Ursuline Catholic Primary School
Progression of Skills: D&T

3-4	Children in Reception	ELG
PD Choose the right resources to carry out their own plan Use one-handed tools and equipment, for example, making snips in paper with scissors. EAD 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. Join different materials and explore different textures. UTW Use all their senses in hands-on exploration of materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary Explore how things work.	PD Develop their small motor skills so that they can use a range of tools and equipment competently, safely and confidently. eg using scissors EAD Explore, use and refine a variety of artistic effects to express their ideas and feelings.safely use and explore Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills C&L Use new vocabulary in different contexts. PSED Show resilience and perseverance in the face of challenge Maths Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it.	PD Use a range of small tools, including scissors, paintbrushes and cutlery. Begin to show accuracy and care when drawing. EAD Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. C&L Offer explanations for why things might happen, making use of recently introduced vocabulary

	Key Stage 1 – Year 1 & 2		Key Stage 2 – Year 3, 4, 5 & 6			
(NC)Design	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 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 and exploded diagrams, prototypes, pattern pieces and computer aided design			
Design Understanding contexts, users and purposes	*Begin to think about the purpose of their design and the intended user.* *Begin to explore materials, make templates and mock ups.*	*State the purpose of the design and the intended user.* *Explore materials, make templates and mock ups.*	*Begin to gather information about the needs and wants of individuals and groups.* *Begin to develop their own design criteria and use these to inform their ideas.* *Begin to research designs.*	*Gather information about the needs and wants of individuals and groups.* *Develop their own design criteria and use these to inform their ideas.* *Research designs.*	*Carry out research using surveys, interviews, questionnaires and web based resources.* *Identify the needs wants and preferences and values of individuals and groups.* *Develop a simple design specification to guide their thinking.*	*Recognise when their products have to fulfil conflicting requirements.*

Design generating developing, modelling and communicating ideas	*Begin to generate own ideas for design by drawing on own experiences or from reading*	*Generate own ideas for design by drawing on own experiences or from reading*	*Share and clarify ideas through discussion.* *Model their ideas using prototypes and pattern pieces* *Use annotated sketches, cross sectional drawings and diagrams*		*Generate innovative ideas drawing on research* *Develop prototypes.* *Use computer-aided design CAD*	*Make design decisions taking account of constraints such as time cost and resources.*
(NC)Make	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		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			
Making -practical skills and techniques	*Follow safety procedures with support.* *Begin to use and make own templates.* *Begin to measure, mark out, cut out and shape materials and*	*Follow procedures for safety.* *Use and make own templates.* *Measure, mark out,*	*Follow procedures for safety, with a wider range of tools/materials.* *Measure, mark out,*		*Accurately measure to the nearest cm/mm mark out, cut out and shape materials and components*	

	components. (supported if needed) *Begin to assemble join and combine materials and components (supported if needed)* *Use simple fixing materials e.g. temporary - paperclips/tape permanent- glue/ staples* *Use finishing techniques (inc those from art & design)*	*cut out and shape materials and components.* *Assemble join and combine materials and components.* *Explain reasons for choice of fixing materials* *Think carefully about finishing techniques. (inc those from art & design)*	*cut out and shape materials and components with some accuracy.* *Assemble join and combine materials and components with some accuracy.* *Apply a range of finishing techniques with some accuracy* *Begin to demonstrate a resourcefulness e.g. to make/refinements*		*Accurately assemble, join and combine materials and components* *Accurately apply a range of finishing techniques* *Demonstrate a resourcefulness e.g. to make refinements*	*Refine design and explain reasons for refinement*
Making-planning	*Make a simple plan of their product.* *Choose appropriate materials and components for their product.*	*Plan by suggesting what to do next.* *Select from a range of materials and components according to their characteristics.* *Select from a range of tools and equipment*	*Order the main stages of making.* *Select materials and components suitable for the task*	*Explain their choice of materials and components according to functional properties and aesthetic qualities.*	*Formulate step by step plans as a guide to making*	

	Use a range of tools and equipment safely and correctly.	*(explaining their choices)*	*Select tools and equipment suitable for the task* *Produce detailed lists of tools, equipment and materials they will need*	*Explain their choice of tools and equipment in relation to the skills and techniques they will be using.*		
(NC) Evaluate	explore and evaluate a range of existing products, 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 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			
Evaluate-existing product	*Begin to investigate and understand- what products are, who they are for, how they are made and what materials are used.*	*Investigate -what products are, who theyr are for, how they are made and what materials are used*	*Investigate -who designed and made products, where products were designed and made, when products where designed and made and whether products can be recycled or reused.*		*Investigate- how much products cost to make, how innovative products are and how sustainable the materials in the products are.*	
Evaluate-own ideas and products	*Talk about their design ideas and what they are making*	*Make simple judgements about their products and*	*Identify the strengths and weaknesses of their ideas and products*		*Critically evaluate the quality of their design, manufacture and fitness for*	

	Suggest how their products could be improved	*ideas against design criteria* *Evaluate tools materials and components used*	*Consider the views of others, including intended users, to improve their work.*		*purpose of their products as they design and make* *Compare their ideas and products to their original design specification.*	
(NC)Technical Knowledge	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.		apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products(for example gears, pulleys, cams, levers and linkages) understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.			
	Begin to understand about the simple working characteristics of materials and components. *Understand about the movement of simple* ***mechanisms: levers and sliders*** ***Textiles:*** *join pre cut fabric and add features to make a simple* ***puppet.***	*Understand about the movement of simple* ***mechanisms: wheels and axles-****make a* ***beanie vehicle*** *Understand how free standing* ***structures*** *can be made stronger stiffer more stable****-zoo enclosure***	*Understand how the* ***mechanisms of levers and linkages*** *create movement.-* ***Christmas card/toy*** *Know that a simple fabric shape can be used to make a* ***textiles product-*** *with fastenings****-purse***	*Understand how to make stronger, stiffer* ***shell structures.-gift box*** *Understand how* ***cams*** *create movement.-* ***Titanic diorama?-***	*Understand how simple* ***electrical circuits*** *and components can be used to create functional products-****torch*** *Use a computer to aid their design****-CAD emoji***	*Bringing it all together!* ***structures, mechanisms, electrical systems and CAD*** *All the fun of the fair project.* ***Fairground ride***

(NC) Cooking and nutrition	use the basic principles of a healthy and varied diet to prepare dishes and 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 seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
Cooking and Nutrition ***Where food comes from***	*All food comes from plants or animals*	*Begin to understand that food has to be farmed, grown elsewhere (eg home) or caught*	*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*	*Finds out about the ingredients used in dishes, where they come from and how they are produced/ processed.*	*Understand how food is processed into ingredients that can be eaten or used in cooking.* *Is aware of date marks-'best before' and' use by' -on foods and can identify and use these.*	*Understand that seasonality affects the availability of foods and that recipes can be adapted to take this into account.*
Cooking and Nutrition ***Food preparation***	*Name and sort foods into the 5 groups of the eat well plate.* *Prepare simple dishes safely and hygienically, with out using a heat source.* *Use techniques such as cutting and spreading*	*Know that everyone should eat at least 5 portions of fruit and vegetables every day.* *Begin to understand that food ingredients should be combined according to their sensory characteristics.*	*Know that a healthy diet is made up from a variety and balance of different foods and drinks as depicted in the eat well plate.* *Know that recipes can be adapted to change the appearance, taste and texture.*	*Know that to be active and healthy food is needed to provide energy for the body.* *Know that a recipe can be adapted by adding or substituting 1 or more ingredients.*	*Know that different foods contain different substances-nutrients,water and fibre that are needed for health.* *Understand the need for correct storage.* *Measure accurately*	

	Follow instructions given one at a time by an adult. *Carryout instructions with support*	*Follow a simple recipe supported by an adult.* *Carryout instructions with a little support*	*Follow a simple recipe with guidance from an adult.* *Carryout instructions independently*		*Follow a simple recipe independently.* *Carryout modifications to recipes*	