



Green Lea First School

Design and Technology Progression of Knowledge and Skills

	EYFS	Year 1	Year 2	Year 3	Year 4
Design	<p>Select appropriate resources</p> <p>*Use gestures, talking and arrangements of materials and components to show design</p> <p>* Use contexts set by the teacher and myself</p> <p>*Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)</p>	<p>have own ideas</p> <p>* explain what I want to do</p> <p>*explain what my product is for, and how it will work</p> <p>* use pictures and words to plan, begin to use models</p> <p>* design a product for myself following design criteria</p> <p>*research similar existing products</p>	<p>have own ideas and plan what to do next *</p> <p>explain what I want to do and describe how I may do it *</p> <p>explain purpose of product, how it will work and how it will be suitable for the user *</p> <p>describe design using pictures, words, models, diagrams, begin to use ICT *</p> <p>design products for myself and others following design criteria *</p> <p>choose best tools and materials, and explain choices *</p> <p>use knowledge of existing products to produce ideas</p>	<p>*begin to research others' needs *</p> <p>show design meets a range of requirements *</p> <p>describe purpose of product *</p> <p>follow a given design criteria *</p> <p>have at least one idea about how to create product *</p> <p>create a plan which shows order, equipment and tools *</p> <p>describe design using an accurately labelled sketch and words *</p> <p>make design decisions *</p> <p>explain how product will work *</p> <p>make a prototype *</p> <p>begin to use computers to show design</p>	<p>* use research for design ideas *</p> <p>show design meets a range of requirements and is fit for purpose *</p> <p>begin to create own design criteria *</p> <p>have at least one idea about how to create product and suggest improvements for design. *</p> <p>produce a plan and explain it to others *</p> <p>say how realistic plan is. *</p> <p>include an annotated sketch *</p> <p>make and explain design decisions considering availability of resources *</p> <p>explain how product will work *</p> <p>make a prototype *</p> <p>begin to use computers to show design.</p>

<p style="text-align: center;">Make</p>	<p>*Construct with a purpose, using a variety of resources *Use simple tools and techniques *Build / construct with a wide range of objects *Select tools & techniques to shape, assemble and join *Replicate structures with materials / components *Discuss how to make an activity safe and hygienic *Record experiences by drawing, writing, voice recording *Understand different media can be combined for a purpose</p>	<p>*explain what I'm making and why *consider what I need to do next *select tools/equipment to cut, shape, join, finish and explain choices *measure, mark out, cut and shape, with support *choose suitable materials and explain choices *try to use finishing techniques to make product look good *work in a safe and hygienic manner</p>	<p>*explain what I am making and why it fits the purpose *make suggestions as to what I need to do next. *join materials/components together in different ways *measure, mark out, cut and shape materials and components, with support. *describe which tools I'm using and why *choose suitable materials and explain choices depending on characteristics. *use finishing techniques to make product look good *work safely and hygienically</p>	<p>*select suitable tools/equipment, explain choices; begin to use them accurately * select appropriate materials, fit for purpose. * work through plan in order *consider how good product will be * begin to measure, mark out, cut and shape materials/components with some accuracy * begin to assemble, join and combine materials and components with some accuracy * begin to apply a range of finishing techniques with some accuracy</p>	<p>* select suitable tools and equipment, explain choices in relation to required techniques and use accurately *select appropriate materials, fit for purpose; explain choices * work through plan in order. * realise if product is going to be good quality * measure, mark out, cut and shape materials/components with some accuracy *assemble, join and combine materials and components with some accuracy *apply a range of finishing techniques</p>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Evaluate</p>	<p>*Adapt work if necessary *Dismantle, examine, talk about existing objects/structures *Consider and manage some risks *Practise some appropriate safety measures independently *Talk about how things work *Look at similarities and differences between existing objects / materials / tools *Show an interest in technological toys *Describe textures</p>	<p>*talk about my work, linking it to what I was asked to do * talk about existing products considering: use, materials, how they work, audience, where they might be used *talk about existing products, and say what is and isn't good * talk about things that other people have made *begin to talk about what could make product better</p>	<p>* describe what went well, thinking about design criteria * talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion *evaluate how good existing products are *talk about what I would do differently if I were to do it again and why</p>	<p>* look at design criteria while designing and making *use design criteria to evaluate finished product * say what I would change to make design better *begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose * begin to understand by whom, when and where products were designed * learn about some inventors/designers / engineers/chefs/ manufacturers of ground-breaking products</p>	<p>*refer to design criteria while designing and making *use criteria to evaluate product * begin to explain how I could improve original design *evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose * discuss by whom, when and where products were designed * research whether products can be recycled or reused * know about some inventors/designers/ engineers/chefs/ manufacturers of ground-breaking products</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Technical knowledge Materials/structures</p>			<p>*measure materials *describe some different characteristics of materials *join materials in different ways *use joining, rolling or folding to make it stronger *use own ideas to try to make product stronger</p>		<p>*measure carefully to avoid mistakes *attempt to make product strong *continue working on product even if original didn't work *make a strong, stiff structure</p>

<p>Technical knowledge mechanism</p>		<p>*begin to use levers or slides</p>	<p>*use levers or slides *begin to understand how to use wheels and axles</p>	<p>*select appropriate tools / techniques *alter product after checking, to make it better *begin to try new/different ideas *use simple lever and linkages to create movement</p>	
<p>Technical knowledge - textiles</p>		<p>*measure, cut and join textiles to make a product, with some support *choose suitable textiles</p>		<p>*join different textiles in different ways *choose textiles considering appearance and functionality *begin to understand that a simple fabric shape can be used to make a 3D textiles project</p>	
<p>Technical knowledge electrical systems</p>					<p>*use number of components in circuit *program a computer to control product</p>

Technical knowledge – food and nutrition

*Begin to understand some food preparation tools, techniques and processes *Practise stirring, mixing, pouring, blending *Discuss how to make an activity safe and hygienic *Discuss use of senses *Understand need for variety in food *Begin to understand that eating well contributes to good health

*describe textures *wash hands & clean surfaces *think of interesting ways to decorate food *say where some foods come from, (i.e. plant or animal) *describe differences between some food groups (i.e. sweet, vegetable etc.) *discuss how fruit and vegetables are healthy *cut, peel and grate safely, with support

*explain hygiene and keep a hygienic kitchen *describe properties of ingredients and importance of varied diet *say where food comes from (animal, underground etc.) *describe how food is farmed, homegrown, caught *draw eat well plate; explain there are groups of food *describe "five a day" *cut, peel and grate with increasing confidence

*carefully select ingredients *use equipment safely *make product look attractive *think about how to grow plants to use in cooking *begin to understand food comes from UK and wider world *describe how healthy diet= variety/balance of food/drinks *explain how food and drink are needed for active/healthy bodies. *prepare and cook some dishes safely and hygienically *grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking

*explain how to be safe/hygienic *think about presenting product in interesting/ attractive ways *understand ingredients can be fresh, pre-cooked or processed *begin to understand about food being grown, reared or caught in the UK or wider world *describe eat well plate and how a healthy diet=variety / balance of food and drinks *explain importance of food and drink for active, healthy bodies *prepare and cook some dishes safely and hygienically *use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking