

Key Learning in Design and Technology: Years 3 and 4

Design		Make	Evaluate
<ul style="list-style-type: none"> Develop more than one design or adaptation of an initial design. Plan a sequence of actions to make a product. Record the plan by drawing using annotated sketches. Begin to use cross-sectional and exploded diagrams. Use prototypes to develop and share ideas. Think ahead about the order of their work and decide upon tools and materials. Propose realistic suggestions as to how they can achieve their design ideas. Consider aesthetic qualities of materials chosen. Use CAD where appropriate. 		<ul style="list-style-type: none"> Prepare pattern pieces as templates for their design. Cut slots. Cut internal shapes. Select from a range of tools for cutting shaping joining and finishing. Use tools with accuracy. Select from techniques for different parts of the process. Select from materials according to their functional properties. Plan the stages of the making process. Use appropriate finishing techniques. 	<ul style="list-style-type: none"> Investigate similar products to the one to be made to give starting points for a design. Draw/sketch products to help analyse and understand how products are made. Research needs of user. Identify the strengths and weaknesses of their design ideas in relation to purpose/user. Decide which design idea to develop. Consider and explain how the finished product could be improved. Discuss how well the finished product meets the design criteria of the user. Investigate key events and individuals in Design and Technology.
Food	Textiles	Structures	Mechanical and Electrical Systems and ICT
<ul style="list-style-type: none"> Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury). Follow instructions/recipes. Make healthy eating choices – use the <i>Eatwell plate</i>. Join and combine a range of ingredients. Explore seasonality of vegetables and fruit. Find out which fruit and vegetables are grown in countries/continents studied in Geography. Develop understanding of how meat/fish are reared/caught. 	<ul style="list-style-type: none"> Develop vocabulary for tools materials and their properties. Understand seam allowance. Join fabrics using running stitch, over sewing, blanket stitch. Prototype a product using J cloths. Use prototype to make pattern. Explore strengthening and stiffening of fabrics. Explore fastenings (inventors?) and recreate some. Sew on buttons and make loops. Use appropriate decoration techniques. 	<ul style="list-style-type: none"> Develop vocabulary related to the project. Create shell or frame structures. Strengthen frames with diagonal struts. Make structures more stable by giving them a wide base. Measure and mark square section, strip and dowel accurately to 1cm. 	<ul style="list-style-type: none"> Develop vocabulary related to the project. Use mechanical systems such as gears, pulleys, levers and linkages. Incorporate a circuit into a model. Use electrical systems such as switches bulbs and buzzers. Use ICT to control products. Use lolly sticks/card to make levers and linkages. Use linkages to make movement larger or more varied.