Design & Technology Pupil Progression

	EYFS By the end of EYFS pupils will have had the opportunity to:	Year 1 By the end of year 1 pupils will have had the opportunity to:	Year 2 By the end of year 2 pupils will have had the opportunity to:	Year 3 By the end of year 3 pupils will have had the opportunity to:	Year 4 By the end of year 4 pupils will have had the opportunity to:	Year 5 By the end of year 5 pupils will have had the opportunity to:	Year 6 By the end of year 6 pupils will have had the opportunity to:
Designing	Explore different materials freely, in order to develop their ideas about how to use them and what to make.	Design purposeful, functional and appealing products for themselves and other users based on design criteria. Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Think of an idea and plan what to do next. Explain to someone else how they want to make their product and make a simple plan before making. Design a product which moves.	Design - purposeful, functional and visually appealing products for themselves and other users based on design criteria. Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate using ICT. Generate own ideas and plan what to do next. Use own ideas to design something and describe how their own idea works. Design a product which moves. Explain why they have chosen specific textiles.	Prove that a design meets a set criteria. Design a product and make sure that it is fit for purpose. Choose a material for both its suitability and its appearance. After collecting information from different sources, including from peers and professionals when designing, develop an idea. Produce a plan and explain it. Persevere and adapt work when original ideas do not work. Communicate ideas in a range of ways, including by sketches and drawings which are annotated. Ensure that culture and society is considered in plans and designs.	Prove that a design meets a set criteria. Design a product and make sure that it is fit for purpose. Choose a material for both its suitability and its appearance. After collecting information from different sources, including from peers and professionals when designing, develop an idea. Produce a plan Explain how a product will appeal to a specific audience explain it. Persevere and adapt work when original ideas do not work. Communicate ideas in a range of ways, including by sketches and drawings which are annotated. Ensure that culture and society is considered in plans and designs.	Explain how a product will appeal to a specific audience. Use market research to inform plans and ideas. Choose a material for both its suitability and its appearance. Develop a range of suitable ideas after collecting information from different sources, including from peers and professionals when designing. Produce a detailed, step-by-step plan. Follow and refine original plans. Communicate ideas in a range of ways, including by sketches and drawings which are annotated. Design a product that requires pulleys or gears. Ensure that culture and society is considered in plans and designs.	Explain how a product will appeal to a specific audience. Use market research to inform plans and ideas. Choose a material for both its suitability and its appearance. Develop a range of suitable ideas after collecting information from different sources, including from peers and professionals when designing. Justify planning in a convincing way. Follow and refine original plans. Communicate ideas in a range of ways, including by sketches and drawings which are annotated. Ensure that culture and society is considered in plans and designs.
Making	Explore different materials freely, in order to develop their	Select from and use a range of tools and equipment to perform practical tasks [for	Select from and use a range of tools and equipment to perform practical tasks [for	Follow a step-by-step plan, choosing the most appropriate equipment, materials and techniques	Follow a step-by-step plan, choosing the most appropriate equipment, materials and techniques	Competently follow a step-by-step plan, using a range of appropriate equipment, materials	Competently follow a step-by-step plan, using a range of appropriate equipment, materials

	ideas about how to use them and what to make. Join different materials and explore different textures. Share their creations, explaining the process they have used.	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. Use own ideas to make something. Make a product which moves. Choose appropriate resources and tools.	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. Use own ideas to make something. Make a product which moves. Choose tools and materials and explain why they have chosen them. Join materials and components in different ways. Measure materials to use in a model or structure.	for a given task. Make a product which uses mechanical components. Work accurately: to measure, to make cuts and to make holes. Know what each tool is used for and how it correctly and safely. Know which tools to use for a particular task and show knowledge of handling the tool. Know which material is likely to give the best outcome. Make a template before making a final version.	for a given task. Work accurately: to measure, to make cuts and to make holes. Know what each tool is used for and how it correctly and safely. Know which tools to use for a particular task and show knowledge of handling the tool. Know which material is likely to give the best outcome. Make a template before making a final version.	and techniques for a given task. Make a product which uses mechanical components. Work accurately: to measure, to make cuts and to make holes. Know which tool to use for a specific practical task and explain why a specific tool is best for a specific action. Know which material is likely to give the best outcome. Make a prototype before making a final version. Make a product that relies on pulleys or gears.	and techniques for a given task. Make a product which uses both electrical and mechanical components. Work accurately: to measure, to make cuts and to make holes. Know which tool to use for a specific practical task and explain why a specific tool is best for a specific action. Know which material is likely to give the best outcome. Make a prototype before making a final version.
Evaluating	Return to and build on their previous learning, refining ideas and developing their ability to represent them. Explain what they have made	Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Describe how something works.	Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Describe how something works.	Know why a model has, or has not, been successful. Evaluate products for both their purpose and appearance. Know how to test and evaluate designed products.	Know why a model has, or has not, been successful. Evaluate products for both their purpose and appearance. Know how to test and evaluate designed	Evaluate product against clear criteria. Evaluate appearance and function against original criteria. Evaluate and suggest improvements for design.	Evaluate product against clear criteria. Evaluate appearance and function against original criteria. Evaluate and suggest improvements for design.

	Talk about how they made it	Explain what went well with their work.	Explain what works well and not so well in the model they have made.	Explain how the original design has been improved.	products. Explain how the original design has been improved.	Explain how to improve a finished model. Present a product in an interesting way Suggest alternative plans; outlining the positive features and draw backs.	Explain how to improve a finished model. Present a product in an interesting way. Suggest alternative plans; outlining the positive features and draw backs.
Technical knowledge	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. Use a range of small tools, including scissors, paintbrushes and cutlery.	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. Make their own model stronger.	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.. Make a model stronger and more stable. Use wheels and axles, when appropriate to do so.	Know how to strengthen a product by stiffening a given part or reinforce a part of the structure. Use a simple IT program within the design.	Know how to strengthen a product by stiffening a given part or reinforce a part of the structure. Use IT, where appropriate, to add to the quality of the product. Links scientific knowledge by using lights, switches or buzzers.	Use knowledge to improve a made product by strengthening, stiffening or reinforcing. Uses more complex IT program to help enhance the quality of the product produced. Links scientific knowledge to design by using pulleys or gears.	Use knowledge to improve a made product by strengthening, stiffening or reinforcing. Know which IT product would further enhance a specific product. Links scientific knowledge by using lights, switches or buzzers. Use electrical systems correctly and accurately to enhance a given product.

Food technology	Make healthy choices about food Know and talk about the different factors that support their overall health and wellbeing: - healthy eating	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from. Describe the ingredients used when making a dish or cake. Know what a healthy and varied diet is.		Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from. Weigh ingredients to use in a recipe. Describe the ingredients used when making a dish or cake. Know what a healthy and varied diet is.		Describe how food ingredients come together. Weigh out ingredients and follow a given recipe to create a dish. Understand the principles of a healthy and varied diet. Know how to be both hygienic and safe when using food. Know how to prepare a meal by collecting the ingredients in the first place. Explain how food ingredients should be stored and give reasons. Understand the difference between a savoury and sweet dish.		Describe how food ingredients come together. Weigh out ingredients and follow a given recipe to create a dish. Understand the principles of a healthy and varied diet. Know how to be both hygienic and safe when using food. Bring a creative element to the food product being designed. Work within a budget to create a meal. Explain how food ingredients should be stored and give reasons. Understand the difference between a savoury and sweet dish.		Describe how food ingredients come together. Weigh out ingredients and follow a given recipe to create a dish. Understand the principles of a healthy and varied diet. Know how to be both hygienic and safe when using food. Bring a creative element to the food product being designed. Work within a budget to create a meal. Explain how food ingredients should be stored and give reasons. Understand the difference between a savoury and sweet dish.		Describe how food ingredients come together. Weigh out ingredients and follow a given recipe to create a dish. Understand the principles of a healthy and varied diet. Know how to be both hygienic and safe when using food. Know how to prepare a meal by collecting the ingredients in the first place. Know how to prepare a meal by collecting the ingredients in the first place. Explain how food ingredients should be stored and give reasons. Understand the difference between a savoury and sweet dish.	
Vocabulary	Picture Drawing Use Experiment Change Make Join Tools Materials Use Materials Use Idea Improve Diet	planning investigating purpose evaluate make design user ideas product project discussion materials criteria plan	Test improve change effective taste texture sturdy neat structure stable strong stronger layers base soft flexible textile fabric	investigating planning design make user purpose design criteria product ideas evaluate function design criteria	flour measuring jug knead shape dough bake measure decorate improve change effective purpose taste texture sturdy	model evaluate prototype annotated sketch functional innovative label drawing function user purpose design spice	columns pediment colonnade aqueduct architecture engineering textile flexible durable running stitch overstitch backstitch garment applique	appealing design brief design criteria evaluating function innovative prototype purpose user aesthetics annotated sketches back stitch blanket	electrical high loud low mechanic-al pitch pluck quiet reinforce sound stiffen strengthe n vibrate vibration	design decisions functionali ty specificati on design brief authentic design specificati on innovative research evaluate	Ingredient s costing mixing topping knead quantities modify adapt rising, knocking back dough yeast elasticity	function innovative design specificati on design brief user purpose design brief design specificati on prototype annotated sketch	electrical motors rotation pulley belt strengthe ni-ng reinforcin g structures materials compone nts stable framewor k motor materials

	Food Healthy	label identify adapt equipment diagram covering template measure edge thin thinner thick thicker heavy heavier light lighter attractive finishing touches decoration	mechanism pivot ingredients healthy carbohydrate fruit & veg protein dairy fat sugar aim layer grip core grate blade	successful diagram label functional purpose appealing develop equipment join running stitch over stitch thread needle eye (needle) knot felt fabric stuffing accurate fixed axle not-fixed axle washer wheel chassis body vehicle roll wood rigid stiff hygiene yeast	neat accurate colourful inviting feel look taste smell structure strong stable balanced base height taut even washers mechanism Hygiene measuring jug knead shape whisk dough roll sugar ingredients healthy carbohydrat e fruit & veg protein dairy fat measure weigh cut chop chopping board baking tray skewer	herb hygiene savoury pastry knead pneumatic pressure closed system syringe tubing		stitch components cutting ergonomics finishing joining materials pattern pieces running stitch shaping template textiles diet healthy hygiene ingredients nutrition raw recipe savoury seasoning smell sweet taste texture utensils varied		user purpose embroider y running stitch cross stitch blanket stitch binca fabric thread motif working drawing right side wrong side	bacteria food hygiene food poisoning decay mould savoury cam lever cogs gears cam mechanis m cam follower oscillati- ng Movemen t linear motion rotary motion off-centre crank handle axle frame structure balanced forces unbalance d forces exploded diagram prototype exert a large force	purpose design process natural synthetic textiles functional decorativ e sewing fabric bunting stitches running stitch cross stitch back stitch basting stitch whip stitch double thread seam lines needles thread pins scrap material buttons scissors needle needle- threader synthetics linen wool cashmere eco friendly aesthetics functional ity import slicing measuring sell by use by frying serving boiing	health and safety electrical compone nt model mock-up improvem e-nts design proposal criteria rotation spindle axle drive belt pulley electric motor speed framewor k horizontal vertical electric circuit switch gearing up or down computer control mechanis m Mesoame rica market research plan kilograms /grams Litres millilitres spice texture taste (including 5 senses) cultural difference s undercoo

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