



Design Technology Progression Document

	EYFS	KS1	LKS2	UKS2
<p><u>Design, Make, Evaluate</u></p> <p>This should run through every unit of DT taught in every year.</p>	<ul style="list-style-type: none"> Children might look at an example as a starting point for their own making. Children are encouraged to think about what they are going to make before they start making. Children may be asked about what they have made and how they made it. They might be asked what they like about their product or what they want to change. 	<ul style="list-style-type: none"> Children look at and evaluate existing products to see how they work or how they are made. Children come up with their own ideas for the products they are going to make. <u>They draw pictures of what they want their product to look like and they add notes and labels to make these pictures clearer.</u> <u>Children are able to talk about their work as it progresses.</u> They can say what materials and tools they are using and explain why they have chosen these. <u>When they have finished their product, they evaluate it, saying what</u> 	<ul style="list-style-type: none"> Children investigate existing products as a starting point for their own product. They research the needs of the user. <u>Children develop more than one design.</u> They record their plan using annotated sketches and computer aided design where appropriate (Tinker Cad). They may make prototypes of their design. They plan the sequence of work and select the appropriate tools and materials. <u>When making, children are able to select and use appropriate tools accurately.</u> They use appropriate finishing techniques, 	<ul style="list-style-type: none"> Children research and evaluate existing products. They consider user and purpose. Children develop more than one design. They record their plan using annotated sketches, exploded diagrams and cross sectional diagrams <u>They plan the sequence of work and select the appropriate tools and materials from a wide range.</u> Children develop one of their designs in depth. They select and use a range of tools, cutting accurately and safely to a marked line. They refine their product – review, rework/improve.

		<u>they like about it and what they do not like.</u>	<p>considering the aesthetics of their product.</p> <ul style="list-style-type: none"> When they have finished their product, children identify the strengths and weaknesses of their design in relation to the purpose and user. <u>They consider how their product could be improved.</u> 	<ul style="list-style-type: none"> When they have finished their product, children identify the strengths and weaknesses of their design. <u>They discuss how well the product meets the design criteria having tested on/discussed outcomes with the user.</u> They consider how their product could be improved.
<u>Vocabulary</u>	Choose, colour, ideas, cut, make, try, difficult, easy, like, don't like, use, thoughts, feelings	Design, designing, draw, drawing, annotated drawing, labels, purpose, purposeful, user, intended user, template, model, products, develop, combine, assemble, materials, decorations, finish, finishing, tools, hand tools, change, evaluate, compare, improve, improvements. repeat, design criteria, strengths, weaknesses, success	Design, develop, generate, annotated sketches, computer aided design, cross sectional diagrams, exploded diagrams, fit for purpose, innovative, prototypes, select, technique, components, mechanical components, electrical components, stages, process, systematic order, alter, existing products, investigate, analyse	industry, resources, target market, availability, costings, precision, step-by-step plan, manufacture, quality
<u>Food</u> 2 units in every key phase. <i>Cross curricular links with Science (healthy eating/the Eatwell Plate) & Geography</i>	<ul style="list-style-type: none"> Children develop cooking and food preparation skills across a range of activities – pouring, mixing, cutting & shaping playdough etc. (Physical development – Fine 	<ul style="list-style-type: none"> <u>Children learn about food groups e.g. fruit & vegetables and the need for a variety of food in a healthy diet.</u> They learn to work hygienically and safely when preparing food. 	<ul style="list-style-type: none"> <u>Children continue to develop their understanding of the Eatwell Plate and use this to help them to make healthy choices.</u> 	<ul style="list-style-type: none"> <u>Children learn to make more deliberate choices, applying their understanding of the principles of a healthy diet. They select and prepare foods for a particular purpose.</u>

<p>(seasonality, where food comes from, how it is caught, reared and processed.)</p>	<p>Motor Skills & Expressive Arts & Design – safely use and explore a variety of materials, tools and techniques...)</p> <ul style="list-style-type: none"> Children use tools and equipment for food preparation. They take part in baking activities, making sandwiches and spreading butter on toast. 	<ul style="list-style-type: none"> <u>They learn to cut, chop, peel and grate ingredients.</u> They begin to learn about where food comes from. They make healthy fruit platters, kebabs and soup. 	<ul style="list-style-type: none"> They develop an understanding of seasonality. <u>They begin to follow recipes</u>, preparing and cooking food using different techniques. They make fairy cakes and healthy pizzas/sandwiches. 	<ul style="list-style-type: none"> They can demonstrate a good understanding of where food is grown and processed. They prepare, including <u>weighing with scales</u>, and cook a variety of savoury dishes using a range of cooking techniques. They make samosas and salad wraps, nachos and salsa.
<p><u>Food Vocabulary</u></p>	<p>Food, fruit, vegetables, cut, mix, stir, smell, taste</p>	<p>Caught, farmed, grown, animals, plants, (healthy) ingredients, Eatwell Plate, varied diet, food groups, food safety, hygiene , prepare, cut, grate, slice, peel, zest</p>	<p>Balance, balanced diet, varied diet, variety, nutrition, nutritious, hob, oven, bake, whisk, mash, recipe, cooking utensils, menu, savoury, sweet , hygiene procedures, preparation, seasonality, processed, reared</p>	<p>Boiling, frying, scale up, scale down, substitute, aroma, protein</p>
<p><u>Textiles</u></p> <p>KS1 – 1 unit LKS2 – 1 unit UKS2 – 1 unit</p>	<ul style="list-style-type: none"> Children develop sewing skills through threading and weaving activities. 	<ul style="list-style-type: none"> Children learn that materials can be joined in a variety of ways, including sewing. <u>They begin to use a running stitch.</u> Children in KS1 make puppets. 	<ul style="list-style-type: none"> The children develop their ability to use a running stitch, but other stitches are also taught, including back stitch and blanket stitch. <u>Children are taught how to sew a button onto a product.</u> In LKS2 children sew purses. 	<ul style="list-style-type: none"> <u>They use a range of different stitches</u> and they begin to select the most appropriate one for a task. <u>Children develop an understanding of seam allowances.</u> They create and use patterns to make 3D textile products. In UKS2 children make teddy bears.

<p><u>Textiles Vocabulary</u></p>	<p>Colour, fabric, patterns</p>	<p>Textiles, weaving, woven, stitch, stitching, dye, ink, decorative, decoration, detail</p>	<p>Needle, thread, running stitch, sewing technique, joining, textural effects, wax resist</p>	<p>back stitch, blanket stitch, seam allowance, stuffing, create, effect, overlapping, layering, non-traditional fabrics</p>
<p><u>Structures</u></p> <p>KS1 – 1 unit LKS2 – 1 unit UKS2 – 1 unit</p>	<ul style="list-style-type: none"> • Children learn to construct with a purpose. • They are tasked with building bridges, tunnels, towers etc. • Children use construction kits to make different structures. • They are taught to manage risks, developing ideas about stability and strength e.g. how could their tower can be made more stable, how could their bridge be made stronger etc. 	<ul style="list-style-type: none"> • <u>Children learn to join materials in different ways e.g. glue, tape</u> • They learn ways to make structures stronger. • They learn how to make a structure more stable. • They learn how to make some materials stiffer. • They make bridges for pets 	<ul style="list-style-type: none"> • Children create shell and frame structures. • Children learn to strengthen frames with diagonal struts. • <u>They learn to measure and mark accurately to 1 cm.</u> • They make festive photo frames 	<ul style="list-style-type: none"> • <u>Children learn to cut wood, dowel, square section wood accurately to 1mm.</u> • They build frameworks to support mechanisms. • They learn to stiffen and reinforce complex structures. • Children use a hand held drill to drill loose and tight fit holes. • They make a bug house
<p><u>Structures Vocabulary</u></p>	<p>Build, work safely</p>	<p>Build, explore, materials, stiff, strong, stable, structure</p>	<p>Stiffen, strengthen, reinforce, brace, strut, frame</p>	<p>Strengthen, complex structure, reinforce, shell structure, contain, protect, rigid</p>
<p><u>Mechanisms</u></p> <p>KS1 – 2 units LKS2 – 1 unit UKS2 – 1 unit</p>	<ul style="list-style-type: none"> • Children use construction kits, such as Mobilo, Lego and K'Nex, to construct vehicles that move. • They use split pins to make pictures with moving parts. 	<ul style="list-style-type: none"> • They learn how to attach wheels to a chassis using an axle. • They learn how to make things move on a 2D plane (sliders). • <u>They fold, tear and cut paper and card.</u> • <u>They cut along lines: straight and curved.</u> 	<ul style="list-style-type: none"> • <u>Children make levers and linkages from card or other materials.</u> • They explore different ways of making parts of an image move. • Children make storybooks with moving parts. 	<ul style="list-style-type: none"> • Children understand how and why levers, cams, gears and pulleys are used in mechanical products. • <u>Children make cams, gears and pulleys and incorporate these into their products.</u>

		<ul style="list-style-type: none"> Children make Moon Buggies and a moving picture/card 		<ul style="list-style-type: none"> They become a designer of machines!
<u>Mechanisms Vocabulary</u>	Pull, push, slot	Axles, wheels, levers, sliders, bridge, guide, input, output, motion	Pivot, linkage, fastener, input process, output process	Body, cab, cams, gears, chassis, pulleys
<u>Electrical Systems</u> LKS2 – 1 unit UKS2 – 1 unit <i>Cross curricular links with Science (electricity) and Computing (programming, Computer Aided Design, Using ICT to control products)</i>	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Children revisit and revise how to construct a working circuit. They include bulbs and switches in their circuit. <u>They incorporate a working circuit into a product.</u> Children make a torch/nightlight. Children use TinkerCad and a 3D printer to design and print a product. 	<ul style="list-style-type: none"> Children develop their understanding of circuits. They include motors in their circuits. <u>Children use ICT, such as Micro:Bits to programme a product.</u> <u>They use sensors to monitor and control a product.</u> These are incorporated into models and circuits. Children use Spike Lego sets to programme, monitor and control. Children use TinkerCad and a 3D printer to design and print a product. They make a TBC
<u>Electrical Systems Vocabulary</u>	N/A	N/A	bulb , buzzer, circuit, wire, battery, switch, motor	Monitor, control, incorporate