



Livingstone Road
Primary Federation

Together We Can
Learn Laugh Dream Grow

Curriculum

Design Technology—Knowledge & Skills Progression

	EYFS Progression & Skills	Year 1 Progression & Skills	Year 2 Progression & Skills	Year 3 Progression & Skills	Year 4 Progression & Skills	Year 5 Progression & Skills	Year 6 Progression & Skills
NC Objectives	Safely use and explore a variety of materials, tools and techniques. Experimenting with design, texture, form and function.	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			
Make (Exploring and using media and materials)	<p>Explore a variety of materials and the use of simple tools</p> <p>Properties of materials: Paper vs card</p> <p>Cutting and measuring: Scissor control Accurate lines vs circles Scissors, hole punch With help measure, mark out, cut, shape and score a range of paper</p> <p>Texture: Soft, hard, rough, smooth, bumpy etc.</p> <p>Assemble: Cello tape, split pins, glue, paperclips, staples, spit pins masking tape, treasury tags, etc, what is best? What material can you paint on? Paper, plastic, felt etc Order of process, sticking, painting? Which comes first</p> <p>Joining: Talk about how to join paper based materials together.</p> <p>Simple threading/weaving</p> <p>Experimenting with colour</p> <p>Health and Safety: Taught how to use the tools under supervision.</p>	<p>Exploring a range of tools to create marks in clay.</p> <p>Features: Looking at features, sizes and shapes of existing items to base own model on.</p> <p>Skills: Rolling, cutting, shaping and mark making with a variety of tools to create a finished product.</p> <p>Cutting and measuring: Measuring and cutting material to the correct size and shape for their finished product.</p> <p>Assemble, Join and combine: Children will learn to join clay using scoring techniques and adding water. They will finish their product by smoothing the joins. Using other resources available to add decoration to product.</p> <p>Finishing: Use simple finishing techniques to improve the appearance of their product e.g. smoothing</p>	<p>Properties of materials: Thick and thin card, Soft wood,</p> <p>Properties of textiles: materials</p> <p>Cutting: Saws and pinking shears Cut, shape and join fabric to make a simple product. Use basic sewing techniques</p> <p>Assemble, Join and combine: cotton, thread Glue, paperclips, masking tape, staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles, Velcro</p> <p>Finishing: How to decorate effectively and appealing Choose and use appropriate finishing techniques— introduce sandpaper</p> <p>End product: Making look appealing for others</p> <p>Making decisions: How do we get started on deciding what to do? What do we need to do? What will work best? What tools will work best? What materials to choose?</p> <p>Health and Safety: Nails and needles Use hand tools safely and appropriately</p>	<p>Properties of materials: Soft wood Vs Hard wood discussion Laminated cardboard Woven materials, hessian</p> <p>Cutting: junior hack saw Work safely and accurately with a range of simple tools</p> <p>Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy</p> <p>Think about their ideas as they make progress and be willing change things if this helps them improve their work</p> <p>Joining: cotton, thread Glue, paperclips, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment using Sandpaper for smoothing, PVA glue,</p>	<p>Properties of materials: Cross laminating Card, wood Felt, calico, cotton, range of other household fabrics</p> <p>Cutting: Junior hack saw Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</p> <p>Nails, hammers,</p> <p>Joining: cotton, thread Glue, paperclips, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles</p> <p>Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment using Sandpaper for smoothing, PVA glue, Use simple graphical communication techniques</p>	<p>Properties of materials: Cross laminating Card, wood Grey board Foam board Felt, calico, cotton, range of other household fabrics</p> <p>Cutting: using a craft knife, junior hack saw Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately</p> <p>Joining: cotton, thread Glue, paperclips, masking tape, range of tapes staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Glue guns</p> <p>Cut and join with accuracy to ensure a good-quality finish to the product</p> <p>Achieve a quality product for a range of audiences with increased aesthetic qualities using the computer to create specific images/logos</p>	<p>Properties of materials: Cross laminating Card, wood Grey board Foam board Felt, calico, cotton, range of other household fabrics</p> <p>Cutting: using craft knife, junior hack saw Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along Pin, sew and stitch materials together create a product</p> <p>Joining: cotton, thread Glue, paperclips, range of tapes, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Glue guns</p> <p>Achieve a quality product for a range of audiences with increased aesthetic qualities using the computer to create specific images/logos</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills
NC Objectives	Children use what they have learnt about media and materials in original ways thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and 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 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 (Being imaginative)	Explore media and materials to build up knowledge and experiences to begin to generate/recreate ideas and designs. Suggest ideas and discuss what they are going to do. Identify a purpose for their design.	Draw on their own experience to help generate ideas Suggest ideas and verbally explain/draw what they are going to do Identify a target group/purpose for what they intend to design and make	Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation, drawing and modelling, templates and mock ups linked to sewing (paper patterns) Identify a target group /purpose for what they intend to design and make	Generate ideas from research for an item, considering its purpose and the user/s via discussion Identify a purpose and establish criteria for a successful product. Draw up a specification for their design via an annotated sketch/photograph and making simple pattern pieces Begin to explore how to design using a CAD programme Plan the order of their work, using given materials, tools and techniques	Generate ideas, considering the purposes for which they are designing via discussion Identify a purpose and establish criteria for a successful product. Draw up a specification for their design via an annotated sketch/photograph and making simple pattern pieces and prototypes Use a CAD programme to design a product 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 Plan the order of their work, using given materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes 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 Plan the order of their work, choosing appropriate materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes Develop a design specification 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 Plan the order of their work, choosing appropriate materials, tools and techniques

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills
NC Objectives	Children answer how and why questions about their experiences and in response to stories and events.	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 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	Talk about their product and what they like about it/what they would change next time and why?	Evaluate a range of existing products by discussing how well it works in relation to the purpose. (disassemble paper and card products) Evaluate their products as they are developed, identifying strengths and possible changes they might make Evaluate their product by answering questions about what they have made and how they have gone about it	Evaluate a range of existing products by discussing how well it works in relation to the purpose (disassemble products) Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time	Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i> Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability Understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability understand how key events and individuals in design and technology have helped shape the world linked to design topic.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills
NC Objectives	Children recognise a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	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.			
Technical Knowledge	Recognise and sort objects/pictures into home and school environment. Children to access a range of different technology e.g. beebots, computers, tablets, microphones, cameras etc.	Learn and explore about the characteristics of folding and layering paper and card to make a structure stronger and stiffer Learn how to manipulate card and paper to create a slider and a lever in a product Vocab: To define what it means by making something stronger and stiffer. Slider/lever Rolling, cutting, shaping, mark making, coiling, smoothing, joining	Learn and explore about the characteristics of materials, folding card plating yarn, to make it stronger, stiffer and more stable. How mechanisms can be used in different ways (wheels and axles that allow movement) Vocab: To define what it means by making something stronger, stiffer and stable. Slider/lever/push/pull	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce structures through weaving. Explore mechanical systems (CAMS) Vocab: To revisit what it means by making something stronger, stiffer and stable. Weaving & woven/reinforce/	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce structures. Design products using electrical systems (buzzers) Apply their understanding of computing to program, monitor and control their products. Vocab: To revisit what it means by making something stronger, stiffer and stable. Monitor/program/circuit (revisit vocab taught in science)	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce a range of more complex structures. Pulleys/Gears/Levers Vocab: To revisit what it means by making something stronger, stiffer and stable. Rotation/axels/gears/pulleys/levers	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce a range of more complex structures. Design products using electrical systems. (Electricity and light, buzzers) Apply their understanding of computing to program, monitor and control their products. Vocab: To consolidate all prior vocabulary.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills
NC Objectives	Children know the importance for good health and physical exercise, and a healthy diet and talk about ways to keep healthy and safe. They manage their own basic hygiene.	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 seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
Cooking and Nutrition	<p>Explore, discuss and sort a range of healthy/unhealthy foods and why it is important. Introduce a healthy plate.</p> <p>Hygiene: Learn about the importance of washing hands.</p>	<p>Show a range of fruit & Veg. Where have they come from (animals are meat, eggs come from chickens, milk from cows) and how they grow? (Linked to seasons)</p> <p>What is a healthy diet?</p> <p>Select and use appropriate fruit and vegetables, processes and tools</p> <p>Grow a food source from seed e.g.cress to use within a recipe.</p> <p>Use basic food handling, hygienic practices and personal hygiene</p>	<p>Eating the right amounts of different types of food.</p> <p>Know and understand a healthy and varied diet including drinks.</p> <p>Grow a food source from seed e.g.lettuce to use within a recipe.</p> <p>Follow safe procedures for food safety and hygiene</p>	<p>To know and understand the nutritional value of what they eat/drink during different seasons.</p> <p>Increase knowledge of food sources and how they are processed. E.g fish, veg</p> <p>Grow a food source from seed e.g. potatoes to use within a recipe.</p> <p>Weighing and measuring, chopping, mixing, blending, heating/cooling, grating</p> <p>Demonstrate hygienic food preparation and storage. Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</p>	<p>To know and understand the nutritional value of what they eat/drink during different seasons. Sugar and salt.</p> <p>Increase knowledge of food sources and how they are processed. E.g.</p> <p>Introduce the concept of the environmental impact of a food e.g. bananas</p> <p>Weighing and measuring, chopping, mixing, blending, heating/cooling, grating</p> <p>Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</p>	<p>To know and understand the nutritional value of what they eat/drink during different seasons. Fats.</p> <p>Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources.</p> <p>Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe</p> <p>Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</p>	<p>To know and understand the nutritional value of what they eat/drink during different seasons and the impact on the way their bodies function. Revisiting fats, sugar and salt.</p> <p>Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources.</p> <p>Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe</p> <p>Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</p>

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	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills	Progression & Skills
Outcomes/ activity ideas	<p><u>Autumn - evaluate and teach skills</u></p> <ul style="list-style-type: none"> Evaluate examples of pop up books/cards Making folds Making scores Using different things to join e.g. split pins Technical knowledge; stronger/stiffer/slider/leaver <p><u>Spring - design, make and evaluate</u></p> <ul style="list-style-type: none"> Design and make their own pop up card/book Evaluate your own design. <p><u>Summer - Cook!</u></p> <ul style="list-style-type: none"> Grow cress Make fruit salad Make a salad (using the cress they have grown) 	<p><u>Autumn - make</u></p> <ul style="list-style-type: none"> Look at existing examples of chosen products Recognition and teaching of tools and techniques for making and joining Make own product based on existing examples. <p><u>Spring - evaluate and teach skills</u></p> <ul style="list-style-type: none"> Evaluate examples of pirate ships and the materials needed to make something strong Teach technical knowledge of materials that will support the ships to be strong. <p><u>Summer - design, make and evaluate</u></p> <ul style="list-style-type: none"> Design and make different transport Evaluate your own design <p><u>Summer 2 - cook</u></p>	<p><u>Autumn - Cook!</u></p> <ul style="list-style-type: none"> Grow lettuce Using the lettuce create a healthy sandwich ensuring different food groups. <p><u>Spring - evaluate and teach skills</u></p> <ul style="list-style-type: none"> Evaluate examples of containers e.g. bags, boxes etc. Recognition of different materials Joining materials Introduce junior hacksaw and pinking shears Using sand paper as a finishing technique Running stitch <p><u>Summer - design, make and evaluate</u></p> <ul style="list-style-type: none"> Design and make different containers Evaluate your own design 	<p><u>Autumn - evaluate and teach skills</u></p> <ul style="list-style-type: none"> Weaving Explore mechanical systems Joining techniques Finishing to look better Evaluate examples of containers e.g. bags, boxes etc. Recognition of different materials Joining materials Introduce junior hacksaw and pinking shears Using sand paper as a finishing technique <p><u>Spring - design, make and evaluate</u></p> <ul style="list-style-type: none"> (Plant potatoes) Making a simple CAMS toy using a woven screen <p><u>Summer - cook</u></p> <ul style="list-style-type: none"> New potato salad 	<p><u>Autumn - Mini Cook</u></p> <ul style="list-style-type: none"> Using seasonal foods to create a meal <p><u>Autumn - Evaluate and teach skills</u></p> <ul style="list-style-type: none"> Joining using nails and hammers. Joining different materials together Finishing techniques temporary vs permanent <p><u>Spring - design, make and evaluate</u></p> <ul style="list-style-type: none"> Design a sign (light box) <p><u>Summer - Mini Cook</u></p> <ul style="list-style-type: none"> Using seasonal foods to create a meal 	<p><u>Autumn - evaluate, teach and skills</u></p> <ul style="list-style-type: none"> Joining using nails and hammers. Joining different materials together Finishing techniques temporary vs permanent Using grey board, foam board, craft knife, glue guns Pulleys, gears, cogs <p><u>Spring 1- Cook</u></p> <ul style="list-style-type: none"> Make a stew or soup using seasonal veg <p><u>Summer - design, make and evaluate</u></p> <ul style="list-style-type: none"> Design a catapult (trebuchet) 	<p><u>Evaluate and apply skills</u></p> <ul style="list-style-type: none"> Sewing task Building task Electrical task <p><u>Cook</u></p> <ul style="list-style-type: none"> Choose a seasonal meal to prepare and cook