

St Mark's CEP school Curriculum progression grids

Subject: DT

		EYFS	Year 1/ 2	Year 3/ 4	Year 5/6
Skills and techniques	Design	<ul style="list-style-type: none"> Plan what will be made, how it will be made and what resources and tools are needed Plan models based on own ideas and those generated from books and experiences Explore materials and techniques to decide on the most appropriate for the task Consider challenges and suggestions from others to add to or improve the design of a model 	<ul style="list-style-type: none"> State the purpose of the design and the intended user Explore materials, make templates and mock ups e.g. moving picture / lighthouse Generate own ideas for design by drawing on own experiences or from reading 	<ul style="list-style-type: none"> 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 Use annotated sketches, cross-sectional drawings and diagrams Use computer-aided design Model their ideas using prototypes and pattern pieces 	<ul style="list-style-type: none"> 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

	<p style="text-align: center;">Make</p>	<ul style="list-style-type: none"> • Build models using construction equipment • Build to specific remit or plan and consider the best way to achieve the design • Select from a range of materials • Use tools safely and appropriately to make models • Experiment with design, form and function • Use a range of joining and attachment techniques • Use finishing techniques such as paint, collage or print 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 lists of tools, equipment and materials that they need • Follow procedures for safety • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components • Measure, mark out, cut and shape materials and components with some accuracy • Assemble, join and combine materials and components with some accuracy apply a range of finishing techniques, include those from art and design, with some accuracy 	<ul style="list-style-type: none"> • 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 • Follow procedures for safety • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components • Accurately measure to nearest mm, mark out, cut and shape materials and components • Accurately assemble, join and 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
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	Evaluate	<ul style="list-style-type: none"> • Share creations explaining the process • Consider how to improve a model • Consider the purpose of a model – is it fit for purpose? • Evaluate the effectiveness of the media and techniques used in a model • Answer questions about how and why decisions were made about models 	<ul style="list-style-type: none"> • Investigate - what products are, who they are for, how they are made and what materials are used • Make simple judgements about their products and ideas against design criteria • Suggest how their products could be improved • Evaluating products and components used 	<ul style="list-style-type: none"> • 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 • Identify the strengths and weaknesses of their ideas and products • Consider the views of others, including intended users, to improve their work • Refer back to their design criteria as they design and make • Use their design criteria to evaluate their completed products 	<ul style="list-style-type: none"> • Investigate - how much products cost to make, how innovative products are and how sustainable the materials in products are • Identify the strengths and weaknesses of their ideas and products • Consider the views of others, including intended users, to improve their work • Refer back to their design criteria as they design and make • Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make using their design criteria • Compare their ideas and products to their original design specification
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	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Technical skills</p>	<ul style="list-style-type: none"> • Investigate different media and consider why they are most appropriate for a particular model or creation • Investigate and test different attachment techniques with added materials e.g. masking tape, sellotape, glue, glue gun • Investigate and test different attachment techniques without extra resources e.g. tabs, cross cuts, flange • Make models with moving parts 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Understand how to use learning from science and maths to help design and make products that work • Know that materials have both functional properties and aesthetic qualities • Know that materials can be combined and mixed to create more useful characteristics • Know that mechanical and electrical systems have an input, process and output • Use the correct technical vocabulary for the projects they are undertaking • 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 	<ul style="list-style-type: none"> • Understand how to use learning from science and maths to help design and make products that work • Use the correct technical vocabulary for the projects they are undertaking • 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
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Food	<ul style="list-style-type: none"> • Apply good hygiene routines before handling food or equipment • Use equipment to weigh and measure ingredients • Make choices with food products e.g. toppings on a pizza, how to decorate a cake, which flavour biscuits to make etc. • Use a variety of techniques such as mixing, chopping, melting, spreading • Make observations about the cooking process e.g. melting cheese or chocolate, baking cake mixture to make a cake, mixing sugar and butter into a paste 	<ul style="list-style-type: none"> • Know where food comes from • Use appropriate equipment to weigh and measure ingredients • Prepare simple dishes safely and hygienically, without using a heat source • 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 	<ul style="list-style-type: none"> • Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world • Understand how food is processed into ingredients that can be eaten or used in cooking • Know that food ingredients can be fresh, pre-cooked and processed • 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 	<ul style="list-style-type: none"> • Know that seasons may affect the food available • 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 recipe can be adapted a by adding or substituting one or more ingredients • 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
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