	Design and Technology Progression Overview								
		Nursery	**Reception / F2**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5**	**Yr6**
Design	**Statutory NC Content**	**Expressive Arts ad Design:** **Birth to 3:** Use their imagination as they consider what they can do with different materials. **3- and 4-Year-Olds:** Develop their own ideas and then decide which materials to use to express them. Explore different materials freely, in order to develop their ideas about how to use them and what to make.	**Expressive Arts ad Design:** **Reception:** Explore, use, and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources, and skills. **Creating with materials:** **ELG:** Share their creations, explaining the process they have used.	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Use research to inform the design of innovative, functional, appealing products that are fit for purpose. Generate, develop, model, and communicate their ideas through discussion, annotated sketches.	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.	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 prototypes, pattern pieces and computer-aided design.	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, exploded diagrams, prototypes, pattern pieces and computer-aided design.

	Skills Content	Listen to and begin to use language of designing and making (join, build, shape, longer, shorter, heavier.) Talk about the patterns around them, such as stripes on clothing, patterns on walls, and rugs. Use informal language like " spotty, pointy, blobs etc"	Design through pictures by drawing their creations Orally explain their creations and the process that they used. Develop problem solving skills around how you and others can solve problems. Work together to share ideas and equipment. Use language of designing and making (join, build, shape, longer, shorter, heavier.)	Begin to understand the development of existing products: Investigate existing products to inform own ideas explain who they are designed for. Begin to draw on their own experience to help generate ideas and research conducted on criteria. Start to suggest ideas and explain what they are going to do based on criteria given to them. Communicate with others about how they want to construct their product	Begin to understand the development of existing products: Explain what they are for, how they work, what materials have been used. Develop their own ideas from given starting point based on colour, size and shape for their target audience. Start to generate ideas by drawing on their own and other people's experiences. Begin to explain why they chose a certain material for their product	Investigate and analyse how a product works / meets its purpose. Disassemble a product to see how it works. When planning explain their choice of materials and components including function. With growing confidence generate ideas for an item, considering its purpose and the user/s. Create annotated sketches of their designs.	Investigate existing products and explain how they are useful for the desired purpose. Consider and explore the purposes for which they are designing- link with Mathematics and Science. Start to generate ideas, taking account of the ideas of others when designing based on their own design criteria. When planning explain their choice of materials and components according to function and aesthetic. Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail. Consider how to present their product in an interesting way using written form and annotated sketches.	Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Start to generate, develop, model and communicate their ideas through discussion, cross sectional and exploded diagrams, prototypes, pattern pieces and CAD to produce a final design stating the materials used and why and the methods of making to be used. Use results of investigations, information sources, including ICT when developing design ideas.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Show consideration to culture and society in a design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces Convincingly justify their plan to someone else Investigate and analyse how much products cost to make, how innovative products are and how sustainable materials in products are. Carry out research using surveys, interviews, questionnaire and web-based research. Identify the needs, wants, pretences values pf particular individuals and groups. Explan how the key design key designs from D&T have shaped the world around them. Explore pulleys and gears and explore how to strengthen them.

Make		Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
	Statutory NC Content	**Personal, Social and Emotional Development:** **3- and 4-Year-Olds:** Select and use activities and resources, with help when needed. **Understanding the World:** **Birth to 3:** Explore materials with different properties. **3- and 4-Year-Olds:** Explore collections of materials with similar and/or different properties. Explore how things work. **Physical Development:** **Birth to 3:** Develop manipulation and control. Explore different materials and tools. **3- and 4-Year-Olds:** Use large-muscle movements to …paint and make marks. Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors. **Expressive Arts ad Design:** **Birth to 3:** Explore paint…. using brushes and other tools Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Make simple models which express their ideas. **3- and 4-Year-Olds:** Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.	**Physical Development:** **Reception aged children:** Progress towards a more fluent style of moving, with developing control. Develop their small motor skills so that they can use a range of tools competently, safely, and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. **Fine Motor Skills:** **ELG:** Use a range of small tools, including scissors, paintbrushes. **Expressive Arts ad Design:** **Reception:** Explore, use, and refine a variety of artistic effects to express their ideas and feelings. Create collaboratively, sharing ideas, resources, and skills. **Creating with materials:** **ELG:** Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	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 and ingredients, according to their characteristics.	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing] 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.	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing] Select from and use a wider range of materials and components, including construction materials and ingredients, according to their functional properties and aesthetic qualities.	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 and ingredients, according to their functional properties and aesthetic qualities.	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.

	Skills Content	**General skills**	Explore materials and a variety of small and large tools and their properties. Make models using different building materials. Make a creation with different materials. Join and shape materials Join to put, bring, or fasten together. Model a small exact copy of something, often used as a guide to making the thing in full size.	Explore, experiment and use small tools and develop fine motor skills to use tools more accurately. Begin to use materials according to their properties Join, cut and shape materials	Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. Begin to make their design using appropriate techniques (for example cutting, shaping and joining) Be able to join things (materials/ components) together in different ways Assemble to construct by joining the parts of.	Begin to select tools and materials; use correct vocabulary to name and describe them. Start to choose and use appropriate finishing techniques based on own ideas.	Select a wider range of tools and techniques for making their product i.e. construction materials and kits, textiles, food ingredients, mechanical components and electrical components. Explain their choice of tools and equipment in relation to the skills and techniques they will be using. Select the most appropriate tools and techniques to use them accurately and safely for a given task Try alternative ways of fixing something if the first attempt is not successful	Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Start to join and combine materials and components accurately in temporary and permanent ways. Persevere with their product even though their original idea might not have worked	Select appropriate materials, tools and techniques e.g. 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.	Confidently select appropriate tools, materials, components and techniques and use them. Use tools safely and accurately. Assemble components to make working models. Demonstrate when make modifications as they go along. Use finishing techniques to strengthen and improve the appearance of their product
		Textiles		Threading to create repetitive patterns.		Draw and label a design. Use a pre-made template to make a product. Threading a needle. Use basic sewing techniques (running stitch) Join fabric using a running stitch, glue and tape to see which is the strongest.	Recap running stitch, begin to use back stitch and blanket stitch to see which is strongest for their product. Start to measure, tape or pin, cut and join fabric with some accuracy. Teach different fastening techniques Velcro and magnet. Attempt to make sure that their product looks attractive			Create and use a paper pattern to make a product. Recap running, back and blanket stitch and teach sewing buttons on. With confidence pin, sew and stitch materials together to create a product. Combine fabric to make a high-quality product for a purpose
		Structure	Provide items for children to practice grasp and hold techniques. Begin showing children how to use one handed tools such as scissors, hammers and screw drivers.	Use glue and masking tape to join materials together.	Draw label and talk about their design for a model Begin to build structures, exploring how they can be made stronger and more stable. Select from a range of tools to join effectively. Explore which joins are strongest (Flange, tabs, slots, fold, hinge and L Brace).		Measure, mark out, cut, score and assemble components with more accuracy. Work accurately to make cuts and holes – e.g. to measure and then use equipment to cut.	Understand how to reinforce and strengthen a 3D framework. Measure carefully and show initiative to check so as not to make mistakes		Construct products using permanent joining techniques. Know how to reinforce and strengthen a 3D framework.

		Mechanical Systems	Provide mechanical equipment for children to play with and investigate like wind up toys, pulleys and cogs.	Use glue and masking tape to join materials together.	Select from a range of tools and equipment to join safely. Start to assemble, join and combine materials in order to make a product – e.g. a card / book Make a product which moves. Begin to use simple finishing techniques to improve the appearance of their product.	Select from a range of materials. Measure materials to use in a model or structure to create movement. Measure by comparison. Attach features to a vehicle (e.g. an axel and wheels)	Create a product with appropriate text and decoration. Use annotated sketches and prototypes to develop a model.	Cut, shape and join accurately. Use a glue gun with close supervision (one to one		To use a range of tools safely and accurately. Assemble components to make a working model. Use finishing techniques to strengthen and improve the appearance of their product.
		CAD / programming							Know how to use Tinkercad to design and create an item	

		Nursery	**Reception / F2**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5**	**Yr6**
Evaluate	**Statutory NC Content**	**Physical Development:** **3- and 4-Year-Olds:** Choose the right resources to carry out their own plan. **Expressive Arts ad Design:** **3- and 4-Year-Olds:** Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them.	**Expressive Arts ad Design:** **Reception:** Return to and build on their previous learning, refining ideas and developing their ability to represent them. **Creating with materials:** **ELG:** Share their creations, explaining the process they have used.	Explore and evaluate a range of existing product. Evaluate their ideas and products against design criteria.	Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria. Understand how key events and individuals in design and technology have helped shape the world.	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 how key events and individuals in design and technology have helped shape the world.	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 how key events and individuals in design and technology have helped shape the world.	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 how key events and individuals in design and technology have helped shape the world

	Skills Content	Begin to talk about what they see, using a wide vocabulary. Answer questions Begin to talk about the differences between materials and changes they notice	**Quality adult interac4ons will support children to:** Respond to others' ideas and feelings during continuous provision. Explain their ideas and the process they used to create. Answer questions and make predictions Be confident to speak to others about their own opinions. Take account of others' ideas and work together in collaboration. Express what they like and do not like and why Say what they like/dislike about their own creations	When looking at existing products explain what they like and dislike about the Products. Begin to evaluate their product by discussing what they like and dislike about it and if their design worked.	Look at a range of existing products explain what they like and dislike about Products and why. With confidence talk about their ideas Evaluate their work against their design criteria – does it work how they planned? Begin to verbally evaluate their products **as they are developed,** identifying strengths and possible changes they might make next time.	Begin to disassemble and evaluate familiar products and consider how they work / meet their design brief. Begin to evaluate how the key designs of individuals in design and technology have helped shape the world. Evaluate their work both during and at the end of the assignment, considering both appearance and the way it works. Discuss how well it meets its intended purpose and if the materials you selected work as you had planned?	Disassemble and evaluate familiar products and consider the views of others to improve them. Evaluate how the key designs of individuals in design and technology have helped shape the world. Evaluate their products carrying out appropriate tests. (Trial and error) Suggest some improvements and say what was good and not so good about their original design	Evaluate appearance and functionality against original criteria consider why they selected specific materials were / are used. Evaluate how the key designs of individuals in design and technology have helped shape the world. Evaluate a product against the original design specification and by carrying out tests. Explain how they would improve their product. Begin to seek evaluation from others.	Record their evaluations and improvements using drawings with labels.

		Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Technical Knowledge	Statutory NC Content	**Understanding the World:** **Birth to 3:** Explore materials with different properties. **3- and 4-Year-Olds:** Explore collections of materials with similar and/or different properties. Explore how things work. **Physical Development:** **Birth to 3:** Explore different materials and tools. **Expressive Arts ad Design:** **3- and 4-Year-Olds:** Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, to develop their ideas about how to use them and what to make.	**Expressive Arts ad Design:** **Reception:** Return to and build on their previous learning, refining ideas and developing their ability to represent them. **Creating with materials:** **ELG:** Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.	Build structures, exploring how they can be made stronger, stiffer, and more stable. Explore and use mechanisms [for example, ([levers, sliders], in their products.	Build structures, exploring how they can be made stronger, stiffer, and more stable. Explore and use mechanisms [for example, wheels, and axles], in their products.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [pulleys]	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use electrical systems in their products [more complex series circuits incorporating switches and motors]	Understand and use mechanical systems in their products (levers and linkages) Apply their understanding of computing to program, monitor and control their products.	Apply their understanding of computing to program, monitor and control their products. Understand and use electrical systems in their products (more complex series circuits incorporating switches, bulbs, buzzers, and motors)
Technical Knowledge	Skills Content	Explore materials and their properties. Explore similarities and differences between properties. Explore materials to develop ideas.	Explore materials and their properties with more accuracy. Explore materials, tools and techniques experimenting with colour, design, texture, form, and function. Use tablets or computers to explore cause and effect use of electrical items.	Explore how to make simple slider Explore how to make a simple lever		Recall how to make simple levers, sliders developing knowledge to make more complicated mechanisms. Explore how to make linkages	Know how electrical circuits and components can be used to create a product. Recap making a basic electrical circuit. (Drawing on science knowledge) Explore adding more components to their electrical circuit (buzzer, light, pressure switch.)	Investigate how CAD is used in the real world. Evaluate a range of different products Create their own design criteria.	Apply measurements accurately to scale, according to design plans, ensuring precision. Select the material carefully considering the intended use of product the aesthetics and functionality appearance Evaluate and demonstrate that their product is strong and fit for purpose. Refine and further improve their product. Identify and address their own design problems during the construction process. Refine products after testing .

		Structure			Make a structure/model using different materials. Explore with different materials how their structure/model can be made stronger/stiffer/more stable. Select from a range of tools and equipment to cut and join safely.	Identify how to make their structure/model can be made stronger/stiffer/more stable.	Make strong structures effectively to build a more complex structure. Join materials and begin to work accurately to make cuts and holes Use annotated sketches and prototypes to develop model and communicate their ideas Create and use levers and linkages to create movement	Measure and join materials effectively to build a more complex structure. Experiment with a range of techniques to increase stability in their structure.		Reinforce and strengthen a 3D frame
		Mechanical Systems			Begin to use levers or slides Create and use levers or sliders to create movement	Explore and use mechanisms within their product. Begin to understand how to use wheels and axles	Explore and use mechanical systems within their product.	Use annotated sketches and prototypes to develop model and communicate their ideas . Know how electrical circuits and components can be used to create functional products)	Use tinkerCAD to design and produce a digital design to print for sale	Understand how to use a pulley system

Cooking and Nutrition		**Nursery**	**Reception / F2**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5**	**Yr6**
	Statutory NC Content	**Physical Development:** **Birth to 3:** Explore different materials and tools. **3- and 4-Year-Olds:** Make healthy choices about food and drink.	**Physical Development:** **Reception aged children:** Develop their small motor skills so that they can use a range of tools competently, safely, and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. **Fine Motor Skills:** **ELG:** Use a range of small tools, including cutlery.	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from	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 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	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.	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.

	Skills Content	Investigate and Evaluate Activities	Draw attention to changes in amounts, for example, by adding more bricks to a tower, or eating things up	Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure Narrate your own decisions about healthy foods, highlighting the importance of eating plenty of fruits and vegetables.	**Charity- Helping hand:** Investigate a range of existing products and explain what they like and dislike about the product That everyone should eat at least five portions of fruit and vegetables every day How to use techniques such as cutting, peeling and grating To know that all food comes from plants or animals	**Let's get growing:** Investigate a range of existing products and explain what they like and dislike about the product with reasons. Begin to evaluate how the key design in design technology have helped shape the world To Know that food has to be farmed, grown elsewhere (e.g. home) or caught	**Can I take your order?:** Investigate a range of familiar products and consider how they work/meet design criteria. Evaluate how the key designs of individuals in design(chefs) and technology have helped shape the world To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Guide To know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world	**Magnificent Mexico:** Investigate a range of familiar products disassemble and consider the views of others to improve them Evaluate how the key designs of individuals in design and technology have helped shape the world To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Guide	**Gift of giving:** Investigate existing products and evaluate appearance and functionality against criteria and consider why the specific materials are used Consider why selected materials have been used That seasons may affect the food available How food is processed into ingredients so that it can be eaten or used in cooking	**Were the Vikings always vicious?:** Investigate existing products and evaluate appearance and functionality against criteria and consider why the specific materials are used That seasons may affect the food available
		Focused Task		Offer children activities to develop and further refine their small motor skills. Suggestions: • pouring, • stirring Observe and interact with natural processes, such as ice or chocolate melting / warming food	Teach hygiene rules. Wash hands tie hair back wear apron Teach cutting skills bridge hold. Evaluate existing fruit salads taste	Teach safe grating skills. Techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking Evaluate existing pizzas – appearance, taste,	Evaluate existing vegan burgers - appearance - taste, texture	Teach cutting skill – claw/bridge model how to create different texture by cutting/ dice /slice /cube. Evaluate existing dips - appearance - taste, texture, healthy option	Teach Rubbing in method Rolling (Make refrigerator biscuit) http://www.biscuit.org.uk/recipe/refrigerator.htm Evaluate existing biscuits – appearance, taste, texture, aroma and suitability for focus audience.	Teach Recap rubbing in method Rolling and using cutters Evaluate existing savoury oatcakes – appearance, taste, texture, suitability for target audience.
		Design and make		Regularly review the equipment for children to develop their small motor skills. Is it appropriate for the different levels of skill and confidence of children in the class? Is it challenging for the most dexterous children?	Use given design criteria to design a product. Draw, label and talk about their design. Select from a range of tools and equipment to perform a practical task.	Use given criteria and own experiences to design a product Draw and label their design and list equipment/materials needed Select from a range of tools and materials Use correct vocabulary to name and describe them	Create their own design criteria to design a product Use annotated sketches and research to create a design	Generate realistic ideas, focussing on the needs of the user (consider food allergies) Know that that recipes can be adapted to change the appearance, taste, texture and aroma	Generate ideas, drawing on research. Make decision based on restraints – IE cost / resources / time use techniques that involve a number of steps	Generate ideas, drawing on research. Make decision based on restraints – IE cost / resources / time use techniques that involve a number of steps

	Nursery Outcomes	**F2 Outcomes**	**Year 1 Outcomes**	**Year 2 Outcomes**	**Year 3 Outcomes**	**Year 4 Outcomes**	**Year 5 Outcomes**	**Year 6 Outcomes**
Structures	Fold paper to make animals.		Gingerbread Houses Strong Structures	Plastic Sea Creatures		Create a display case Chocolate shell		
Sewing				Plaster Pouches	Trinket Pouches			Design and create their own piece of ecofriendly fashion using old clothes.
Technical Knowledge		Make a wheeled item for travel	Moving Picture / Moving book. Catapult	Wheeled Trolley	Moving Books	Electrical Games		Card Alarms Egyptian Pulley
Food and Nutrition		Soup	Fruit Salad using exotic fruit.	Pizzas using home grown tomatoes for decoration	Vegan Stew (26-27)	Salsa	Create biscuits to sell to parents.	Oat Cakes
CAD							Rocket Key ring	