

Monkleigh Primary School - Design and Technology Progression Map

	Key Stage 1 (1/2)	Lower Key Stage 2 (3/4)	Upper Key Stage 2 (5/6)
Design	<ul style="list-style-type: none"> • Design purposeful, functional, appealing products for themselves and others based on design criteria. • Generate, develop, model and communicate ideas through talking, drawing, templates, mock-ups and, where appropriate, ICT. 	<ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of functional appealing products that are fit for purpose and aimed at particular individuals or groups. • Gather information about the needs and wants of individuals or groups. • Research designs • Develop their own design criteria and use these to inform their ideas. 	<ul style="list-style-type: none"> • Generate, develop and communicate their ideas through discussion, annotated sketches, cross-sectional designs, prototypes, pattern pieces and computer-aided design. • Carry out research, using surveys, interviews, questionnaires, and web-based resources. • Identify the needs, wants, preferences and values of particular individuals and groups. • Develop a simple design specification to guide their thinking. • Recognise when their products have to fulfil conflicting requirements.
Make	<ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining and finishing) • Making decisions about the characteristics and materials they have used. 	<ul style="list-style-type: none"> • Select from and use a wider range of tools and equipment to perform practical tasks (cutting, shaping, joining and finishing) • Measure, mark out, cut and shape materials and components with some accuracy and apply a range of finishing techniques. • Begin to use measuring tools. 	<ul style="list-style-type: none"> • 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. • Measure and assemble with a high level of accuracy. • Think carefully about the aesthetic of the final product
Evaluate	<ul style="list-style-type: none"> • Evaluate their own ideas and existing products. • Evaluate a peer's design. 	<ul style="list-style-type: none"> • Evaluate their products against their design criteria. • Take on suggestions from others. • Identify the strengths and weaknesses of their ideas and products. Consider the views of others, including intended users, to improve their work. 	<ul style="list-style-type: none"> • Critically evaluate the quality of the design manufacture and fitness for purpose of their products as they design and make. • Compare their ideas and products to their original design specification.
Technical Knowledge	<ul style="list-style-type: none"> • Build structures exploring how they can be made stronger, stiffer and more stable. • Explore and use mechanisms (for example, wheels, axles, levers, sliders) 	<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) • 	<ul style="list-style-type: none"> • Understand and use electrical systems in their products (for example, series circuits, incorporating switches, bulbs, buzzers and motors) • Apply their understanding of computing to program, monitor and control their products
Cooking Skills	<ul style="list-style-type: none"> • Using weighing scales and using measuring tools for dry and liquid ingredients. • Investigating the properties of yeast. • Exploring smells and tastes of spices, using toaster with supervision and a timer. Spreading and cooling. • Learning about cracking eggs, seasoning, using measuring spoons for small quantities of ingredients. Describe textures and non-reversible changes. 	<ul style="list-style-type: none"> • Learning new techniques: juicing citrus fruits, whisking, rinsing, chopping and preparing vegetables. • Follow a recipe • Learning about healthy alternatives, substituting ingredients and blending/freezing • Opportunity for comparisons between school-made and store-bought product. • Investigate aesthetic presentation options. 	<ul style="list-style-type: none"> • Learning to follow a more complex recipe. • Focus on safely prepping ingredients, • Using herbs and spices to enhance flavours. • Sieving and kneading techniques, developing understanding of proving. • Learn about oven temperatures/oven safety. • Learning about local ingredients • Use knives safely.