

## Curriculum skills progression – DT

	Design	Make	Evaluate	Technical Knowledge	Cooking Nutrition
Nursery	Design and experiments to create different textures, that are appealing to themselves and others. Explore what they can do with different media and what happens when they put different things together such as sand, paint and sawdust. Generate, develop and model and communicate their ideas through talking, drawing, templates, mock- ups and where appropriate, ICT	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	Say what they like and dislike about products they make. Know when they have made a mistake	Children explore a variety of toys, exploring how they work and begin to use them purposefully. Begin to name tools and materials they have used.	Begin to know and understand the need for basic hygiene in cooking Begin to know about the need for a variety of foods in a diet. Begin to develop a food vocabulary.
Reception	Design and experiments to create different textures, that are appealing to themselves and others. Generate, develop and model and communicate their ideas through talking, drawing, templates, mock- ups and where appropriate, ICT experiments to create different textures. Manipulate materials to create a planned effect. Constructs with a purpose in mind, using a variety of resources.	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 the purpose of designs they find in their homes and schools. Begin to think about how the materials they have used work within their design. Children can think about how things work.	Students should know the simple working characteristics of material and components. With support children to coordinate actions to use technology, eg: call a telephone number.	Work safely and hygienically. Begin to know about the need for a variety of foods in a diet. Be able to group familiar food products. Know about the Eatwell plate. Begin to know where food comes from. Continue to develop a food and nutrition vocabulary. Cut and mix ingredients with support.



Year 1	Developing planning and communicating ideas: Explain what they are making and which materials they are using. Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. Select materials from a limited range that will meet the design criteria. Select and name the tools needed to work the materials. Working with tools, equipment, materials and components to make quality products: Use a range of materials to create models.	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 - Make their design using the appropriate techniques. - With help measure, mark out, cut and shape a range of materials. -Use tools safely. -Assemble, join and combine materials and components together using a variety of temporary materials e.g. glue	Start to explore and evaluate a range of existing products: -describe how something works -identify likes and dislikes of theirs and others designs and why - is the product functional? - does it work in relation to the design criteria	Students should know the simple working characteristics of material and components. THe movement of simple mechanism such as levers and sliders Free standing structures can be made stronger, stiffer and more stable such as walls, buttresses, towers and framework e,g, weight bearing structures. 3D textile product can be assembled from 2 identical fabric shape. such as joining fabric shapes together using a variety of techniques including staple and lacing and gluing.	Work safely and hygienically. Understand the need for a variety of foods in a diet. Know about the Eatwell plate. Use the basic principles of healthy and varied diet to prepare dishes. Group familiar food products in different ways (eg: fruit/veg, healthy/unhealthy) Begin to name major food groups. Cut and chop a range of ingredients (cut, chop, mix, peel)
	_	-Use tools safely. -Assemble, join and combine materials and components together using a variety of		shapes together using a variety of techniques including staple and	(car, chep, nin, peor)



Year 2	Developing planning and	-Begin to select tools and	Evaluate their ideas and	Students should know the simple	-Work safely and hygienically.
	communicating ideas:	materials; use vocab to describe	products	working characteristics of	Use the basic principles of healthy
	Use pictures and words to convey	them.	Evaluate against a design	material and components.	and varied diet to prepare dishes.
	what they want to design and	- Measure, cut and score with	criteria		
	make. Communicate ideas through	some accuracy.	<ul> <li>explain what went</li> </ul>	The movement of simple	Cut, peel, grate, chop a range of
	annotated sketches, drawing,	- Use hand tools safely and	well	mechanism such as wheels and	ingredients.
	templates, ICT, mock-ups, using	appropriately.	- suggest	axles.	
	sketchbooks as appropriate.	-Assemble, join and combine	improvements to		Know about the Eatwell plate
	Select appropriate technique	materials and components	their own and others	Free standing structures can be	
	explaining; FirstNextLast	together using a variety of	designs	made stronger, stiffer and more	Understand where a variety of food
	Explore ideas by rearranging	temporary materials e.g. glue	<ul> <li>start to evaluate</li> </ul>	stable such as walls, buttresses,	comes from.
	materials.	and masking tape. In order to	their design as it is	towers and framework e,g, weight	
	Describe their models and	make a product.	in progress	bearing structures using different	
	drawings of ideas and intentions.	-Cut, colour and shape fabric	<ul> <li>identify strengths</li> </ul>	materials.	
	Add notes to drawings to help	to make a simple garment.	and possible changes		
	explanations.	-Use basic sewing techniques.	they would	3D textile product can be	
	Design a product from detailed	-Choose and use appropriate	potentially make	assembled from 2 identical fabric	
	design criteria.	finishing techniques.	Evaluate a range of existing	shape. such as joining fabric	
	Working with tools, equipment,		products	shapes together using a variety of	
	materials and components to		<ul> <li>explain what they</li> </ul>	techniques including stitching.	
	make quality products:		like and dislike about		
	Attach wheels to a chassis using an		the products and why		
	axle.				

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Year 3	Developing planning and	-Select tools and techniques	Investigate and analyse a	Students should know the simple	-
	communicating ideas:	for making their product.	range of existing products	working characteristics of material	-Make healthy eating choices from
	Draw/sketch products to help	-Measure, mark out, score and	- begin to disassemble	and components.	and understanding of a balanced
	analyse and understand how	assemble components with	and evaluate familiar		diet.
	products are made.	more accuracy.	products	Across keystage 2 pupils should know	-Measure and weigh ingredients
	Think ahead about the order of	- Work safely and accurately	Evaluate their ideas and	<ul> <li>how to use learning from</li> </ul>	appropriately.
	their work and decide upon tools	with a range of simple tools.	products against the design	science to help design and	-Work safely and hygienically.
	and materials.	- Think about their ideas as	criteria	make products that work.	Follow instructions/recipes.
	Record and plan by drawing	they make progress and be	- explain what they	<ul> <li>How to use learning from</li> </ul>	Join and combine a range of
	(labelled sketches) or writing.	willing to change things if this	changed, which made	mathematics to help design	ingredients to create a healthy dish.
	Communicate ideas through	helps them improve their work.	their design better	and make products that	Begin to understand the food groups
	discussion and add notes to	-Measure, tape or pin, cut and	<ul> <li>how well does it meet</li> </ul>	work.	on the Eatwell Plate.
	drawings to help explanations.	join fabric with some accuracy.	the original design	<ul> <li>THe materials have both</li> </ul>	
	Design innovative, functional,	-Using finishing techniques,	criteria	functional properties and	
	appealing products that are fit for	strengthing and improve the		aesthetics quality.	
	purpose that are aimed at	appearance of their product	Consider the views of others	<ul> <li>materials can be combined</li> </ul>	
	particular groups or individuals.	using a range of equipment	to improve their work	and mixed to create more	
	Working with tools, equipment,	including ICT.	<ul> <li>take on constructive</li> </ul>	useful characteristics.	
	materials and components to		criticism and begin to	<ul> <li>THah mechanical and</li> </ul>	
	make quality products:		incorporate their	electrical systems have an	
	Make structures more stable by		peers ideas, to	imput process and output.	
	giving them a wide base.		improve their design	<ul> <li>the correct technical</li> </ul>	
			-	vocabulary for the project	
			Identify some great designers	they are undertaking.	
			and how their products have	People should know:	
			influenced the world	<ul> <li>how mechanical create</li> </ul>	
			<ul> <li>who designed and</li> </ul>	movement such as pneumatic	
			made existing	systems.	
			products	<ul> <li>how to make strong flexible</li> </ul>	
			- when were these	structures such as shell	
			products designed	structures.	
			and made	<ul> <li>single fabric shape can be</li> </ul>	
				used to make a 3D textiles	
				product.	



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Year 4	Generate, develop, model and	-Select tools and	Investigate and analyse a range of existing	Students should know the simple	Personal Hygiene
	communicate their ideas through	techniques for making	products	working characteristics of material and	Measure and weigh
	discussion , annotated sketches,	their product.	- be able to disassemble and evaluate	components.	ingredients appropriately.
	cross-sectional and exploded	-Measure, mark out, cut	familiar products		
	diagrams, prototypes, pattern	and shape a range of	<ul> <li>are the materials used recyclable</li> </ul>	Across key stage 2 pupils should know	Analyse the taste, texture,
	pieces and computer-aided	materials using	Evaluate their ideas and products against	<ul> <li>how to use learning from</li> </ul>	smell and appearance of a
	design.	appropriate tools,	their own design criteria	science to help design and	range of foods from
		equipment and	<ul> <li>how will they check if their design is</li> </ul>	make products that work.	different countries and
	Use research and develop design	techniques.	successful?	<ul> <li>How to use learning from</li> </ul>	cultures.
	criteria to inform the design of	- Join and combine	<ul> <li>carry out appropriate tests</li> </ul>	mathematics to help design	-Work safely and
	innovative, functional, appealing	materials and component	<ul> <li>start to evaluate their work by</li> </ul>	and make products that work.	hygienically.
	projects that are fit for purpose	accurately in temporary	referring to their design criteria	• THe materials have both	Understanding food waste
	aimed at particular individuals or	and permanent ways.	both during and at the end	functional properties and	and recycling.
	groups.	- Sew using a range of	- evaluate in relation to appearance	aesthetics quality.	Health and safety in the
		different stitches,	and functionality	<ul> <li>materials can be combined and</li> </ul>	kitchen
	Select from and use a wider	weave and knit.		mixed to create more useful	
	range of tools and materials and	-Measure, tape or pin,		characteristics.	
	components, including	cut and join fabric with	Consider the views of others to improve their	• THah mechanical and electrical	
	construction materials, textiles	some accuracy.	work	systems have an imput process	
	and ingredients, according to	- Use simple graphical	- take on constructive criticism and	and output.	
	their functional properties and	communication	begin to incorporate their peers	<ul> <li>the correct technical</li> </ul>	
	aesthetic qualities.	techniques.	ideas, to improve their design	vocabulary for the project	
	Communicate ideas through			they are undertaking.	
	annotated sketches, drawing,		Identify some great designers and how their	People should know:	
	templates, ICT, mock-ups, using		products have influenced the world	<ul> <li>how mechanical create</li> </ul>	
	sketchbooks as appropriate.		<ul> <li>who designed and made existing</li> </ul>	movement such as levers and	
			products	linkages.	
			- when were these products designed	<ul> <li>how simple electrical circuits</li> </ul>	
			and made	and components can be used to	
			- how well the products achieve their	create functional products.	
			purpose eg material, methods of	• How to program the computer	
			construction	to control their products.	



Year 5	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 Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate.	-Select tools and techniques for making their product. -Measure and mark out accurately. -Use skills in using different tools and equipment safely and accurately. - Cut and join with accuracy to ensure a good quality finish to their product.	Investigate and analyse a range of existing products - how much would the products cost to make - how innovatie they are - how sustainable materials are Evaluate their ideas and products against their own design criteria - continuously check their design as they go along - use their own initiative to check if they need to improve and modify their work - evaluate the appearance and function against their own design criteria Consider the views of others to improve their work	<ul> <li>Students should know the simple working characteristics of material and components.</li> <li>Across key stage 2 pupils should know <ul> <li>how to use learning from science to help design and make products that work.</li> <li>How to use learning from mathematics to help design and make products that work.</li> <li>THe materials have both functional properties and aesthetics quality.</li> <li>materials can be combined and mixed to create more useful characteristics.</li> <li>THah mechanical and electrical systems have an imput process</li> </ul> </li> </ul>	Personal Hygiene . Knife skills explain the terms 'eating seasonally' and 'food miles' the benefits of seasonal vegetables. Join and combine a widening range of ingredients. Select and prepare foods for a particular purpose. Know where and how ingredients are grown and processed. Eat well plate. Health and safety in the kitchen
	_			•	
	sketchbooks as appropriate.	their product.		· ·	
					•
			ernena		kitchen
			Consider the views of others to improve their	• THah mechanical and electrical	
			work	systems have an imput process	
			- begin to seek evaluation from others	and output.	
			- begin to incorporate others ideas in	<ul> <li>the correct technical</li> </ul>	
			to their own designs, to make it	vocabulary for the project	
			more functional	they are undertaking.	
			Identify some great designers and how their	<ul> <li>Pupils should know:</li> <li>how mechanical system such as</li> </ul>	
			products have influenced the world	<ul> <li>now mechanical system such as cams or pulleys and gears</li> </ul>	
			- start to critically evaluate the	create movements	
			quality of designs	<ul> <li>how to program a computer to</li> </ul>	
			- how well do the products meet the	monitor changes in the	
			users needs and wants	environment and control their	
				products.	



Year 6	Generate, develop, model and	-Select appropriate	Investigate and analyse a range of existing	Students should know the simple	Health and Safety in the
	communicate their ideas	tools, materials,	products	working characteristics of material and	kitchen
	through discussion,	components and	<ul> <li>how much would the products cost</li> </ul>	components.	Personal Hygiene
	annotated sketches, cross-	techniques.	to make		Food Hygiene-the 4Cs
	,	-Assemble components to	<ul> <li>how innovatie they are</li> </ul>	Across key stage 2 pupils should know	Sensory testing
	sectional and exploded	make working models.	<ul> <li>how sustainable the end product is</li> </ul>	<ul> <li>how to use learning from</li> </ul>	The Eatwell Guide
	diagrams, prototypes,	-Use tools safely and	Evaluate their ideas and products against	science to help design and	5-a-day message and
	pattern pieces and computer-	accurately.	their own design criteria	make products that work.	government 8 guidelines
	aided design	-Construct products	<ul> <li>evaluate a prototype of their design</li> </ul>	<ul> <li>How to use learning from</li> </ul>	A healthy balanced diet
	Developing planning and	using permanent joining	before making their final work	mathematics to help design	Weighing and Measuring
	communicating ideas:	techniques.	<ul> <li>test and evaluate the final product</li> </ul>	and make products that work.	Traffic-light labelling
	Investigate products/images	-Make modifications as	<ul> <li>consider the use of the product</li> </ul>	<ul> <li>The materials have both</li> </ul>	Knife skills (fruits and
	ro collect ideas and create	they go along.	when selecting materials	functional properties and	vegetables)
	own design criteria.	-Pin, sew and stitch	<ul> <li>make a product which meets all the</li> </ul>	aesthetics quality.	Preparation and techniques
	Sketch and model alternative	materials together to	design criteria	<ul> <li>materials can be combined and</li> </ul>	Cooking methods
	ideas.	make a product.	Consider the views of others to improve their	mixed to create more useful	
		-Achieve a quality	work	characteristics.	Reflecting on own work and
	Develop one idea in depth.	product.	<ul> <li>seek evaluation from others</li> </ul>	<ul> <li>That mechanical and electrical</li> </ul>	how to make improvements.
	Combine modelling and		- begin to incorporate others ideas in	systems have an input process	
	drawing to refine ideas.		to their own designs, to make it	and output.	Food groups
	Plan the sequence of work		more functional	the correct technical	Carbohydrates/ Protein /
	using a storyboard.			vocabulary for the project	Fat/ Vitamins/ Minerals
	Record ideas using annotated			they are undertaking.	
	diagrams.		Identify some great designers and how their	Pupils should know:	
	Working with tools,		products have influenced the world	<ul> <li>how more complex electrical</li> </ul>	
	equipment, materials and		<ul> <li>to critically evaluate the quality of degine</li> </ul>	circuits and components can be used to create functional	
	• •		designs - how well do the products meet the	products.	
	components to make quality		users needs and wants	<ul> <li>how to reinforce and</li> </ul>	
	products:			strengthen a 3D framework.	
	Choose materials based on			<ul> <li>a 3D textile product can be</li> </ul>	
	their functional properties			made from a combination of	
	and aesthetic qualities.			fabric shapes.	
				fubric shupes.	