



# Mount Charles School

## Design and Technology Progression Map



		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Materials for purpose</p> <p>Year 1 Autumn 1: ILP: Dinosaur Planet Sockasaurus</p> <p>Year 3 Summer 2: ILP: Tribal Tales create your own stone age outfit</p> <p>Year 5 Spring 1/2: ILP: Stargazers Moonscape embroidery</p>	<b>Knowledge</b>	-They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	- Select and use a range of materials, beginning to explain their choices.		-Materials for a specific task must be selected on the basis of their properties. These include physical properties as well as availability and cost.		-Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.	
	<b>Skills</b>	-Use different techniques for joining materials -Use tools independently, with care & precision.	-Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.		-Plan which materials will be needed for a task and explain why.		-Select and combine materials with precision.	
	<b>Vocabulary</b>  <b>Tier 2</b>  <b>Tier 3</b>		<ul style="list-style-type: none"> <li>• Decorate</li> <li>• Fabric</li> <li>• Glue</li> <li>• Hand puppet</li> <li>• <b>Safety pin</b></li> <li>• <b>Model</b></li> <li>• <b>Staple</b></li> <li>• <b>Stencil</b></li> <li>• <b>Template</b></li> </ul>		<ul style="list-style-type: none"> <li>• Cushion</li> <li>• Decorate</li> <li>• Detail</li> <li>• Fabric</li> <li>• Patch</li> <li>• <b>Cross-stitch</b></li> <li>• <b>Accurate</b></li> <li>• <b>Applique</b></li> <li>• <b>Running-stitch</b></li> <li>• <b>Seam</b></li> <li>• <b>Stencil</b></li> <li>• <b>Stuffing</b></li> </ul>		<ul style="list-style-type: none"> <li>• Detail</li> <li>• Evaluation</li> <li>• Fabric</li> <li>• Sew</li> <li>• Shape</li> <li>• <b>Accurate</b></li> <li>• <b>Annotate</b></li> <li>• <b>Appendage</b></li> <li>• <b>Blanket-stitch</b></li> <li>• <b>Design criteria</b></li> <li>• <b>Stuffing</b></li> <li>• <b>Template</b></li> </ul>	

					<ul style="list-style-type: none"> <li>• Target audience</li> <li>• Target customer</li> <li>• Template</li> </ul>			
<p><b>Mechanisms and movement</b></p> <p>Year 1 Spring 2: ILP: Moon Zoom Moon Buggy</p> <p>Year 2 Summer 2: ILP: Wiggle and Crawl 3D mini beast models</p> <p>Year 4 Autumn 2: ILP: I am Warrior! Roman catapult</p>	<b>Knowledge</b>	-They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	-Different materials are suitable for different purposes, depending on their specific properties. For example, glass is transparent, so it is suitable to be used for windows.	-A mechanism is a device that takes one type of motion or force and produces a different one. -A mechanism makes a job easier to do. Mechanisms include sliders, levers, linkages, gears, pulleys and cams.		-Mechanisms can be used to add functionality to a model. For example, sliders or levers can be used in moving pictures, storybooks or simple puppets; linkages in moving vehicles or puppets; gears in motorised vehicles or spinning toys; pulleys in cable cars or transport systems and cams in 3-D moving toys or pictures.		
	<b>Skills</b>	-Use different techniques for joining materials -Use tools independently, with care & precision.	-Use wheels and axles to make a simple moving model.	-Use a range of mechanisms (levers, sliders, wheels and axles) in models or products.		-Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.		
	<b>Vocabulary</b>  <b>Tier 2</b>  <b>Tier 3</b>		<ul style="list-style-type: none"> <li>• Design</li> <li>• Evaluation</li> <li>• Fix</li> <li>• Test</li> <li>• Wheel</li> <li>• Mechanic</li> <li>• Mechanism</li> <li>• Model</li> <li>• Axle</li> <li>• Axle holder</li> <li>• Chassis</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Input</li> <li>• Lever</li> <li>• Linear motion</li> <li>• Linkage</li> <li>• Mechanical</li> <li>• Mechanism</li> <li>• Motion</li> <li>• Oscillating motion</li> <li>• Output</li> <li>• Pivot</li> <li>• Reciprocating motion</li> <li>• Rotary motion</li> <li>• Survey</li> </ul>		<ul style="list-style-type: none"> <li>• Design</li> <li>• Graphics</li> <li>• Air resistance</li> <li>• Design criteria</li> <li>• Function</li> <li>• Kinetic energy</li> <li>• Mechanism</li> <li>• Net</li> <li>• Structure</li> <li>• Aesthetic</li> </ul>		
	<b>Knowledge</b>	-They safely use and explore a	-	-Structures can be made stronger,	-Shell structures are hollow, 3-D			-Strength can be added to a

<p>Structures</p> <p>Year 2 Spring 2: ILP: Towers, Tunnels and Turrets. Design a house for the three little pigs</p> <p>Year 3 Spring 2: ILP: Flow Building bridges</p> <p>Year 6 Autumn 2: ILP: A Child's War Anderson shelters</p>		<p>variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>		<p>stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. -A broader base will also make a structure more stable.</p>	<p>structures with a thin outer covering, such as a box. Frame structures are made from thin, rigid components, such as a tent frame. -The rigid frame gives the structure shape and support. Diagonal struts can strengthen the structure.</p>			<p>framework by using multiple layers. For example, corrugated cardboard can be placed with corrugations running alternately vertically and horizontally. -Triangular shapes can be used instead of square shapes because they are more rigid. -Frameworks can be further strengthened by adding an outer cover.</p>
	<p><b>Skills</b></p>	<p>-Use different techniques for joining materials -Use tools independently, with care &amp; precision.</p>		<p>-Explore how a structure can be made stronger, stiffer and more stable.</p>	<p>-Create shell or frame structures using diagonal struts to strengthen them.</p>			<p>-Select the most appropriate materials and frameworks for different structures, explaining what makes them strong.</p>
	<p><b>Vocabulary</b></p> <p><b>Tier 2</b></p> <p><b>Tier 3</b></p>			<ul style="list-style-type: none"> <li>• Strong</li> <li>• Test</li> <li>• Weak</li> <li>• <b>Man-made</b></li> <li>• <b>Mould</b></li> <li>• <b>Natural</b></li> <li>• <b>Stable</b></li> <li>• <b>Stiff</b></li> <li>• <b>Structure</b></li> </ul>	<ul style="list-style-type: none"> <li>• Design criteria</li> <li>• Evaluation</li> <li>• Inspiration</li> <li>• <b>Aesthetic</b></li> <li>• <b>Weak</b></li> <li>• <b>Frame structure</b></li> <li>• <b>Function</b></li> <li>• <b>Cladding</b></li> <li>• <b>Reinforce</b></li> <li>• <b>Stable</b></li> <li>• <b>Structure</b></li> <li>• <b>Target audience</b></li> <li>• <b>Target customer</b></li> <li>• <b>Texture</b></li> <li>• <b>Theme</b></li> <li>• <b>Frame structure</b></li> <li>• <b>Function</b></li> </ul>			<ul style="list-style-type: none"> <li>• Adapt</li> <li>• Design</li> <li>• Evaluation</li> <li>• Feedback</li> <li>• Idea</li> <li>• Landscape</li> <li>• Mark out</li> <li>• Measure</li> <li>• Sketch</li> <li>• Strong</li> <li>• Weak</li> <li>• <b>Dowel</b></li> <li>• <b>Structure</b></li> <li>• <b>Modify</b></li> <li>• <b>Natural materials</b></li> <li>• <b>Plan view</b></li> <li>• <b>Prototype</b></li> <li>• <b>Reinforce</b></li> </ul>

								<ul style="list-style-type: none"> <li>• Apparatus</li> <li>• Cladding</li> </ul>
<p>CAD</p> <p>Year 2 Summer 2: ILP: Wiggle and Crawl 3D mini beast models</p> <p>Year 4 Spring 1: ILP: Potions Potion bottles</p> <p>Year 6 Spring 1/2: ILP: Frozen Kingdom Design a sledge</p>	<p>Knowledge</p>	<p>-Children recognise that a range of technology is used in places such as homes and schools.</p>		<p>-Computer software can be used to help design or plan a product.</p> <p>- Advantages include identifying and solving problems before the product is made and experimenting with different materials and colours. Labels can be added to designs for clarity.</p>		<p>-Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions.</p> <p>-They communicate ideas in a visual, detailed way.</p>		<p>-Design criteria should cover the intended use of the product, age range targeted and final appearance.</p> <p>-Ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p>
	<p>Skills</p>	<p>-They select and use technology for particular purposes</p>		<p>-Use design software to create a simple labelled design or plan.</p>		<p>-Use annotated sketches and exploded diagrams to test and communicate their ideas.</p>		<p>-Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.</p>
	<p>Vocabulary</p> <p>Tier 2</p> <p>Tier 3</p>			<ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Input</li> <li>• Lever</li> <li>• Linear motion</li> <li>• Linkage</li> <li>• Mechanical</li> <li>• Mechanism</li> <li>• Motion</li> <li>• Oscillating motion</li> <li>• Output</li> <li>• Pivot</li> <li>• Reciprocating motion</li> <li>• Rotary motion</li> <li>• Survey</li> </ul>		<ul style="list-style-type: none"> <li>• 2D</li> <li>• Cheap</li> <li>• Clipart</li> <li>• Advantage</li> <li>• Evaluate</li> <li>• Design</li> <li>• Instructions</li> <li>• Join</li> <li>• Assemble</li> <li>• Brand identity</li> <li>• Branding</li> <li>• Bug</li> <li>• CAD</li> <li>• Coding</li> <li>• Criteria</li> <li>• Debug</li> <li>• Develop</li> </ul>		<ul style="list-style-type: none"> <li>• Compass</li> <li>• Equipment</li> <li>• Concept</li> <li>• Convince</li> <li>• Corrode</li> <li>• Duplicate</li> <li>• 3D CAD</li> <li>• Application (apps)</li> <li>• Biodegradable</li> <li>• Cardinal compass</li> <li>• Client</li> <li>• Feature</li> <li>• Function</li> <li>• Functional</li> <li>• GPS tracker</li> <li>• If statement</li> </ul>

						<ul style="list-style-type: none"> <li>• Disadvantage</li> <li>• Ergonomic</li> <li>• Form</li> <li>• Function</li> <li>• Logo</li> <li>• Model</li> <li>• Net</li> <li>• Process</li> <li>• Program</li> <li>• Prototype</li> <li>• Template</li> </ul>		<ul style="list-style-type: none"> <li>• Infinite</li> </ul>
<p>Cooking and nutrition</p> <p>Year 1 Autumn 2: ILP: Superheroes Making a healthy superfood soup.</p> <p>Year 2 Spring 1 ILP: Street Detectives Making biscuits for a bakery.</p> <p>Year 3 Spring 1: ILP: Scrumdiddlyumptious Making bread and creating sweet treats.</p> <p>Year 4 Summer 1: ILP: Burps, Bottoms and Bile Designing and making their own healthy snacks</p> <p>Year 5 Summer 2: ILP: Allotments Planting and making healthy foods</p> <p>Year 6 Summer 2: ILP: Hola Mexico! Designing and making festival meal</p>	<b>Knowledge</b>	<p>-Know &amp; talk about the different factors that support their overall health &amp; well-being.</p>	<p>-Fruit and vegetables are an important part of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day.</p> <p>-Using non-standard measures is a way of measuring that does not involve reading scales. For example, weight may be measured using a balance scale and lumps of plasticine.</p> <p>-Length may be measured in the number of handspans or pencils laid end to end.</p> <p>-Some foods come from animals, such as meat, fish and dairy products. - Other foods come from plants, such as fruit, vegetables, grains, beans and nuts.</p>	<p>-A healthy diet should include meat or fish, starchy foods (such as potatoes or rice), some dairy foods, a small amount of fat and plenty of fruit and vegetables.</p> <p>-Some ingredients need to be prepared before they can be cooked or eaten. There are many ways to prepare ingredients: peeling skins using a vegetable peeler, such as potato skins; grating hard ingredients, such as cheese or chocolate; chopping vegetables, such as onions and peppers and slicing foods, such as bread and apples.</p> <p>-Food comes from two main sources: animals and plants. Cows provide beef, sheep provide lamb and mutton and pigs provide pork, ham</p>	<p>-Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.</p> <p>-There are five main food groups that should be eaten regularly as part of a balanced diet: fruit and vegetables; carbohydrates (potatoes, bread, rice and pasta); proteins (beans, pulses, fish, eggs and meat); dairy and alternatives (milk, cheese and yoghurt) and fats (oils and spreads).</p> <p>-Foods high in fat, salt and sugar should only be eaten occasionally as part of a healthy, balanced diet.</p> <p>-The types of food that will grow in a particular area depend on a range of factors, such as the rainfall, climate and</p>	<p>-Cooking techniques include baking, boiling, frying, grilling and roasting. Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus.</p> <p>-A healthy packed lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.</p> <p>Particular areas of the world have conditions suited to growing certain crops, such as coffee in Peru and citrus fruits in California in the</p>	<p>-Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.</p> <p>-A balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.</p> <p>-Seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower, due to</p>	<p>-Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.</p> <p>-Eating a balanced diet is a positive lifestyle choice that should be sustained over time. Food that is high in fat, salt or sugar can still be eaten occasionally as part of a balanced diet.</p> <p>-Organic produce is food that has been grown without the use of man-made fertilisers, pesticides, growth regulators or animal feed additives. - Organic farmers</p>

				<p>and bacon.</p> <p>-Examples of poultry include chickens, geese and turkeys. Examples of fish include cod, salmon and shellfish. Milk comes mainly from cows but also from goats and sheep.</p> <p>-Most eggs come from chickens. Honey is made by bees. Fruit and vegetables come from plants. Oils are made from parts of plants.</p> <p>-Sugar is made from plants called sugar cane and sugar beet. Plants also give us nuts, such as almonds, walnuts and hazelnuts.</p>	<p>soil type. For example, many crops, such as potatoes and sugar beet, are grown in the south-east of England. Wheat, barley and vegetables grow well in the east of England.</p>	<p>United States of America.</p>	<p>reduced transport; it supports local growers and is usually cheaper.</p>	<p>use crop rotation, animal and plant manures, hand-weeding and biological pest control.</p>
	<p><b>Skills</b></p>	<p>-Look closely at similarities, differences, patterns &amp; change</p>	<p>-Select healthy ingredients for a fruit or vegetable salad.</p> <p>-Measure and weigh food items using non-standard measures, such as spoons and cups. Sort foods into groups by whether they are from an animal or plant source.</p>	<p>-Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.</p> <p>-Prepare ingredients by peeling, grating, chopping and slicing. Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables).</p>	<p>-Prepare and cook a simple savoury dish. Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars).</p> <p>-Identify and name foods that are produced in different places.</p>	<p>-Identify and use a range of cooking techniques to prepare a simple meal. Design a healthy snack or packed lunch and explain why it is healthy.</p> <p>-Identify and name foods that are produced in different places in the UK and beyond.</p>	<p>-Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.</p> <p>-Evaluate meals and consider if they contribute towards a balanced diet. Describe what seasonality means and explain some of the reasons why it is beneficial.</p>	<p>-Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.</p> <p>-Plan a healthy weekly diet, justifying why each meal contributes towards a balanced diet.</p> <p>-Explain how organic produce is grown.</p>

	<p><b>Vocabulary</b></p> <p><b>Tier 2</b></p> <p><b>Tier 3</b></p>	<ul style="list-style-type: none"> <li>• Food</li> <li>• Meal</li> <li>• Snack</li> <li>• Healthy</li> <li>• Diet</li> </ul>	<ul style="list-style-type: none"> <li>• Fruit</li> <li>• Ingredients</li> <li>• Vegetable</li> <li>• Peel</li> <li>• Peeler</li> <li>• Recipe</li> <li>• Slice</li> <li>• Smoothie</li> <li>• Stencil</li> <li>• Template</li> <li>• Healthy</li> <li>• Blender</li> <li>• Carton</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Ingredients</li> <li>• Packaging</li> <li>• Refrigerator</li> <li>• Sugar</li> <li>• Substitute</li> <li>• Nutrients</li> <li>• Expensive</li> <li>• Healthy</li> <li>• Alternative</li> <li>• Diet</li> <li>• Balanced diet</li> </ul>	<ul style="list-style-type: none"> <li>• Climate</li> <li>• Dry climate</li> <li>• Exported</li> <li>• Imported</li> <li>• Nationality</li> <li>• Nutrients</li> <li>• Recipe</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment</li> <li>• Evaluation</li> <li>• Ingredients</li> <li>• Flavour</li> <li>• Adapt</li> <li>• Budget</li> <li>• Method</li> <li>• Packaging</li> <li>• Prototype</li> <li>• Quantity</li> <li>• Recipe</li> <li>• Rubbing</li> <li>• Sieving</li> <li>• Target audience</li> <li>• Unit of measurement</li> <li>• Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Cross-contamination</li> <li>• Supermarket</li> <li>• Farm</li> <li>• Ingredients</li> <li>• Diet</li> <li>• Ethical issues</li> <li>• Healthy</li> <li>• Method</li> <li>• Nutrients</li> <li>• Packaging</li> <li>• Reared</li> <li>• Recipe</li> <li>• Research</li> <li>• Substitute</li> <li>• Vegan</li> <li>• Vegetarian</li> <li>• Welfare</li> <li>• Seasonal food</li> <li>• Seasons</li> <li>• Temperate climate</li> <li>• Tropical climate</li> <li>• Mediterranean climate</li> </ul>	<ul style="list-style-type: none"> <li>• Cookbook</li> <li>• Equipment</li> <li>• Farm</li> <li>• Illustration</li> <li>• Cross-contamination</li> <li>• Accompaniment</li> <li>• Collaboration</li> <li>• Imperative-verb</li> <li>• Flavour</li> <li>• Ingredients</li> <li>• Method</li> <li>• Nationality</li> <li>• Preparation</li> <li>• Processed</li> <li>• Reared</li> <li>• Recipe</li> <li>• Research</li> <li>• Storyboard</li> <li>• Target audience</li> <li>• Top tips</li> <li>• Unit of measurement</li> </ul>
<p>Electricity/electrical systems</p> <p>Year 5 Autumn 2: ILP: Alchemy Island Torch</p> <p>(Year 4) Stand-alone lesson</p>	<p><b>Knowledge</b></p>					<p>-Components can be added to circuits to achieve a particular goal. These include bulbs for lighthouses and torches, buzzers for burglar alarms and electronic games, motors for fairground rides and motorised vehicles and switches for lights and televisions.</p>	<p>-Electrical circuits can be controlled by a simple on/off switch, or by a variable resistor that can adjust the size of the current in the circuit. Real-life examples are a dimmer switch for lights or volume control on a stereo.</p>	
	<p><b>Skills</b></p>					<p>-Incorporate circuits that use a variety of components into models or products.</p>	<p>-Use electrical circuits of increasing complexity in their models or products, showing an</p>	

							understanding of control.	
	Vocabulary					<ul style="list-style-type: none"> <li>• Component</li> <li>• Incorporate</li> <li>• Model</li> <li>• Product</li> <li>• Electronic</li> <li>• Motorised</li> </ul>	<ul style="list-style-type: none"> <li>• Battery</li> <li>• Buzzer</li> <li>• Circuit</li> <li>• Coin cell battery</li> <li>• Component</li> <li>• Conductor</li> <li>• Copper</li> <li>• Design</li> <li>• Design criteria</li> <li>• Function</li> <li>• Innovative</li> <li>• Insulator</li> <li>• LED</li> <li>• Modify</li> <li>• Series circuit</li> <li>• Switch</li> <li>• Target audience</li> <li>• Test</li> <li>• Wire</li> </ul>	
	Tier 3							
Design	Knowledge		<p>-The importance of a product may be that it fulfils its goals and performs a useful purpose. Design criteria are the explicit goals that a project must achieve.</p>	<p>-Many key individuals have helped to shape the world. These include engineers, scientists, designers, inventors and many other people in important roles.</p> <p>-Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.</p>	<p>-Key inventions in design and technology have changed the way people live. Design criteria are the exact goals a project must achieve to be successful. These criteria might include the product's use, appearance, cost and target user.</p>	<p>-Significant designers and inventors can shape the world. Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way.</p>	<p>-Many new designs and inventions influenced society. For example, labour-saving devices in the home reduced the amount of housework, which was traditionally done by women. This enabled them to have jobs.</p> <p>-A pattern piece is a drawing or shape used to guide how to make something. There are many different computer-aided design packages for designing products</p>	<p>-The significance of a designer or inventor can be measured in various ways. Their work may benefit society in health, transport, communication, education, the built environment or technology. It may enhance culture in different areas,</p> <p>-Design criteria should cover the intended use of the product, age range targeted and final appearance. Ideas can be communicated in a range of ways, including through discussion, annotated sketches,</p>



								cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
	<b>Skills</b>	-Develop own ideas through experimentation with diverse materials to express & communicate their discoveries & understanding -Create collaboratively sharing ideas, resources & skills.	-Describe why a product is important. -Create a design to meet simple design criteria.	-Explain why a designer or inventor is important. -Generate and communicate their ideas through a range of different methods.	-Describe how key events in design and technology have shaped the world. Develop design criteria to inform a design.	-Explain how and why a significant designer or inventor shaped the world. Use annotated sketches and exploded diagrams to test and communicate their ideas.	-Describe the social influence of a significant designer or inventor. -Use pattern pieces and computer-aided design packages to design a product.	-Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.
	<b>Vocabulary</b>  <b>Tier 3</b>	<ul style="list-style-type: none"> <li>• Picture</li> <li>• Drawing</li> <li>• Use</li> </ul>	<ul style="list-style-type: none"> <li>• Purpose</li> <li>• Develop</li> <li>• Model</li> <li>• Template</li> <li>• Information</li> <li>• Materials</li> <li>• Ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Mock up</li> <li>• Purpose</li> <li>• Function</li> <li>• Product</li> <li>• Media appeal</li> <li>• Prototype</li> <li>• Client/audience</li> <li>• Ideas</li> </ul>	<ul style="list-style-type: none"> <li>• User</li> <li>• Purpose</li> <li>• Design</li> <li>• Label,</li> <li>• Drawing</li> <li>• Function</li> <li>• Planning</li> <li>• Design criteria</li> <li>• Sketch</li> <li>• Appealing</li> <li>• Innovative</li> <li>• Annotated sketch</li> <li>• Mock up</li> <li>• Prototype</li> <li>• Ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Prototype</li> <li>• Cross section</li> <li>• Realistic</li> <li>• Innovative</li> <li>• Constraints</li> <li>• Discuss(ion)</li> <li>• Annotate</li> <li>• Decisions</li> <li>• Time</li> <li>• Resources</li> <li>• Clarify</li> <li>• Constraints</li> <li>• Sketch</li> <li>• Cross-sectional</li> <li>• Generate</li> <li>• Model</li> <li>• Develop</li> <li>• Prototype</li> <li>• Exploded diagram</li> <li>• Step-by-step</li> <li>• Plans</li> <li>• Guide</li> <li>• Cost</li> </ul>		
<b>Make</b>	<b>Knowledge</b>	-Use increasing knowledge & understanding of tools & materials to explore their	-Specific tools are used for particular purposes. For example, scissors are used for cutting	-Different tools have characteristics that make them suitable for	-Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples,	-Useful tools for cutting include scissors, craft knives, junior hacksaws with pistol	-There are many rules for using tools safely and these may vary depending on the tools being	-Precision is important in producing a polished, finished product. Correct

		interests & enquiries & develop their thinking	and glue is used for sticking. -Rules are made to keep people safe from danger. - Safety rules include always listening carefully and following instructions, using equipment only as and when directed, wearing protective clothing if appropriate and washing hands before touching food.	specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials. -Hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills.	or a combination of these. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and working under adult supervision. -Electrical appliances must only be used under the supervision of an adult. Safety rules must also be followed when using electricity: fingers and other objects must not be put into electrical outlets, anything with a cord or plug should never be used around water and a plug should never be pulled out by its cord.	grip and bench hooks. Useful tools for joining include glue guns. Tools should only be used with adult supervision and safety rules must be followed. -Chemicals are used in the home every day. They include cleaning products, such as bleach and disinfectant, but also paints, glues, oils, pesticides and medicines. Most chemical products carry a hazard symbol showing in what way the chemical could be harmful. Chemicals should only be used under adult supervision. -Appropriate safety precautions, such as wearing goggles and gloves, working in a well-ventilated room, wiping up spills and tying back long hair, should be taken.	used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after use, and should not be used if they are loose or cracked. -Safety features are often incorporated into products that might cause harm. -Some examples include the child-safety caps on medicine bottles, seatbelts in cars, covers for electrical sockets and finger guards on doors.	selection of tools and careful measurement can ensure the parts fit together correctly. -The safety of the user has to be taken into account when designing a new product. -Methods to help keep users safe include providing clear instructions for use; clear indication of the age range for which it is designed; safety features (such as child-resistant packaging); warning symbols and electrical safety checks.
	<b>Skills</b>	-Create representations both imaginary & real-life ideas, events, people & objects.	-Select the appropriate tool for a simple practical task. -Follow the rules to keep safe during a practical task	-Select the appropriate tool for a task and explain their choice. -Work safely and hygienically in construction and cooking activities.	-Use tools safely for cutting and joining materials and components. -Use appliances safely with adult supervision.	-Select, name and use tools with adult supervision. -Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.	-Name and select increasingly appropriate tools for a task and use them safely. -Explain the functionality and purpose of safety features on a range of products.	-Select appropriate tools for a task and use them safely and precisely. -Demonstrate how their products take into account the safety of the user.

	Vocabulary  <b>Tier 3</b>	<ul style="list-style-type: none"> <li>• Experiment</li> <li>• Change</li> <li>• Tools</li> <li>• Materials</li> <li>• Use</li> </ul>	<ul style="list-style-type: none"> <li>• Design,</li> <li>• Equipment</li> <li>• Materials</li> <li>• Fabric</li> <li>• Thread</li> <li>• Shape</li> <li>• Glue</li> <li>• Cut</li> <li>• Fold</li> <li>• Sew</li> <li>• Staple</li> <li>• Join</li> </ul>	<ul style="list-style-type: none"> <li>• Function</li> <li>• Equipment</li> <li>• Refine</li> <li>• Materials</li> <li>• Mechanism</li> <li>• Adhesive</li> <li>• Template</li> <li>• Adhere</li> <li>• Glue</li> <li>• Cut</li> <li>• Fold</li> <li>• Sew</li> <li>• Staple</li> <li>• Join</li> </ul>	<ul style="list-style-type: none"> <li>• Tools</li> <li>• Equipment</li> <li>• Materials</li> <li>• Components</li> <li>• Function</li> <li>• Mechanical</li> <li>• Electrical</li> <li>• Construction</li> <li>• Finishing</li> <li>• Painting</li> <li>• Smoothing</li> <li>• Assemble</li> <li>• Stages of making</li> <li>• Measure</li> <li>• Mark out</li> <li>• Cutting</li> <li>• Shaping</li> <li>• Perimeter</li> <li>• Slots</li> <li>• Cut-outs</li> <li>• Mechanism</li> <li>• Levers</li> <li>• Winding</li> <li>• Varnishing</li> <li>• Sanding</li> </ul>	<ul style="list-style-type: none"> <li>• Suitability</li> <li>• Aesthetic</li> <li>• Procedures</li> <li>• Accuracy</li> <li>• Cutting</li> <li>• Joining</li> <li>• Finishing</li> <li>• Accuracy</li> <li>• Assemble</li> <li>• Combine</li> <li>• Components</li> <li>• Textiles</li> <li>• Seam</li> <li>• Allowance</li> <li>• Techniques</li> <li>• Measure</li> <li>• Mark out</li> <li>• Drilling</li> <li>• Gluing</li> <li>• Filing</li> <li>• Sanding</li> <li>• Stitch</li> <li>• Back stitch</li> <li>• Running stitch</li> <li>• Qualities of materials</li> </ul>		
Evaluate	Knowledge	<p>-Express &amp; communicates working theories, feelings &amp; understandings</p> <p>-Discuss problems &amp; how they might be solved.</p>	<p>-A strength is a good quality of a piece of work. A weakness is an area that could be improved. Two products can be compared by looking at a set of criteria and scoring both products against each one.</p> <p>-Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products</p>	<p>-Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned.</p> <p>-Products can be compared by looking at particular characteristics of each and deciding which is better suited to the purpose. can be improved in different ways, such as making them easier to use,</p>	<p>-Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p> <p>-Work from different designers can be compared by assessing specific criteria, such as their visual impact, fitness for purpose and target market.</p> <p>-Explain how an existing product</p>	<p>-Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made.</p> <p>-Evaluation also includes suggesting improvements and explaining why they should be made. A comparison table can be used to</p>	<p>-A strength is a good quality of a piece of work. A weakness is an area that could be improved.</p> <p>-Two products can be compared by looking at a set of criteria and scoring both products against each one.</p> <p>-Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products</p>	<p>-Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned.</p> <p>-Products can be compared by looking at particular characteristics of each and deciding which is better suited to the purpose.</p> <p>-Products can be improved in different ways, such as making</p>

			are designed for a specific purpose.	more hardwearing or more attractive.	benefits the user. Particular products have been designed for specific tasks, such as nail clippers, the spinning top and the cool box.	compare products by listing specific criteria on which each product can be judged or scored. -Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.	are designed for a specific purpose.	them easier to use, more hardwearing or more attractive.
	<b>Skills</b>	-Return to & build on previous learning, refining ideas & developing their ability to represent them -Responds imaginatively to art works & objects	-Talk about their own and each other's work, identifying strengths or weaknesses and offering support. -Describe the similarities and differences between two products. -Name and explore a range of everyday products and describe how they are used.	-Explain how closely their finished products meet their design criteria and say what they could do better in the future. -Compare different brands of the same product and explain their similarities and differences. -Explain how an everyday product could be improved.	-Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. -Explain the similarities and difference between the work of two designers. -Explain how an existing product benefits the user.	-Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. -Create and complete a comparison table to compare two or more products. -Investigate and identify the design features of a familiar product.	-Talk about their own and each other's work, identifying strengths or weaknesses and offering support. -Describe the similarities and differences between two products. -Name and explore a range of everyday products and describe how they are used.	-Explain how closely their finished products meet their design criteria and say what they could do better in the future. -Compare different brands of the same product and explain their similarities and differences. -Explain how an everyday product could be improved.
	<b>Vocabulary</b>	<ul style="list-style-type: none"> <li>• Materials</li> <li>• Use</li> <li>• Idea</li> <li>• Improve</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate</li> <li>• Improve</li> <li>• Design</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Criteria</li> <li>• Judge</li> </ul>	<ul style="list-style-type: none"> <li>• Criteria</li> <li>• Evaluate</li> <li>• Product</li> <li>• Purpose</li> <li>• User</li> <li>• Needs</li> <li>• Design</li> <li>• Construction</li> <li>• Methods</li> </ul>	<ul style="list-style-type: none"> <li>• Strengths</li> <li>• Areas for development</li> <li>• Views</li> <li>• Developing</li> <li>• Design</li> <li>• Product</li> <li>• Criteria</li> <li>• Improve</li> <li>• Evaluate</li> <li>• Design specification</li> <li>• Quality</li> <li>• Manufacture</li> </ul>		
	<b>Tier 3</b>							

