

DESIGN AND TECHNOLOGY PROGRESSION FRAMEWORK

NC2014 PoS – Coded Objectives (Primary)



	Across KS1	Lower KS2	Upper KS2	Across KS2
PDA - DESIGNING Understanding contexts, users and purposes	PDA 1 - work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment PDA 2 - state what products they are designing and making PDA 3 - say whether their products are for themselves or other users PDA 4 - describe what their products are for PDA 5 - say how their products will work PDA 6 - say how they will make their products suitable for their intended users PDA 7 - use simple design criteria to help develop their ideas	PDA 8 - gather information about the needs and wants of particular individuals and groups PDA 9 - develop their own design criteria and use these to inform their idea	PDA 10 - carry out research, using surveys, interviews, questionnaires and web-based resources PDA 11 - identify the needs, wants, preferences and values of particular individuals and groups PDA 12 - develop a simple design specification to guide their thinking	PDA13 - work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment PDA 14 - describe the purpose of their products PDA 15 - indicate the design features of their products that will appeal to intended users PDA 16 - explain how particular parts of their products work
PDB - DESIGNING Generating, developing, modelling and communicating ideas	PDB 1 - generate ideas by drawing on their own experiences PDB 2 - use knowledge of existing products to help come up with ideas PDB 3 - develop and communicate ideas by talking and drawing PDB 4 - model ideas by exploring materials, components and construction kits and by making templates and mockups PDB 5 - use information and communication technology, where appropriate, to develop and communicate their ideas	PDB 6 - generate realistic ideas, focusing on the needs of the user PDB 7 - make design decisions that take account of the availability of resources	PDB 8 - generate innovative ideas, drawing on research PDB 9 - make design decisions, taking account of constraints such as time, resources and cost	PDB 10 - share and clarify ideas through discussion PDB 11 - model their ideas using prototypes and pattern pieces PDB 12 - use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas PDB 13 - use computer-aided design to develop and communicate their ideas

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PMA - MAKING Planning	PMA 1 - plan by suggesting what to do next PMA 2 - select from a range of tools and equipment, explaining their choices PMA 3 - select from a range of materials and components according to their characteristics	PMA 4 - order the main stages of making	PMA 5 - produce appropriate lists of tools, equipment and materials that they need PMA 6 - formulate step-by-step plans as a guide to making	PMA 7 - select tools and equipment suitable for the task PMA 8 - explain their choice of tools and equipment in relation to the skills and techniques they will be using PMA 9 - select materials and components suitable for the task PMA 10 - explain their choice of materials and components according to functional properties and aesthetic qualities
PMB - MAKING Practical skills and techniques	PMB 1 - follow procedures for safety and hygiene PMB 2 - use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components PMB 3 - measure, mark out, cut and shape materials and components PMB 4 - assemble, join and combine materials and components PMB 5 - use finishing techniques, including those from art and design	PMB 6 - measure, mark out, cut and shape materials and components with some accuracy PMB 7 - assemble, join and combine materials and components with some accuracy PMB 8 - apply a range of finishing techniques, including those from art and design, with some accuracy	PMB 9 - accurately measure, mark out, cut and shape materials and components PMB 10 - accurately assemble, join and combine materials and components PMB 11 - accurately apply a range of finishing techniques, including those from art and design PMB 12 - use techniques that involve a number of steps PMB 13 - demonstrate resourcefulness when tackling practical problem	PMB 14 - follow procedures for safety and hygiene PMB 15 - use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components

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PEA - EVALUATING Own ideas and products	PEA 1 - talk about their design ideas and what they are making PEA 2 - make simple judgements about their products and ideas against design criteria PEA 3 - suggest how their products could be improved	PEA 4 - refer to their design criteria as they design and make PEA 5 - use their design criteria to evaluate their completed products	PEA 6 - critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make PEA 7 - evaluate their ideas and products against their original design specification	PEA 8 - identify the strengths and areas for development in their ideas and products PEA 9 - consider the views of others, including intended users, to improve their work
PEB - EVALUATING Existing products	PEB 1 - what products are PEB 2 - who products are for PEB 3 - what products are for PEB 4 - how products work PEB 5 - how products are used PEB 6 - where products might be used PEB 7 - what materials products are made from PEB 8 - what they like and dislike about products	PEB 9 - who designed and made the products PEB 10 - where products were designed and made PEB 11 - when products were designed and made PEB 12 - whether products can be recycled or reused	PEB 13 - how much products cost to make PEB 14 - how innovative products are PEB 15 - how sustainable the materials in products are PEB 16 - what impact products have beyond their intended purpose	PEB 17 - how well products have been designed PEB 18 - how well products have been made PEB 19 - why materials have been chosen PEB 20 - what methods of construction have been used PEB 21 - how well products work PEB 22 - how well products achieve their purposes PEB 23 - how well products meet user needs and wants
PEC - EVALUATING Key events and individuals				PEC 1 - about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products

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PTK - TECHNICAL KNOWLEDGE Making products work	PTK 1 - about the simple working characteristics of materials and components PTK 2 - about the movement of simple mechanisms such as levers, sliders, wheels and axles PTK 3 - how freestanding structures can be made stronger, stiffer and more stable PTK 4 - that a 3-D textiles product can be assembled from two identical fabric shapes PTK 5 - that food ingredients should be combined according to their sensory characteristics PTK 6 - the correct technical vocabulary for the projects they are undertaking	PTK 7 - how mechanical systems such as levers and linkages or pneumatic systems create movement PTK 8 - how simple electrical circuits and components can be used to create functional products PTK 9 - how to program a computer to control their products PTK 10 - how to make strong, stiff shell structures PTK 11 - that a single fabric shape can be used to make a 3D textiles product PTK 12 - that food ingredients can be fresh, pre-cooked and processed	PTK 13 - how mechanical systems such as cams or pulleys or gears create movement PTK 14 - how more complex electrical circuits and components can be used to create functional products PTK 15 - how to program a computer to monitor changes in the environment and control their products PTK 16 - how to reinforce and strengthen a 3D framework PTK 17 - that a 3D textiles product can be made from a combination of fabric shapes PTK 18 - that a recipe can be adapted by adding or substituting one or more ingredients	PTK 19 - how to use learning from science to help design and make products that work PTK 20 - how to use learning from mathematics to help design and make products that work PTK 21 - that materials have both functional properties and aesthetic qualities PTK 22 - that materials can be combined and mixed to create more useful characteristics PTK 23 - that mechanical and electrical systems have an input, process and output PTK 24 - the correct technical vocabulary for the projects they are undertaking

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PCNA - COOKING AND NUTRITION Where food comes from	PCNA 1 - that all food comes from plants or animals PCNA 2 - that food has to be farmed, grown elsewhere (e.g. home) or caught		PCNA 3 - that seasons may affect the food available PCNA 4 - how food is processed into ingredients that can be eaten or used in cooking	PCNA 5 - 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
PCNB - COOKING AND NUTRITION Food preparation, cooking and nutrition	PCNB 1 - how to name and sort foods into the five groups in the Eatwell Guide PCNB 2 - that everyone should eat at least five portions of fruit and vegetables every day PCNB 3 - how to prepare simple dishes safely and hygienically, without using a heat source PCNB 4 - how to use techniques such as cutting, peeling and grating	PCNB 5 - that a healthy diet is made up from a variety and balance of different food and drink, as depicted in the Eatwell Guide PCNB 6 - that to be active and healthy, food and drink are needed to provide energy for the body	PCNB 7 - that recipes can be adapted to change the appearance, taste, texture and aroma PCNB 8 - that different food and drink contain different substances – nutrients, water and fibre – that are needed for health	PCNB 9 - how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source PCNB 10 - how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking