Whole School Progression in Design Technology

Objective	EYFS	Year 1 / 2	Year 3 / 4	Year 5 / 6
Design: Contexts, Uses and Purposes and Ideas		• design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology • Use computer-aided design • Generate own ideas for design by drawing on own experiences or from reading	• Gather information about the needs and wants of particular individuals and groups • Develop their own design criteria and use these to inform their ideas • Research designs • Share and clarify ideas through discussion • Model their ideas using prototypes and pattern pieces • Use annotated sketches, cross-sectional drawings and diagrams	• 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 • Generate innovative ideas, drawing on research Make design decisions, taking account of constraints such as time, resources and cost Develop prototypes

Make: Planning, Practical Skills and Techniques		• Select from a range of tools and equipment explaining their choices • Select from a range of materials and components according to their characteristics • Follow procedures for safety • Use and make own templates • Measure, mark out, cut out and shape materials and components • Assemble, join and combine materials and components • Use simple fixing materials e.g. temporary – paper clips tape and permanent – glue, staples • Use finishing techniques, including those from art and design	• Select tools and equipment suitable for the task • Start to explain their choice of tools and equipment in relation to the skills and techniques they will be using • Select materials and components suitable for the task • Start to explain their choice of materials and components according to functional properties and aesthetic qualities • Order the main stages of making • Produce detailed lists of tools, equipment and materials that they need • Measure, mark out, cut and shape materials and components with some accuracy • Assemble, join and combine materials	• Select tools and equipment suitable for the task • Explain their choice of tools and equipment in relation to the skills and techniques they will be using • Select materials and components suitable for the task • Explain their choice of materials and components according to functional properties and aesthetic qualities • Order the main stages of making Produce detailed lists of tools, equipment and materials that they need • Accurately measure to nearest mm, mark out, cut and shape materials and components • Accurately assemble, join and

			and components with some accuracy apply a range of finishing techniques, include those from art and design, with some accuracy	combine materials/ components • Accurately apply a range of finishing techniques, including those from art and design • Use techniques that involve a number of steps • Demonstrate resourcefulness, e.g. make refinements
<u>Evaluate:</u> own ideas and products as well as existing products		• Talk about their design ideas and what they are making • Make simple judgements about their products and ideas against design criteria • Suggest how their products could be improved • Evaluating products and components used • Investigate - what products are, who they are for, how they are made and	• Identify the strengths and weaknesses of their ideas and products • Consider the views of others, including intended users, to improve their work • Investigate - who designed and made the products, where products were designed and made, when products were designed and made and whether products can be recycled or reused	• 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 • Investigate - how much products cost to make, how innovative products are and how sustainable the materials in products are

		what materials are used		
Key Events and Individuals			Identify great designers and their work and use research of designers to influence work	
Technical Knowledge: Making products work		• Understand about the simple working characteristics of materials and components • Understand about the movement of simple mechanisms including levers, sliders (Year 1) wheels and axles (Year 2) • Understand that food ingredients should be combined according to their sensory characteristics • Know the correct technical vocabulary for the projects they are undertaking • Understand how freestanding structures can be made stronger, stiffer and more stable	• Understand how levers and linkages or pneumatic systems create movement • Understand how simple electrical circuits and components can be used to create functional products • Understand how to program a computer to control their products • Know how to make strong, stiff shell structures • Know that a single fabric shape can be used to make a 3D textiles product • Know that food ingredients can be fresh, pre-cooked and processed	• Understand how cams, pulleys and gears create movement • Understand how more complex electrical circuits and components can be used to create functional products • Understand how to program a computer to monitor changes in the environment / control their products • Know how to reinforce/strengthen a 3D framework • Know that a 3D textiles product can be made from a combination of fabric shapes • Know that a recipe can be adapted a by adding or substituting one or more ingredients

Cooking and Nutrition: Where food comes from and food prepping, cooking and nutrition		• Know where food comes from • Use appropriate equipment to weigh and measure ingredients • Prepare simple dishes safely and hygienically, without using a heat sources • Use techniques such as cutting • Name and sort foods into the five groups of the 'eat well' plate • Know that everyone should eat at least five portions of fruit and vegetables every day	• How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • Know that a healthy diet is made up from a variety and balance of different foods and drinks, as depicted in the 'eat well' plate • Know that to be active and healthy, food is needed to provide energy for the body • Measure using grams Follow a recipe	• How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • Know that recipes can be adapted to change the appearance, taste, texture and aroma • Know that different foods contain different substances - nutrients, water and fibre - that are needed for health • Understand the need for correct storage • Measure accurately Work out ratios in recipes