





Progression in Design and Technology Shap CE School



		EYFS	Year 1/2	Year 3/4	Year 5/6
DESIGN		<p>Skills linked to:</p> <p>New EYFS Development Matters Statements 2020</p> <p>Early Learning Goals 2020</p> <p>Characteristics of Effective Learning I can statements</p> <p>EYFS covering shown in YR1/2 is highlighted in yellow and * in this column where appropriate. These will then be developed at a greater level when in KS1</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Design purposeful, functional, appealing products for themselves & other users based on design criteria • Generate, develop, model & communicate their ideas through talking, drawing, templates, mock-ups &, where appropriate, information & communication technology 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Use research & 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 & communicate their ideas through discussion, annotated sketches, cross-sectional & exploded diagrams, prototypes, patterned pieces & computer-aided design 	

	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Contexts, Uses & Purposes</p>	<p>CEL: PE I can make choices & explore different resources & materials</p> <p>CEL:CTC I can sort materials</p>  <p>(Sorting appropriate waterproof materials for pirate boats – Pirate Paddy)</p> <p>ELG: EAD:CM Safely use & explore a variety of materials, tools & techniques experimenting with colour, design, texture & form</p> <p>*developed in & through the weekly continuous provision</p>	<p>State the purpose of the design & the intended user</p> <p>Explore materials, make templates & mock ups e.g. moving picture / lighthouse</p>	<p>Gather information about the needs & wants of particular individuals & groups</p> <p>Develop their own design criteria & use these to inform their ideas</p> <p>Research designs</p>	<p>Carry out research, using surveys, interviews, questionnaires & web-based resources</p> <p>Identify the needs, wants, preferences & values of particular individuals & groups</p> <p>Develop a simple design specification to guide their thinking</p> <p>Recognise when their products have to fulfil conflicting requirements</p>
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	<p>Ideas</p>	<p>CEL: CTC I can make more links between my ideas</p> <p>CEL: CTC I can feel confident about coming up with my own ideas</p>  <p>(Pirate Paddy)</p> <p>CIR:PD Develop small motor skills so that they can use a range of tools competently, safely & confidently.</p> <p>ELG:PD Use a range of tools, including scissors</p> <p>*developed in & through the weekly continuous provision</p>	<p>Generate own ideas for design by drawing on own experiences or from reading</p>	<p>Share & clarify ideas through discussion</p> <p>Model their ideas using prototypes & pattern pieces</p> <p>Use annotated sketches, cross-sectional drawings & diagrams</p> <p>Use computer-aided design</p>	<p>Generate innovative ideas, drawing on research</p> <p>Make design decisions, taking account of constraints such as time, resources & cost</p> <p>Develop prototypes</p>
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MAKE		<p>EYFS covering shown in YR1/2 is highlighted in yellow and * in this column where appropriate. These will then be developed at a greater level when in KS1</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Select from & use a range of tools & equipment to perform practical tasks (e.g. cutting, shaping, joining & finishing) • Select from & use a wide range of materials & components, including construction materials, textiles & ingredients, according to their characteristic 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Select from & use a wider range of tools & equipment to perform practical tasks (e.g. cutting, shaping, joining & finishing), accurately • Select from & use a wider range of materials & components, including construction materials, textiles & ingredients, according to their functional properties & aesthetic qualities
	Planning	<p>*Experiment from a range of tools & equipment to discover what is best</p> <p>CEL:PE I can plan & think ahead about how I will explore or play with objects</p> <p>*developed in & through the weekly continuous provision. To include using a variety of construction kits available including with adult modelling support, guidance &</p>	<p>Select from a range of tools & equipment explaining their choices</p> <p>Select form a range of materials & components according to their characteristics</p>	<p>Select tools & equipment suitable for the task</p> <p>Explain their choice of tools & equipment in relation to the skills & techniques they will be using</p> <p>Select materials & components suitable for the task</p> <p>Explain their choice of materials & components according to functional properties & aesthetic qualities</p> <p>Order the main stages of making</p> <p>Produce detailed lists of tools, equipment & materials that they need</p>

Practical Skills and Techniques

<p>questioning</p> <p>*sometimes safety with adult guidance</p>  <p>(CP construction kits)</p>  <p>(CP woodworking)</p>	<p>Follow procedures for safety</p> <p>Use & make own templates</p> <p>Measure, mark out, cut out & shape materials & components</p> <p>Assemble, join & combine materials & components</p> <p>Use simple fixing materials e.g. temporary – paper clips, tape & permanent – glue, staples</p> <p>Use finishing techniques, including those from art & design</p>	<p>Follow procedures for safety</p> <p>Use wider range of materials & components, including construction materials & kits, textiles, food ingredients, mechanical components & electrical components</p>	
		<p>Measure, mark out, cut & shape, materials & components with some accuracy</p> <p>Assemble, join & combine materials & components with some accuracy apply a range of finishing techniques, include those from art & design, with some accuracy</p>	<p>Accurately measure to nearest mm, mark out, cut & shape materials & components</p> <p>Accurately assemble, join & combine materials/components</p> <p>Accurately apply a range of finishing techniques, including those from art & design</p> <p>Use techniques that involve a number of steps</p> <p>Demonstrate resourcefulness, e.g. make refinements</p>

EVALUATE		<p>Skills linked to:</p> <p>New EYFS Development Matters Statements 2020</p> <p>Early Learning Goals 2020</p> <p>Characteristics of Effective Learning I can statements EYFS covering shown in YR1/2 is highlighted in yellow and * in this column where appropriate. These will then be developed at a greater level when in KS1</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Explore & evaluate a range of existing products • Evaluate their ideas & products against design criteria 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Investigate & analyse a range of existing products • Evaluate their ideas & products against their own design criteria & consider the views of others to improve their work • Understand how key events & individuals in design & technology have helped shape the world 	
	Own Ideas & Products	<p>CEL: CTC I can solve real problems</p> <p>CEL: CTC I can review my progress as I try to achieve a goal. Check how well I am doing</p> <p>CEL: AL I can begin to correct my mistakes</p> <p>CEL:AL I can keep trying when things are difficult</p> <p>CIR: CL Use talk to help work out problems & organize thinking activities explain how things work & why they might happen</p>	<p>Talk about their design ideas & what they are making</p> <p>Make simple judgements about their products & ideas against design criteria</p> <p>Suggest how their products could be improved</p> <p>Evaluating products & components used</p>	<p>Identify the strengths & weaknesses of their ideas & products</p> <p>Consider the views of others, including intended users, to improve their work</p> <p>Refer back to their design criteria as they design & make</p> <p>Use their design criteria to evaluate their completed products</p>	
	Existing Products	<p>CL: ELG Offer explanations for why things might happen, making use of recently introduced related vocabulary</p>	<p>Investigate – what products are, who they are for, how they are made & what materials are used</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>Identify the strengths & weaknesses of their ideas & products</p> <p>Consider the views of others, including intended users, to improve their work</p> </td> <td style="width: 50%;"> <p>Critically evaluate the quality of the design manufacture & fitness for purpose of their products as they design & make</p> <p>Compare their ideas & products to their original design specification</p> </td> </tr> </table> <p>Investigate – how well products have been designed, how well products have been made, why materials have been chosen, what methods of construction have been used, how well products work, how well products achieve their purposes & how well products meet user needs & wants</p>	<p>Identify the strengths & weaknesses of their ideas & products</p> <p>Consider the views of others, including intended users, to improve their work</p>
<p>Identify the strengths & weaknesses of their ideas & products</p> <p>Consider the views of others, including intended users, to improve their work</p>	<p>Critically evaluate the quality of the design manufacture & fitness for purpose of their products as they design & make</p> <p>Compare their ideas & products to their original design specification</p>				

		*developed in & through the weekly continuous provision. To include using a variety of construction kits available including with adult modelling support, guidance & questioning		Investigate – who designed & made the products, where products were designed & made, when products were designed & made & whether products can be recycled or reused	Investigate – how much products cost to make, how innovative products are & how sustainable the materials in products are
	Key events/ individuals	*Designer & their work used as a stimulus or starting point		Identify great designers & their work & use research of designers to influence work	
TECHNICAL KNOWLEDGE		EYFS covering shown in YR1/2 is highlighted in yellow and * in this column where appropriate. These will then be developed at a greater level when in KS1	Pupils should be taught to: <ul style="list-style-type: none"> • Build structures, exploring how they can be made stronger, stiffer & more stable • Explore & use mechanisms (e.g. levers, sliders, wheels & axels), in their products 	Pupils should be taught to: <ul style="list-style-type: none"> • Apply their understanding of how to strengthen & reinforce more complex structures • Understand & use mechanical systems in their products (e.g. series circuits incorporating switches, bulbs, buzzers & motors) • Apply their understanding of computing to program, monitor & control their products 	
	Making Products Work	*developed in & through the weekly continuous provision. To include using a variety of construction kits available including with adult modelling support, guidance & questioning To also include construction kits and materials made available in the continuous provision	Understand about the simple working characteristics of materials & components Understand about the movement of simple mechanisms including levers, sliders (Year 1)		

		<p>*developed in & through the weekly continuous provision. To include using a variety of construction kits available including with adult modelling support, guidance & questioning Usually occurring in the child's natural play and critical thinking encouraged by practitioner</p>	<p>Understand about the simple working characteristics of materials & components</p> <p>Understand about the movement of simple mechanisms including levers, sliders (Year 1) wheels & axels (year 2)</p> <p>Understand that food ingredients should be combined according to their sensory characteristics</p> <p>Know the correct technical vocabulary for the projects they are undertaking</p> <p>Understand how freestanding structures can be made stronger, stiffer & more stable</p>	<p>Understand how to use learning from science & maths to help design & make products that work</p> <p>Know that materials have both functional properties & aesthetic qualities</p> <p>Know that materials can be combined & mixed to create more useful characteristics</p> <p>Know that mechanical & electrical systems have an input, process & output</p> <p>Use the correct technical vocabulary for the projects they are undertaking</p> <p>Understand how levers & linkages or pneumatic systems create movement</p> <p>Understand how simple electrical circuits & components can be used to create functional products</p> <p>Understand how to program a computer to control their products</p> <p>Know how to make strong, stiff shell structures</p> <p>Know that a single fabric shape can be used to make a 3D textiles product</p> <p>Know that food ingredients can be fresh, pre-cooked & processed</p>	<p>Understand how cams, pulleys & gears create movement</p> <p>Understand how more complex electrical circuits & components can be used to create functional products</p> <p>Know how to reinforce/strengthen a 3D framework</p> <p>Know that a 3D textiles product can be made from a combination of fabric shapes</p> <p>Know that a recipe can be adapted by adding or substituting one or more ingredients</p>
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COOKING & NUTRITION		<p>Skills linked to:</p> <p>New EYFS Development Matters Statements 2020</p> <p>Early Learning Goals 2020</p> <p>Characteristics of Effective Learning I can statements</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Use basic principles of a healthy & varied diet to prepare dishes • Understand where food comes from 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Understand & apply the principles of a healthy & varied diet • Prepare & cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, & know where & how a variety of ingredients are grown, reared, caught & processed
	Where Food Comes From	<p>EYFS covering shown in YR1/2 is highlighted in yellow and * in this column where appropriate. These will then be developed at a greater level when in KS1</p>	<p>Know where food comes from</p>	<p>Know that food is grown (such as tomatoes, wheat & potatoes), reared (such as pigs, chickens & cattle) & caught (such as fish) in the UK, Europe & the wider world</p> <p>Know that seasons may affect the food available</p> <p>Understand how food is processed into ingredients that can be eaten or used in cooking</p>
	Food Preparation, Cooking & Nutrition	<p>*With adult support</p> <p>CIR: PD Know & talk about the different factors that support their overall health & wellbeing: healthy eating</p> <p>CIR: PD Further develop the skills</p>	<p>Use appropriate equipment to weigh & measure ingredients</p> <p>Prepare simple dishes safely & hygienically, without using a heat sources</p> <p>Use techniques such as</p>	<p>How to prepare & cook a variety of predominantly savoury dishes safely & hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading & baking</p>

		<p>they need to manage the school day successfully – personal hygiene</p> <p>ELG:MS Manage own basic hygiene & personal needs, including understanding the importance of healthy food choices</p> <p>*developed in & through the weekly continuous provision. To include using a variety of construction kits available including with adult modelling support, guidance & questioning</p>	<p>cutting</p> <p>Name & sort foods into five groups of the 'eat well' plate</p> <p>Know that everyone should eat at least five portions of fruit & vegetables every day</p>	<p>Know that a healthy diet is made up from a variety & balance of different foods & drinks, as depicted in the 'eat well' plate</p> <p>Know that to be active & healthy, food is needed to provide energy for the body</p> <p>Measure using grams</p> <p>Follow a recipe</p>	<p>Know that recipes can be adapted to change the appearance, taste, texture & aroma</p> <p>Know that different foods contain different substances – nutrients, water & fibre – that are needed for health</p> <p>Understand the need for correct storage</p> <p>Measure accurately</p> <p>Work out ratios in recipes</p>
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