DESIGN & TECHNOLOGY ASSOCIATION

DESIGN AND TECHNOLOGY PROGRESSION FRAMEWORK

NC2014 PoS – Coded Objectives (Primary)

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	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