

# Sacred Heart DT Skills Progression Map

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
							<h1>Designing</h1>
Understanding contexts, users and purposes	Select appropriate resources *Use gestures, talking and arrangements of materials and components to show my design * Use contexts set by the teacher and myself *Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)	* have my own ideas * explain what I want to do *explain what my product is for, and how it will work * use pictures and words to plan, begin to use models * design a product for myself following design criteria *research similar existing products *	have my own ideas and plan what to do next * explain what I want to do and describe how I may do it * explain purpose of product, how it will work and how it will be suitable for the user * describe design using pictures, words, models, diagrams, begin to use ICT * design products for myself and others following design criteria * choose best tools and materials, and explain choices * use knowledge of existing products to produce ideas	*begin to research others' needs * show design meets a range of requirements * describe purpose of product * follow a given design criteria * have at least one idea about how to create product and suggest improvements for design. * produce a plan and explain it to others *say how realistic plan is. *include an annotated sketch *make and explain design decisions considering availability of resources *explain how my product will work * make a prototype *begin to use computers to show design	* use research for design ideas * show design meets a range of requirements and is fit for purpose *begin to create own design criteria *have at least one idea about how to create product and suggest improvements for design. * produce a plan and explain it to others *say how realistic plan is. *include an annotated sketch *make and explain design decisions considering availability of resources *explain how my product will work * make a prototype *begin to use computers to show design.	*use internet and questionnaires for research and design ideas *take a user's view into account when designing * begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose *create own design criteria * have a range of ideas *produce a logical, realistic plan and explain it to others. *use cross-sectional planning and annotated sketches * make design decisions considering time and resources. *clearly explain how parts of product will work. *model and refine design ideas by making prototypes and using pattern pieces. *use computer-aided designs	Draw on market research to inform design * use research of user's individual needs, wants, requirements for design * identify features of design that will appeal to the intended user * create own design criteria and specification * come up with innovative design ideas *follow and refine a logical plan. *use annotated sketches, cross-sectional planning and exploded diagrams * make design decisions, considering, resources and cost * clearly explain how parts of design will work, and how they are fit for purpose * independently model and refine design ideas by making prototypes and using pattern pieces * use computer-aided designs
Generating, developing, modelling and communicating ideas	• generate ideas by drawing on their own experiences • use knowledge of existing products to help come up with ideas • develop and communicate ideas by talking and drawing	• generate ideas by drawing on their own experiences • use knowledge of existing products to help come up with ideas • develop and communicate ideas by talking and drawing • model ideas by exploring materials, components and construction kits and by making templates and mock- ups	• generate ideas by drawing on their own experiences • use knowledge of existing products to help come up with ideas • develop and communicate ideas by talking and drawing • model ideas by exploring materials, components and construction kits and by making templates and mock-ups • use information and communication technology, where appropriate, to develop and communicate their idea	• generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources	• generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources	• generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources	• generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources • generate innovative ideas, drawing on research • make design decisions, taking account of constraints such as time, resources and cost

Practical skills and techniques	<p>Construct with a purpose, using a variety of resources</p> <ul style="list-style-type: none"> <li>*Use simple tools and techniques</li> <li>*Build / construct with a wide range of objects</li> <li>*Select tools &amp; techniques to shape, assemble and join</li> <li>*Replicate structures with materials / components</li> <li>*Discuss how to make an activity safe and hygienic</li> <li>*Record experiences by drawing, writing, voice recording</li> <li>*Understand different media can be combined for a purpose.</li> </ul>	<ul style="list-style-type: none"> <li>*explain what I'm making and why</li> <li>*consider what I need to do next</li> <li>*select tools/equipment to cut, shape, join, finish and explain choices</li> <li>*begin to measure, mark out, cut and shape, with support</li> <li>*choose suitable materials and explain choices</li> <li>*try to use finishing techniques to make product look good</li> <li>*work in a safe and hygienic manner</li> </ul>	<ul style="list-style-type: none"> <li>*explain what I am making and why it fits the purpose</li> <li>*make suggestions as to what I need to do next.</li> <li>*join materials/components together in different ways</li> <li>*begin to measure, mark out, cut and shape materials and components, with support.</li> <li>*describe which tools I'm using and why</li> <li>*choose suitable materials and explain choices depending on characteristics.</li> <li>*use finishing techniques to make product look good</li> <li>*work safely and hygienically</li> </ul>	<ul style="list-style-type: none"> <li>select suitable tools/equipment, explain choices; begin to use them accurately</li> <li>* select appropriate materials, fit for purpose.</li> <li>* work through plan in order</li> <li>*consider how good product will be</li> <li>* begin to measure, mark out, cut and shape materials/components with some accuracy</li> <li>*begin to assemble, join and combine materials and components with some accuracy</li> <li>*begin to apply a range of finishing techniques with some accuracy</li> </ul>	<ul style="list-style-type: none"> <li>* select suitable tools and equipment, explain choices in relation to required techniques and use accurately</li> <li>*select appropriate materials, fit for purpose; explain choices</li> <li>* work through plan in order.</li> <li>* realise if product is going to be good quality</li> <li>* measure, mark out, cut and shape materials/components with some accuracy</li> <li>*assemble, join and combine materials and components with some accuracy</li> <li>*apply a range of finishing techniques with some accuracy</li> </ul>	<ul style="list-style-type: none"> <li>use selected tools/equipment with good level of precision</li> <li>* produce suitable lists of tools, equipment/materials needed</li> <li>*select appropriate materials, fit for purpose; explain choices, considering functionality</li> <li>* create and follow detailed step by-step plan</li> <li>* explain how product will appeal to an audience</li> <li>* mainly accurately measure, mark out, cut and shape material components</li> <li>*accurately assemble, join and combine materials/components</li> <li>* accurately apply a range of finishing techniques</li> <li>* use techniques that involve a small number of steps</li> <li>* begin to be resourceful with practical problems</li> </ul>	<ul style="list-style-type: none"> <li>* use selected tools and equipment precisely</li> <li>*produce suitable lists of tools, equipment, materials needed, considering constraints</li> <li>* select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics</li> <li>* create, follow, and adapt detailed step-by-step plans</li> <li>*explain how product will appeal to audience; make changes to improve quality</li> <li>* accurately measure, mark out, cut and shape materials/components</li> <li>* accurately assemble, join and combine materials/components</li> <li>* accurately apply a range of finishing techniques</li> <li>* use techniques that involve a number of steps</li> <li>* be resourceful with practical problems</li> </ul>
Evaluating							
Own ideas and products	<ul style="list-style-type: none"> <li>Adapt work if necessary</li> <li>*Dismantle, examine, talk about existing objects/structures</li> <li>*Consider and manage some risks</li> <li>*Practise some appropriate safety measures independently</li> <li>*Describe texture.</li> </ul>	<ul style="list-style-type: none"> <li>*talk about my work, linking it to what I was asked to do</li> <li>* talk about existing products considering: use, materials, how they work, audience, where they might be used</li> <li>*begin to talk about what could make product better.</li> </ul>	<ul style="list-style-type: none"> <li>describe what went well, thinking about design criteria</li> <li>* talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion</li> <li>*evaluate how good existing products are</li> <li>*talk about what I would do differently if I were to do it again and why.</li> </ul>	<ul style="list-style-type: none"> <li>* look at design criteria while designing and making</li> <li>*use design criteria to evaluate finished product</li> <li>* say what I would change to make design better</li> </ul>	<ul style="list-style-type: none"> <li>*refer to design criteria while designing and making</li> <li>*use criteria to evaluate product</li> <li>* begin to explain how I could improve original design</li> </ul>	<ul style="list-style-type: none"> <li>*evaluate quality of design while designing and making</li> <li>*evaluate ideas and finished product against specification, considering purpose and appearance.</li> <li>*test and evaluate final product</li> </ul>	<ul style="list-style-type: none"> <li>evaluate quality of design while designing and making; is it fit for purpose?</li> <li>* keep checking design is best it can be.</li> <li>*evaluate ideas and finished product against specification, stating if it's fit for purpose</li> <li>*test and evaluate final product; explain what would improve it and the effect different resources may have had.</li> </ul>

Existing products	<ul style="list-style-type: none"> <li>*Talk about how things work</li> <li>*Look at similarities and differences between existing objects / materials / tools</li> <li>*Show an interest in technological toys</li> </ul>	<ul style="list-style-type: none"> <li>*talk about existing products, and say what is and isn't good</li> <li>*talk about things that other people have made Across KS1 pupils should explore:</li> <ul style="list-style-type: none"> <li>• what products are for</li> <li>• who products are for</li> <li>• how products work</li> <li>• what products are for</li> <li>• how products work</li> <li>• how products are used</li> <li>• where products might be used</li> <li>• what materials products are made from</li> <li>• what they like and dislike about products</li> </ul> </ul>	<ul style="list-style-type: none"> <li>*evaluate how good existing products are</li> <li>• what products are for</li> <li>• who products are for</li> <li>• how products work</li> <li>• how products are used</li> <li>• where products might be used</li> <li>• what materials products are made from</li> <li>• what they like and dislike about products</li> </ul>	<ul style="list-style-type: none"> <li>*begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose</li> <li>*begin to understand by whom, when and where products were designed</li> <li>* learn about some inventors/designers/engineers/chefs/manufacturers of groundbreaking products</li> </ul>	<ul style="list-style-type: none"> <li>*evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</li> <li>*discuss by whom, when and where products were designed</li> <li>* research whether products can be recycled or reused</li> <li>* know about some inventors/designers/engineers/chefs/manufacturers of groundbreaking products</li> </ul>	<ul style="list-style-type: none"> <li>*evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</li> <li>* begin to evaluate how much products cost to make and how innovative they are</li> <li>*research how sustainable materials are</li> <li>*talk about some key inventors/designers/engineers/chefs/manufacturers of groundbreaking products.</li> </ul>	<ul style="list-style-type: none"> <li>*do thorough evaluations of existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose</li> <li>*evaluate how much products cost to make and how innovative they are</li> <li>*research and discuss how sustainable materials are</li> <li>*consider the impact of products beyond their intended purpose</li> <li>*discuss some key inventors/designers/engineers/chefs/manufacturers of groundbreaking products.</li> </ul>
Key events and individuals		Not a requirement in KS1		<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products e.g. Sir Kenneth Grange, Sir James Dyson, Sir Terence Conran, Steve Jobs, Katherine Johnson, Garrett Morgan.</li> </ul>	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products e.g. Sir Kenneth Grange, Sir James Dyson, Steve Jobs, Katherine Johnson, Garrett Morgan..</li> </ul>	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products e.g. Sir Kenneth Grange, Sir James Dyson, Steve Jobs, Katherine Johnson, Garrett Morgan..</li> </ul>	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products e.g. Sir Kenneth Grange, Sir James Dyson, Steve Jobs, Katherine Johnson, Garrett Morgan..</li> </ul>

Technical Knowledge							
Making products work		<ul style="list-style-type: none"> <li>*begin to measure and join materials, with some support</li> <li>*describe differences in materials</li> <li>*suggest ways to make material/product stronger</li> </ul>	<ul style="list-style-type: none"> <li>*measure materials</li> <li>*describe some different characteristics of materials</li> <li>*join materials in different ways</li> <li>*use joining, rolling or folding to make it stronger</li> <li>*use own ideas to try to make product stronger</li> </ul>	<ul style="list-style-type: none"> <li>*measure materials</li> <li>*use appropriate materials</li> <li>*work accurately to make cuts and holes</li> <li>*join materials</li> <li>*begin to make strong structure</li> </ul>	<ul style="list-style-type: none"> <li>*measure carefully to avoid mistakes</li> <li>*attempt to make product strong</li> <li>*continue working on product even if original didn't work</li> <li>*make a strong, stiff structure</li> </ul>	<ul style="list-style-type: none"> <li>*select materials carefully, considering intended use of product and appearance</li> <li>*explain how product meets design criteria</li> <li>*measure accurately enough to ensure precision</li> <li>*ensure product is strong and fit for purpose</li> <li>*begin to reinforce and strengthen a 3D frame</li> </ul>	<ul style="list-style-type: none"> <li>*select materials carefully, considering intended use of the product, the aesthetics and functionality.</li> <li>*explain how product meets design criteria</li> <li>*reinforce and strengthen a 3D frame</li> </ul>

Food preparation, cooking and nutrition	<ul style="list-style-type: none"> <li>*Begin to understand some food preparation tools, techniques and processes</li> <li>*Practise stirring, mixing, pouring, blending</li> <li>*Discuss how to make an activity safe and hygienic</li> <li>*Discuss use of senses</li> <li>*Understand need for variety in food</li> <li>*Begin to understand that eating well contributes to good health</li> </ul>	<ul style="list-style-type: none"> <li>*describe textures</li> <li>*wash hands &amp; clean surfaces</li> <li>*think of interesting ways to decorate food</li> <li>*say where some foods come from, (i.e. plant or animal)</li> <li>*describe differences between some food groups (i.e. sweet, vegetable etc.)</li> <li>*discuss how fruit and vegetables are healthy</li> <li>*cut, peel and grate safely, with support</li> </ul>	<ul style="list-style-type: none"> <li>*explain hygiene and keep a hygienic kitchen</li> <li>*describe properties of ingredients and importance of varied diet</li> <li>*say where food comes from (animal, underground etc.)</li> <li>*describe how food is farmed, home-grown, caught</li> <li>*draw eat well plate; explain there are groups of food</li> <li>*describe "five a day"</li> <li>*cut, peel and grate with increasing confidence</li> </ul>	<ul style="list-style-type: none"> <li>*carefully select ingredients</li> <li>*use equipment safely</li> <li>*make product look attractive</li> <li>*think about how to grow plants to use in cooking</li> <li>*begin to understand food comes from UK and wider world</li> <li>*describe how healthy diet=variety/balance of food/drinks</li> <li>*explain how food and drink are needed for active/healthy bodies.</li> <li>*prepare and cook some dishes safely and hygienically</li> <li>*grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</li> </ul>	<ul style="list-style-type: none"> <li>*explain how to be safe/hygienic</li> <li>*think about presenting product in interesting/ attractive ways</li> <li>*understand ingredients can be fresh, pre-cooked or processed</li> <li>*begin to understand about food being grown, reared or caught in the UK and the wider world</li> <li>*describe eat well plate and how a healthy diet=variety / balance of food and drinks</li> <li>*explain importance of food and drink for active, healthy bodies</li> <li>*prepare and cook some dishes safely and hygienically</li> <li>*use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</li> </ul>	<ul style="list-style-type: none"> <li>*explain how to be safe / hygienic and follow own guidelines</li> <li>*present product well - interesting, attractive, fit for purpose</li> <li>*begin to understand seasonality of foods</li> <li>*understand food can be grown, reared or caught in the UK and the wider world</li> <li>*describe how recipes can be adapted to change appearance, taste, texture, aroma</li> <li>*explain how there are different substances in food / drink needed for health</li> <li>*prepare and cook some savoury dishes safely and hygienically</li> <li>*use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> </ul>	<ul style="list-style-type: none"> <li>*understand a recipe can be adapted by adding / substituting ingredients</li> <li>*explain seasonality of foods</li> <li>*learn about food processing methods</li> <li>*name some types of food that are grown, reared or caught in the UK or wider world</li> <li>*adapt recipes to change appearance, taste, texture or aroma.</li> <li>*describe some of the different substances in food and drink, and how they can affect health</li> <li>*prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source.</li> <li>*use a range of techniques</li> </ul>
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### Textiles

Technical knowledge, Textiles		<ul style="list-style-type: none"> <li>*measure, cut and join textiles to make a product, with some support</li> <li>*choose suitable textiles</li> </ul>	<ul style="list-style-type: none"> <li>*measure textiles</li> <li>*join textiles together to make a product, and explain how I did it</li> <li>*carefully cut textiles to produce accurate pieces</li> <li>*explain choices of textile</li> <li>*understand that a 3D textile structure can be made from two identical fabric shapes.</li> </ul>	<ul style="list-style-type: none"> <li>*join different textiles in different ways</li> <li>*choose textiles considering appearance and functionality</li> <li>*begin to understand that a simple fabric shape can be used to make a 3D textiles project.</li> </ul>	<ul style="list-style-type: none"> <li>*think about user when choosing textiles</li> <li>*think about how to make product strong</li> <li>*begin to devise a template</li> <li>*explain how to join things in a different way</li> <li>*understand that a simple fabric shape can be used to make a 3D textiles project.</li> </ul>	<ul style="list-style-type: none"> <li>*think about user and aesthetics when choosing textiles</li> <li>*use own template</li> <li>*think about how to make product strong and look better</li> <li>*think of a range of ways to join things</li> <li>*begin to understand that a single 3D textiles project can be made from a combination of fabric shapes.</li> </ul>	<ul style="list-style-type: none"> <li>*think about user's wants/needs and aesthetics when choosing textiles</li> <li>*make product attractive and strong</li> <li>*make a prototype</li> <li>*use a range of joining techniques</li> <li>*think about how product might be sold</li> <li>*think carefully about what would improve product</li> <li>*understand that a single 3D textiles project can be made from a combination of fabric shapes.</li> </ul>
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