
• Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations	• Use simple finishing techniques to improve the appearance of their product, such as adding simple decorations	• Begin to select and use different and appropriate finishing techniques to improve the appearance of a product	• Select and use different and appropriate finishing techniques to improve the appearance of a product	• With guidance, refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape	• Refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape	





		Des	Design and Technology Progression					
			Evaluate					
		KS1 DT National Curriculum Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria	KS2 DT National Curriculum Investigate and analyse a range of Evaluate their ideas and products criteria and consider the views of Understand how key events and in technology have helped shape the	KS3 DT National Curriculum Critique, evaluate and test their ideas and products and the work of others				
Nursery	Reception	KS1	Lower KS2	Upper KS2	KS3			
		Evaluating – Existing products: • Explore what products are and who or what they are for • Explore how products work and how or where they might be used. • Explore what materials products are made from • Explore what they like and dislike about products	Evaluating – Existing products: • Investigate and analyse how well products have been designed and made • Investigate and analyse why materials have been chosen and begin to suggest reasons for this • Investigate and analyse the methods of construction used and begin to suggest reasons for this • Investigate and analyse how well products work to achieve their purposes	Evaluating – Existing products: • Investigate and analyse how well products have been designed and made • Investigate and analyse why materials have been chosen and give reasons for this • Investigate and analyse the methods of construction used and give reasons for this • Investigate and analyse how well products meet user needs and wants • Investigate and analyse how innovative products are	Evaluating - Existing products: • Analyse the work of past and present professionals and others to develop and broaden their understanding • Investigate new and emerging technologies test, evaluate and refine their ideas and products against a specification, taking into account the views of intended			





					users and other interested groups
• Notice what other children & adults do, mirroring what is observed, adding variations & then doing it spontaneously	Express & communicates working theories, feelings & understandings Responds imaginatively to art works & objects Return to & build on previous learning, refining ideas & developing their ability to represent them Discuss problems & how they might be solved	Evaluating – Own ideas and products: • Talk about their design ideas and what they are making • Make simple judgements about their products and ideas against design criteria • Suggest how their products could be improved	Evaluating – Own ideas and products: • Identify the strengths and areas for development in their ideas and products Consider the views of others, including intended users, to improve their work • Refer to their design criteria as they design and make • Use their design criteria to evaluate their completed products	Evaluating – Own ideas and products: • Identify the strengths and areas for development in their ideas and products • Consider the views of others, including intended users, to improve their work • Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • Evaluate their ideas and products against their original design specification	Evaluating - Own ideas and products •Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups
			Evaluating – Key events and individuals: • Know about the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.	Evaluating – Key events and individuals: • Know about and evaluate key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.	Evaluating - Key events and individuals: • Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists





		Design and Technology Progression Technical Knowledge					
Nursery	Reception	KS1 DT National Curriculum 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	KS3 DT National Curriculum Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world				
Nursery	Reception	KS1	Lower KS2	Upper KS2	KS3		





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• Develop new skills &	
techniques	

• Use tools for a purpose

- Use different techniques for joining materials
- Use tools independently, with care & precision

Talk about and begin to understand the simple working characteristics of materials and components

- Build simple structures, exploring how they can be made stronger, stiffer and more stable
- Explore and create products using simple mechanisms, such as levers, sliders and wheels.
- Understand that 3-D textiles products can be assembled from two identical fabric shapes
- Explore food ingredients and begin to understand that ingredients should be combined according to their sensory characteristics
- Begin to use the correct technical vocabulary for the projects they are undertaking

- Understand that materials have both functional properties and aesthetic qualities
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
- Explain how mechanical systems such as levers and linkages create movement and use mechanical systems in their products.
- Understand and demonstrate how mechanical and electrical systems have an input and output process
- Make and represent simple electrical circuits, such as a series and parallel, and components to create functional products
- Understand that a single fabric shape can be used to make a 3D textiles product

- Understand that materials have both functional properties and aesthetic qualities
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
- Explain how mechanical systems, such as cams, create movement and use mechanical systems in their products;
- Understand and demonstrate that mechanical and electrical systems have an input, process and output; Understand how more complex electrical circuits and components can be used to create functional products
 Apply their
- Apply their understanding of computing to program, monitor and control a product

- Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions
- Understand how more advanced mechanical systems used in their products enable changes in movement and force
- Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]
- •Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].





	• Use the correct technical vocabulary for the projects they are	Confidently use the correct technical vocabulary for the	
	undertaking	projects they are undertaking	



		Design	and Technolog	•	
			Cooking and Nut	rition	
		KS1 DT National Curriculum Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from	KS2 DT National Curric Understand and apply the and varied diet Prepare an predominantly savoury dis cooking techniques Understand seasonality, an variety of ingredients are g processed	principles of a healthy d cook a variety of whes using a range of ad know where and how a	KS3 DT National Curriculum As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life
Nursery	Reception	KS1	Lower KS2	Upper KS2	KS3
		Where food comes from:	Where food comes	Where food comes	Where food comes from:
		Understand that all food comes from	from:	from:	• Understand the source,
		plants or animals	 Understand that food 	Understand that food	seasonality and
		• Understand that food has to be farmed,	ingredients can be fresh,	is processed into	characteristics of a broad
		grown elsewhere (e.g. home) or caught			range of ingredients



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			and applied and	inamadianta that as the	
			pre-cooked and	ingredients that can be	
			processed	eaten or used in cooking	
			• Start to know when,	Know, explain and give	
			where and how food is	examples of food that is	
			grown (such as	grown (such as pears,	
			tomatoes, wheat and	wheat and potatoes),	
			potatoes), reared (such	reared (such as poultry	
			as pigs, chickens and	and cattle) and caught	
			cattle) and caught (such	(such as fish) in the UK,	
			as fish) in the UK,	Europe and the wider	
			Europe and the wider	world	
			world	Understand about	
			Start to understand	seasonality, how this	
			seasonality and know	may affect the food	
			where and how a variety	availability and plan	
			of ingredients are grown	recipes according to	
				seasonality	
Talk about the	• Look closely at	Food preparation, cooking and nutrition:	Food preparation,	Food preparation,	Food preparation,
differences between	similarities, differences,	Name and sort foods into the five groups	cooking and nutrition:	cooking and nutrition:	cooking and nutrition:
materials & changes they	patterns & change	in the Eatwell Guide	• Explain that a healthy	Explain that foods	Understand and apply the
notice	• Know & talk about the	Understand that everyone should eat at	diet is made up of a	contain different	principles of nutrition and
Make healthy choices	different factors that	least five portions of fruit and vegetables	variety and balance of	substances, such as	health
	support their overall	every day and start to explain why	different food and drink,	protein, that are needed	•Cook a repertoire of
	health & well-being	• Use what they know about the Eatwell	as represented in the	for health and be able to	predominantly savoury
		Guide to design and prepare dishes	Eatwell Guide and be	apply these principles	dishes so that they are able
		Follow a simple recipe with support	able to apply these	when planning and	to feed themselves and
		Prepare simple dishes safely and	principles when	preparing dishes	others a healthy and varied
		hygienically	planning and cooking	Accurately and	diet
		• Use simple cooking techniques such as	dishes	independently follow	become competent in a
		cutting, peeling and grating		each step of a recipe	range of cooking



-			
	Understand to be	Demonstrate how to	techniques [for example,
	active and healthy, food	prepare and cook a	selecting and preparing
	and drink are needed to	variety of predominantly	ingredients; using utensils
	provide energy for the	savoury dishes safely	and electrical equipment;
	body	and hygienically	applying heat in different
	Start to independently	including, where	ways; using awareness of
	follow a recipe	appropriate, the use of a	taste, texture and smell to
	Prepare and cook a	heat source;	decide how to season dishes
	variety of predominantly	• Alter methods,	and combine ingredients;
	savoury dishes safely	cooking times and/or	adapting and using their
	and hygienically	temperatures as	own recipes]
	• Use a heat source to	necessary •	_
	cook ingredients with	Understanding the	
	support, showing	importance of storing,	
	awareness of the need to	handling and heating	
	control the temperature	food correctly	
	of the hob and/or oven	Measure accurately and	
	Measure and weighing	calculate ratios of	
	ingredients to the	ingredients to scale up	
	nearest gram and	or down from a recipe	
	millilitre	• Use a wider range of	
	• Use a range of cooking	cooking techniques,	
	techniques such as	such as dicing,	
	peeling, chopping,	shredding, baking, frying	
	slicing, grating, mixing,	and boiling	
	spreading, kneading and		
	baking		







