

Skills Progression Map: DT

	Y3	Y4	Y5	Y6	End of KS Expectations
Design	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Look at a range of already existing products and discuss their construction. Understand the importance of a design brief. Draw accurate representations of finished products. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Discuss the choices made when selecting materials in existing products. Design products with multiple design criteria. Design products with technical elements such as circuit diagrams. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Evaluate the effectiveness of components in existing products. Design products with multiple mechanical components. Draw technical diagrams include dimensions. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Evaluate the effectiveness of components in existing products. Draw detailed technical drawing including measurements, direction of component travel, electrical circuits and multiple views. 	<ul style="list-style-type: none"> Use research and 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 and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and pattern pieces.
Making	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Tools for working with resistant materials are introduced in year 3 (chariot marking). Appropriateness of tools is discussed and operating procedures are established to ensure safe accurate working 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> A wider range of materials are introduced such as fabric in making of a Roman Bhullar. The range of tools are increased to match the increased variety of materials available (use of wire cutters/ strippers in the light it up project). 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Introduction of mechanical parts in the Cams, Pulleys and Levers project. Select components based on performance and joined in a variety of ways. Increased accuracy is needed as tolerances are reduced. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Products require a greater level of accuracy to be successful. Knowledge is built on from year4 and 5 in terms of mechanical components when making the Model Cars. Where individual components were uses, they are now combined (pulleys from an electric circuit. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
Technical Understanding	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Reinforce shapes for increased rigidity is introduced in Chariot making. Understand Axels when making Chariots. 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Create strong shapes is making the main structure of a lamp (Light it up). These are often more varied and unpredictable shapes. Include circuits in Light It Up. 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Create strong shapes that are load bearing for use in cam mechanisms. Select mechanical components depending on their operations (Cams, Levers and Pulleys) 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Combine multiple mechanical and electrical components (Electric car construction) Use a wider range of unpredictable and dynamic materials when Mask Making. More though needs to go into potential areas of difficulty. 	<ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

<p>Evaluating processes</p>	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Say what went well and could be improved in their product. 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Evaluate prototypes and make improvements. Critically assess the effectiveness of a product of against a success criteria. 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Evaluate prototypes and make improvements. Assess the suitability of materials and mechanisms. Critically assess the effectiveness of a product of against a success criterion. 	<p>Pupil should be taught to:</p> <ul style="list-style-type: none"> Assess the suitability of materials and mechanisms. Identify areas of design/ production that could be improved. Critically assess the effectiveness of a product of against a success criterion. 	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
<p>Food and Nutrition</p>	<p>Pupil should be taught to</p> <ul style="list-style-type: none"> The principles of a healthy diet are introduced in year 3. Where food comes from is introduced through the Seasonal Foods topic. Food is prepared but doesn't require cooking. 	<p>Pupil should be taught to</p> <ul style="list-style-type: none"> Cook savoury dishes from other parts of the world that are more complex and require heating (Forest School enrichment) 	<p>Pupil should be taught to</p> <ul style="list-style-type: none"> Prepare dishes that require a greater degree of measurement. (Viking bread during Forest School). 		<ul style="list-style-type: none"> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

