Progression in Design & Technology							
	EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Vocabulary: Structures, systems and mechanisms:	Cut, snip, pierce, move, parts, design, make, improve	Cut, fold, join, fix, weak, strong, work, design, make, improve, purpose	Wheel, axel, fixed, free, design, make, cutting, joining, hacksaw, vice, dowel, body, cab, evaluate	Shell, structure, net, marking out, material, joining, three dimensional, stiff, process, user	Loose pivot, fixed pivot, system, input, output, linear, rotary, reciprocating, innovative, appealing, linkage, oscillating	Reinforce, triangulation, stability, temporary, permanent, prototype, innovation, functional, design brief,	User, fault, toggle switch, insulator, conductor, battery holder, crocodile clip Series circuit, connection, push-to-make switch, push-to-break switch, control box, input device, output device, Parallel circuit, light emitting diode
Vocabulary: Textiles	Sew, fabric, needle, thread, Binca	Mark out, join, decorate, fabric, template, designer	Quality, suitable, features, dye, stitch, needle, fray, sew	Function, running stitch, felted, woven, knitted, seam, spun, decorative, strengthen, stiffen, reinforce	Pattern, prototype, aesthetics, seam allowance, pinning, embroidery, back stitch, cross stitch,	Specification, tacking, pinking shears, hem, reinforce, stem stitch, blanket stitch, tie dye	Applique, innovation, functionality, authentic, chain stitch, satin stitch, embellish

					sustainable, renewable		
Vocabulary: Food Technology, Cooking and Nutrition	Fruit, vegetables, healthy, chop, safe, clean,	Fruit, vegetables, soft, juicy, crunchy, sticky, hard, slicing, cutting, squeezing, healthy diet, choosing, ingredients, planning, tasting,	Smooth, sharp, crisp, sour, seed, pip, flesh, skin, core, peeling, arranging, Eatwell plate, peeling, grating	Texture, taste, appearance, hygienic, edible, grown, reared, caught, frozen, tinned, processed, whisk, spatula, handling, preparing, fresh	Preference, greasy, moist, fresh, savoury, seasonal, harvested, claw grip, bridge grip	carbohydrate, sugar, fat, protein, vitamins, nutrients, savoury, beat, combine, fold, rubbing in, fairtrade	yeast, dough, wholemeal, unleavened, gluten, allergy, intolerance, savoury, seasonality, knead, prove
Design	Discuss what they can see about a product- what colour, texture, moving parts they can see Look at existing products and say what they like about it	Discuss what makes existing products successful e.g. 'This one is good because…' Draw on their own experience to help generate ideas Suggest ideas and explain	Look at existing products and discuss the positives and negatives about them Generate ideas by drawing on their own and other people's experiences Develop their design ideas through	Look and existing products, identifying positives and negatives and discuss how they will apply these findings into their own designs. Generate ideas for an item considering its purpose and	Evaluate existing products and identify criteria that can be used for their own designs Generate ideas, considering the purposes and users for which they are designing	Use results of investigations when developing design ideas Create more detailed design criteria based on evaluation of existing products, purpose and user. Children should have the chance to	Use results of investigations and information sources, when developing design ideas Develop a design specification Explore, develop and communicate aspects of their

		what they are going to do Use drawings to show what they are going to do Model their ideas in card and paper	discussion, observation , drawing and modelling Identify a purpose for what they intend to design and make Make simple drawings and label parts	the user/s and as a class, identify simple design criteria Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas Make drawings with labels including materials when designing	Explore, develop and communicate design proposals by modelling ideas and testing different materials and processes Create step-by-step plans of what needs to be done including materials and processes. Discuss alternative methods of making, if the first attempts fail.	choose their own user group and purpose, where appropriate. Explore, develop and communicate design proposals by modelling ideas and testing different materials and processes, troubleshooting and adapting processes where necessary Develop a clear idea of what has to be done, planning how to use materials,	design proposals by modelling their ideas in a variety of ways Plan the order of their work, choosing appropriate materials, tools and techniques and planning alternative methods for parts of their plan that they think may fail Make labelled drawings from multiple different views showing specific features

						equipment and processes, and suggesting their own alternative methods of making if the first attempts fail. Make labelled drawings from two different views showing specific features	
Make	Make their design using techniques taught, explored and discovered With help, draw around, cut, pierce, chop, and combine materials	Make their design using techniques suggested by the teacher With help measure, mark out, cut and shape a range of materials	Begin to select tools and materials, using accurate vocabulary to name and describe them Measure, cut and score with some accuracy	Select tools and techniques for making their product Think about their ideas as they make progress and be willing to change things based on adult suggestions if	Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate	Select appropriate materials, tools and techniques based on past experience as well as techniques recently learned	Select appropriate materials, tools, components and techniques, drawing on a range learned across KS2. Assemble components

		Use tools e.g. scissors and a hole punch safely Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape	Use some hand tools safely and appropriately with teacher support Assemble, join and combine materials in order to make a product With teacher guidance, use simple finishing techniques to improve the appearance of their product	this helps them improve their work Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools Use simple finishing techniques to improve the appearance of their product	tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Think about their ideas as they make progress and change as they go if necessary in order to improve their work Choose and use appropriate finishing techniques to improve the appearance of their product	Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Weigh and measure accurately Cut and join with accuracy to ensure a good-quality finish to the product Use finishing techniques, strengthen and improve the appearance of their product using a range of equipment	make working models Make modifications as they go along Use tools safely and accurately Construct products using permanent joining techniques Suggest which finishing techniques would be appropriate and use them to improve the appearance of the finished product

Evaluate	Evaluate their product by discussing what they like or found difficult. Listen to other children about what they like about a product and say why	Evaluate their product by discussing what they think works well. Evaluate their product by asking questions about what they have made, how they have gone about it what they like and dislike about their work	Evaluate their product by discussing how well it works in relation to the purpose and what the planned from looking at existing products. E.g. 'You said it was important that your model would stand up on its own – How well does yours do that?' Evaluate products after making, identifying strengths and weaknesses and identifying what they have learned that	Evaluate their product against original l design criteria e.g. how well it meets its intended purpose Relate this evaluation to existing products – how well does your work compare to the existing products that we looked at?	Evaluate their work both during and at the end of the assignment Evaluate their products carrying out simple tests Refer back to original designs and evaluation of existing products when evaluating work	Evaluate their product against the original design criteria and plans, revisiting these regularly throughout the making process Evaluate their products carrying out appropriate tests Evaluate work personally and seek evaluation from others	Evaluate the products against the original design specification, identifying strengths and areas for development throughout the making process as well as at the end. Plan tests in order to check how successful a product is and carry these out. Act upon this evaluation where necessary, making some improvements after the

			they will use in future work				making process is complete.
Technical Knowledge: Structures, systems, and mechanisms	**Structures, Systems and Mechanisms:** To explore how mechanisms move and work. Exploring everyday objects to find mechanisms To know how to join some materials To know the names of 2D and 3D shapes when building and designing structures	**Structures, Systems and Mechanisms:** To explore how to make freestanding structures stronger, stiffer and more stable To know how to join some simple materials To know a simple order of making a structure To know the name of simple 2D shapes and	**Structures, Systems and Mechanisms:** To know what wheels, axels and axel holders are To know the difference between fixed and free moving axels To know simple methods to fix wheels and axels to a product To know the names of some simple tools	**Structures, Systems and Mechanisms:** To know more sophisticated methods for stiffening/strengthening structures To know what a net is To know the names of 3D shapes To know which tools are appropriate for cutting and scoring materials	**Structures, Systems and Mechanisms:** To know the difference between a fixed and loose pivot To know how to use lever and linkage mechanisms To know the difference between inputs and outputs To know how to increase accuracy when measuring, marking out	**Structures, Systems and Mechanisms:** To know how to stiffen, strengthen and reinforce a range of 3-D frameworks To know which materials are best suited to stiffen and reinforce by selecting them due to their properties To know which shapes are the strongest and will support the most	**Structures, Systems and Mechanisms:** To know how to incorporate simple self-made switches in a circuit To know how to test components in more complex circuits (To know how simple switches can be made To know how to assess faults in their own

	To know some suitable objects and materials for building structures	relevant 3D shapes (GD) To know some strong/stiff structures (i.e. climbing frame, tower) To know what materials are useful for strengthening or stiffening structures and why this is To know some simple facts about an important structural engineer (i.e. Isambard Kingdom Brunel)	and their purpose To know simple commercial products that use wheels and axels to move To know the difference between pulling and pushing forces To know which materials are best used for particular components (i.e. rubber covered wheels might provide more grip than plastic wheels)	To know how to test a material's strength To know why engineers use certain structures for certain purposes To know how engineers solve design problems i.e. building Burji Khalifa in Dubai To know some simple facts about more than one structural engineer (i.e. IKB, Gustavo Eiffel, Peter Rice, Fazlur Khan	and cutting (i.e. measure in mm rather than cm or inches) To know technical vocabulary relevant to the project (see vocabulary above) To know what a design brief is To know where levers and linkages are used in commercial products or industry To know why levers are used to lift loads	weight in a structure To know how to use a range of tools i.e. junior hacksaws, clamps, bench hooks, hand drills safely To know why engineers use complex structures for certain purposes To know how engineers solve complex design problems i.e. building Burji Khalifa in Dubai To have a more in depth knowledge of more than one	electrical systems To know how to test components in a simple series circuit To know why materials make good conductors and insulators To know how electrical systems are controlled (i.e. flow charts)

						structural engineer (i.e. IKB, Gustavo Eiffel, Peter Rice, Fazlur Khan	
Technical knowledge: Textiles	To know what fabric is To know the names of simple tools- hammer, needle, saw, knife To know how to embellish a fabric with simple stitching	To know what a template is To know why simple fabrics are chosen based on their properties (i.e. wool is used for a blanket because it is soft and warm) To know how to join two pieces of fabrics using different joining techniques	To know why designers use templates . To know when to use certain fabrics based on their suitability to the product To use simple stitch techniques with some support Develop use of simple decorative	To use templates to make sure that their fabric is the correct shape To know some simple techniques to strengthen, stiffen and reinforce existing fabrics To use simple stitch techniques to join fabrics	To know why designers use patterns and begin to use combinations of templates To know why designers might need to strengthen, stiffen and reinforce existing fabrics To know how to securely join two pieces of fabric together using at least	To know that a 3D textile product can be made from a combination of accurately made pieces. Explore what happens if a pattern isn't used accurately. To know when to combine multiple different fabrics to create a 3D product and	To understand the importance of pattern making and the accurate use of patterns, and be able to cut pieces so that they fit together well to make a pleasing end product. To know when to combine multiple different fabrics to create a 3D

		(gluing, stapling, stitching) Add simple decoration to a garment e.g. gluing sequins To know the names of simple fabric products (i.e. cushion, jumper, blanket) and at least one designer relevant to their project	techniques e.g. gluing or sewing if children are able To know the names of at least one designer of fabric products and a little about their relevance today To know where simple fabrics come from/are made of (i.e. wool from sheep, cotton from cotton plants, hessian made from fibres of jute plant)	Begin to use some simple embroidery or decorative stitching To know at least two relevant designers to their project and take inspiration from one in their work To know how different fabrics are constructed (i.e. woven materials, spun materials, knitted materials)	two different types of stitches To know how/when to use decorative stitches to finish a product To know what a prototype is To know a range of designers who use fabrics in their work To know what constitutes a renewable/sustainable material/fabric	how to stiffen some so that they can be used together To know how to securely join two pieces of fabric together using a variety of different types of stitches To know why designers use prototypes To know how embroidery can embellish a product To know some key dates in the development of fabric and textiles	product and choose which pieces need to be strengthened and stiffened, choosing appropriate techniques. To know when to use particular stitch types (including finishing stitches) To know how applique can embellish a product To create a simple prototype before making To know when to use

							particular stitch types (including finishing stitches) To know some key dates in the development of fabric and textiles and the impact that these have on the clothes we wear or fabrics we use today
Technical knowledge: Food Technology, Cooking and Nutrition	To know how to follow simple health and safety procedures To know how to chop, knead, pour and scoop To know the names of	To know how to use simple cutting tools to prepare soft fruit and vegetables To know how to follow simple health and safety procedures	To know how to prepare simple dishes safely and hygienically, without using a heat source To know how to peel, chop, slice and grate foods.	To use a variety of techniques e.g. chopping, slicing, peeling and grating with more confidence and accuracy To know how to use sensory information to	To know how to chop a wider range of foods using different techniques i.e. claw grip, bridge grip. To know how to measure ingredients using simple	To know some more advance methods for mixing ingredients i.e. rubbing in To know how to measure ingredients using different units	To be confident with a range of cooking methods and begin to understand more advanced techniques e.g. proving dough To know how to measure

	common fruits and vegetables To know that a healthy diet is important for our bodies and minds	To know how to chop and slice foods. To know where a range of fruit and vegetables come from. To know the principles of a varied diet.	To know how to name and sort foods into the 5 groups in The Eatwell Plate To know that everyone should eat at least five portions of fruit and vegetables every day	evaluate a variety of ingredients To know how to combine foods using different utensils i.e. whisk, spatula To know relevant health and safety procedures when handling and preparing foods To know the difference between fresh and processed foods To know whether foods are grown, reared or caught	measures i.e. cup, tsp To know how to use sensory information to evaluate a variety of ingredients To know how to combine foods using different utensils i.e. whisk, spatula, choosing which would be more appropriate To know relevant health and safety procedures when handling and preparing food To know about a range of	To know how to follow a recipe To know how to select appropriate utensils for specific jobs. To compare at least two chefs and their individual styles of cooking To know about fair trade foods	ingredients accurately using different units To know how to follow a recipe and begin to be selective with the recipes they choose To know how to select appropriate utensils for specific jobs, using technical vocabulary. To know how to cut, shape and knead dough To know about a range of chefs and their individual

					fresh and processed foods for their product To know about one key chef and their contribution to healthy eating e.g. Jamie Oliver – healthy schools		styles of cooking To know about organic foods and the impact of these