

## Progression Design

Evaluating		
EYFS Be excited about what they have made		
Year 1 and 2	Year 3 and 4	Years 5 & 6

<ul style="list-style-type: none"> <li>• Know what a product is</li> <li>• Say what a product is for</li> <li>• Describe a product</li> <li>• Talk about their own work (features, design, opinion)</li> <li>• Describe how their product works</li> <li>• Know the features of familiar products</li> <li>• Give reasons for some features (colour choice, material used, joining technique)</li> <li>• Talk about own and others' work (features, design, opinion)</li> <li>• Explain why they chose certain materials, techniques and tools</li> <li>• Describe how their product works</li> </ul>	<ul style="list-style-type: none"> <li>• Start to research and evaluate existing products</li> <li>• Understand that products are designed for a purpose (e.g. a problem, an audience, an event)</li> <li>• Talk about own and others' work (features, design, opinion)</li> <li>• Explain why I chose certain materials, techniques and tools</li> <li>• Say what I would do to improve my product</li> <li>• Research and evaluate existing products to inform planning</li> <li>• Understand that products are designed for a purpose (e.g. a problem, an audience, an event)</li> <li>• Identify what is working well and what can be improved (this is during the make as well as at the end)</li> </ul>	<ul style="list-style-type: none"> <li>• Research and evaluate existing products giving reasons for the decisions of the designers (materials, design, tools, techniques)</li> <li>• Use the ideas from current designers to help with plans</li> <li>• Reflect on designs and develop them bearing in mind the way they will be used (during the process)</li> <li>• Research and evaluate existing products giving reasons for the decisions of the designers (materials, design, tools, techniques)</li> <li>• Use the ideas from current designers to help with own plans</li> <li>• I reflect on own designs and develop them bearing in mind the way they will be used (during the process)</li> </ul>
<p>Knowledge and Designers</p>		
<p>EYFS Talk together about designs and designers Role play as designers</p>		
<p>Year 1 and 2</p>	<p>Year 3 and 4</p>	<p>Years 5 &amp; 6</p>

<ul style="list-style-type: none"> <li>• Know what a designer does</li> <li>• Know the names and the products of some British designers (ensuring diverse representation)</li> <li>• Say what they like and dislike about the product and the designer</li> </ul>	<ul style="list-style-type: none"> <li>• Know some designers from history (ensuring diverse representation)</li> <li>• Talk about some of the tools, techniques and design used by the designer</li> </ul>	<ul style="list-style-type: none"> <li>• Know how key events and individuals have influenced the world (in terms of products) (ensuring diverse representation)</li> <li>• Compare and contrast the work of different designers (e.g. historical and modern)</li> <li>• Give reasons for the decisions made by the designer</li> </ul>
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Design		
EYFS Talk about what they want to make		
Year 1 and 2	Year 3 and 4	Years 5 & 6

<ul style="list-style-type: none"> <li>• Think of ideas and with help can put them into practice</li> <li>• Know what a design is and its purpose</li> <li>• Use pictures and words to describe what they want to do (materials and tools)</li> </ul> <ul style="list-style-type: none"> <li>• Think of ideas and with help can put them into practice</li> <li>• Know what a design is and its purpose</li> <li>• Use pictures and words to describe what to do (materials, techniques, features-mechanics etc. and tools)</li> </ul>	<ul style="list-style-type: none"> <li>• Think of ideas and plan what to do next, based on what I know about materials and components</li> <li>• Select the appropriate tools, techniques and materials</li> <li>• Plan using specific materials and explain my choice</li> <li>• Use pictures and words to describe what I want to do (materials, techniques, features-mechanics etc. and tools)</li> </ul> <ul style="list-style-type: none"> <li>• Think of ideas and plan what to do next, based on what is known about materials and components</li> <li>• Select the appropriate tools, techniques and materials explaining my choices</li> <li>• Communicate my ideas using labelled sketches giving reasons for choices</li> <li>• Start to produce step by step plans</li> </ul>	<ul style="list-style-type: none"> <li>• Use my knowledge of design designers and further research to help influence my own design</li> <li>• Create models or prototypes to show aspects of my design</li> <li>• Produce step by step plans</li> <li>• Use computer aided design</li> <li>• Come up with solutions to problems as they happen.</li> </ul> <ul style="list-style-type: none"> <li>• Use knowledge of design designers and further research to help influence own design</li> <li>• Create models or prototypes to show aspects of my design</li> <li>• Produce step by step plans</li> <li>• Use computer aided design</li> <li>• Take part in technical discussions about my ideas</li> <li>• Come up with solutions to problems as they happen.</li> </ul>
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**Making**

**EYFS**  
Use a variety of tools and materials to make models.

Year 1 and 2

Year 3 and 4

Years 5 & 6

<ul style="list-style-type: none"> <li>• Know what materials can be used for my structure</li> <li>• Know what a join is and can use one</li> <li>• Measure and mark out materials with care and increasing accuracy</li> <li>• Cut materials safely (scissors, junior hacksaw)</li> <li>• Be careful to make work look as neat as possible</li> <li>• Find out how to make materials for structure stronger (folding, rolling and joining, columns and triangles)</li> </ul>	<ul style="list-style-type: none"> <li>• Use appropriate materials and an appropriate join</li> <li>• Measure and mark out materials with care and increasing accuracy</li> <li>• Use scoring and folding to shape materials accurately</li> <li>• Make cuts accurately (scissors and saws)</li> <li>• Make holes accurately (drill, punch)</li> <li>• Join materials to make products using both permanent and temporary fastenings</li> <li>• Methods of working are increasingly precise aiming for a high quality finish</li> <li>• Art skills to apply texture and design to my products</li> </ul>	<ul style="list-style-type: none"> <li>• Select from a variety of materials best suited to my design</li> <li>• Measure using mm and then use scoring, and folding to shape materials accurately.</li> <li>• Make cuts accurately and reject pieces that are not accurate and improve my technique.</li> <li>• Joins are strong and stable, giving extra strength to products.</li> <li>• Some joins are flexible to allow for dismantling or folding.</li> <li>• Methods of working are precise so that products have a high quality finish.</li> <li>• Use computer programming when creating a product</li> </ul>
Mechanics and Electrics		
EYFS Build and construct models setting their own challenges eg tallest strongest longest Explore mechanical toys		
Year 1 and 2	Year 3 and 4	Years 5 & 6

<ul style="list-style-type: none"> <li>• Explore how moving objects work.</li> <li>• Look at wheels, axels, turning mechanisms, hingesandsimple levers.</li> <li>• Make a product that moves using a turningmechanism (e.g. wheels, winding) or a lever or a hinge (to make a movement)</li> </ul>	<ul style="list-style-type: none"> <li>• Know the application of mechanisms to create movement.</li> <li>• Combine a number of components well in myproduct.</li> <li>• Usesimplecircuits toeither illuminateorcreate motion.</li> <li>• Make a product that uses both electrical and mechanical components.</li> <li>• Products have a good finish so that a user will find it both useful and attractive.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose components that can be controlled by switches or by ICT equipment.</li> <li>• Product is improved after testing.</li> <li>• Use science skills (resistance, batteries in series or parallel, variable resistance to dim lights or control speed) to alter the way electrical products behave.</li> <li>• Use precise electrical connections.</li> <li>• Explored mechanical movement using hydraulics and pneumatics.</li> <li>• Use other DT skills to create housings for my mechanical components.</li> <li>• Product are well finished in a way that would appeal to users</li> </ul>
Textiles		
EYFS Explore different fabrics Use and explore fabrics and how they can be joined together		
Year 1 and 2	Year 3 and 4	Years 5 & 6

<ul style="list-style-type: none"> <li>• Know that textiles have different properties: touch, insulation, texture and waterproof. I select the appropriate textile so that it does the job I want it to.</li> <li>• Describe textiles by the way they feel.</li> <li>• Alter a textile to make it stronger.</li> <li>• Make a product from textiles.</li> <li>• Measure, mark out and cut fabric.</li> <li>• Join fabrics using glue and running stitch.</li> <li>• Make sure my work is neat and tidy.</li> </ul>	<ul style="list-style-type: none"> <li>• Select the appropriate textile(s) for my product.</li> <li>• Use sharp scissors accurately to cut textiles.</li> <li>• Know that the texture and other properties of materials affect choice.</li> <li>• Textile work incorporates the views of intended users' and for the purpose.</li> <li>• Use art textiles skills such as stitching to help create a product that is sturdy and fit for purpose.</li> <li>• Combine materials to add strength or visual appeal</li> <li>• Textile products include structural changes, such as plaiting or weaving to create new products such as rope, belts, bracelets etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Products have an awareness of commercial appeal.</li> <li>• Experiment with a range of materials until I find the right mix of affordability, appeal and appropriateness for the job.</li> <li>• Combine art skills to add colour and texture to my work.</li> <li>• Mark out using patterns and templates</li> <li>• Join textiles using art skills of stitching, embroidering and plaiting to make durable and desirable products.</li> </ul>
Cooking		
<p>EYFS</p> <p>use the basic principles of a healthy and varied diet to prepare simple dishes begin to question and wonder about where food comes from.</p>		
Year 1 and 2	Year 3 and 4	Years 5 & 6

<ul style="list-style-type: none"> <li>• With help, use knives safely</li> <li>• Use a mixing bowl</li> <li>• Be aware of hygiene for cooking</li> <li>• Know some things are made and some things are natural</li> <li>• Know some things are dangerous to eat raw</li> <li>• Know heat changes food</li> <li>• Use a variety of utensils safely</li> <li>• Know what the food groups are</li> <li>• Know where some foods come from</li> <li>• Be aware there are different ways to cook</li> <li>• Prepare a healthy snack and breakfast</li> </ul>	<ul style="list-style-type: none"> <li>• Select ingredients for my product with reasons</li> <li>• Work in a safe, hygienic way</li> <li>• Begin to measure out ingredients</li> <li>• Understand what is healthy and unhealthy</li> <li>• Boil and bake to cook</li> <li>• Understand why we need a healthy diet</li> <li>• Use knowledge of the food groups to plan a lunch</li> <li>• Know where food comes from</li> <li>• Prepare a healthy lunch</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why I have chosen ingredients in a dish</li> <li>• Know why we need certain food types</li> <li>• Grill, boil, fry and bake to cook</li> <li>• Know about local produce</li> <li>• Understand seasonality and this affects food</li> <li>• Know where different crops can be found around the world</li> <li>• understand the concept of carbon footprints</li> <li>• Know different cultures have different diets</li> <li>• Design and prepare a healthy dinner</li> </ul>
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Vocabulary	
YR	• Plan • Draw • Ideas • Design • Make • Build • Combine • Join • Shape • Tools • Complete • Product • Final • Change • Like • Dislike • Next time • Better • Worse • Different • Instead
Y1/2	• Plan • Prepare • Design • Materials • Ideas • Use • Model • Development • Market Research • Survey • Template • Fast • Slow • Faster • Slower • Up • Down • Turn • Wind up • Design • Draw • Sketch • Tools • Fix • Glue • Attach • Features • Brick • Wood • Stone • Cloth • Metal • Foam • Felt • Paper • Tissue • Newspaper • Cardboard • String • Wool • Clay • Scissors • Glue • Tape • Cut • Stick • Decorate • Healthy • Unhealthy • Source • Fruit • Vegetables • Clean • Safe • Dirty • Unsafe • Amount • Ingredients • Recipe • Weight • Nutrients • Vegetarian • Dietary requirements • Change • Improve • Prefer • Useful • Unsuccessful • Future • Progress • modify • Alter • Adapt • Original • Finished article • Evaluate • Graphics
Y3/4	Plan • Organise • Prototype • Initial ideas • Criteria • Diagrams • Labels • Annotate • Brief • Product • Consumer • Customer • Target audience • Purpose • Application • Constraints • Client • Materials • Mould • Liquid • Solid • Form • Shape • Adhesive • Lattice • Mass-produce • Hand-made • Packaging • Presentation
Y5/6	



	<ul style="list-style-type: none"><li>• Machine made</li><li>• Dimensions</li><li>• Durable</li><li>• Healthy</li><li>• Unhealthy</li><li>• Balanced</li><li>• Vitamins</li><li>• Disease</li><li>• Nutrition</li><li>• Healthy eating</li><li>• Hygiene</li><li>• Diet</li><li>• Cross contamination</li><li>• Grams</li><li>• Storage</li><li>• Presentation</li><li>• Taste</li><li>• Texture</li><li>• Flavour</li><li>• Disinfect</li><li>• Bacteria</li><li>• Assess</li><li>• Edit</li><li>• Improve</li><li>• Alter</li><li>• Outcome</li><li>• Develop</li><li>• Test</li><li>• Analyse</li><li>• Effective</li><li>• Fit for purpose</li><li>• Design criteria</li><li>• Alternatives</li><li>• Models</li><li>• Quality</li><li>• Function</li><li>• Functionality</li></ul>
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