



Learning in Design and Technology Skills Progression - Year 1 - Year 6



		Y1	Y2	Y3	Y4	Y5	Y6
Aims of the National Curriculum		<ul style="list-style-type: none"> - Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world - Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users - Critique, evaluate and test their ideas and products and the work of others - Understand and apply the principles of nutrition and learn how to cook 					
NC Programme of Study	Design	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 research and develop design criteria to inform the design of innovative, functional, appealing products that are fit to purpose, aimed at particular individuals or groups (<i>*suggested by Bishop Walsh for Y3 and Y4 to complete a project on food, Y5 to complete a project on textiles and Y6 to complete a project on D. T</i>) Generate, develop, model and communicate their ideas through discussions, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			
	Make	Select from and use a range of tools and equipment to perform practical tasks Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics		Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities			
	Evaluate	Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria		Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world			
	Technical Knowledge	Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms in their products		Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products Understand and use electrical systems in their products Apply their understanding of computing to program, monitor and control their products			
	Cooking and nutrition	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from		Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed			
Progression in Learning skills	To design	Describe what products are for State what products they are designing and making Use simple design criteria to help develop ideas		Gather information about the needs and wants of particular individuals and groups Develop their own design criteria and use these to inform their ideas		Carry out research, using surveys, interviews, questionnaires and web-based resources Identify the needs, wants, preferences and values of particular individuals and groups	
	To generate	Generate ideas by drawing on their own experiences Model ideas by exploring materials, components and construction kits and by making templates and mock-ups		Generate realistic ideas, focusing on the needs of the user		Generate innovative ideas, drawing on research <i>*Make design decisions, taking account of constraints such as time, resources and cost</i>	
	To Plan	Select from a range of materials and components according to their characteristics		Select tools, materials and components suitable for the task		Explain their choice of materials and components according to functional properties and aesthetic qualities	

Every child has the right to an education. (Article 28)

Education must develop every child's personality, talents and abilities to the full. (Article 29)

Every child has the right to relax, play and take part in a wide range of cultural and artistic activities. (Article 31)



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	Practical skills	Measure, mark out, cut and shape materials and components Assemble, join and combine materials and components Use finishing techniques, including those from art and design	Use a wider range of materials and components with some accuracy Assemble, join and combine materials and components with some accuracy	Use a wider range of materials and components with some accuracy e.g. materials kits, textiles, food ingredients, mechanical components and electrical components Accurately assembly, join ad combine materials and components Demonstrate resourcefulness when tackling practical problems
	To evaluate own ideas and products	Talk about their design ideas and what they are making Make simple judgments about their products and ideas against design criteria	Refer to their design criteria as they design and make Use their design criteria to evaluate their completed products	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
	To evaluate existing products	Explore what products are for, audience, purpose and how they are used Know what materials products are made from Discuss what they like and dislike about products	Investigate and analyse who designed and made the products, where they were made and when products were designed and made Explore whether products can be recycled or reused	Investigate and analyse how much products cost to make, how innovative products are, how sustainable the materials in products are and what impact products have beyond their intended purpose
	Key events and individuals			To know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products
	To know how products work	Know about the simple working characteristics of materials and components Explore the movement of simple mechanisms such as levers, sliders, wheels and axles Know how freestanding structures can be made stronger, stiffer and more stable	Know how mechanical systems such as levers and linkages or pneumatic systems create movement Know how simple electrical circuits and components can be used to create functional products Know how to program a computer to control their products Know how to make strong, stiff shell structures	Know hoe mechanical systems such as cams or pulleys or gears create movement Know how more complex electrical circuits and components can be used to create functional products Know how to program a computer to monitor changes in the environment and control their products
	Knowledge of food	Know that all food comes from plants or animals Know that food has to be farmed grown elsewhere or caught	Know that food is grown, reared and caught in the UK, Europe and the wider world	Know that season may affect the food available Know how food is processed into ingredients that can be eaten or used in cooking
	Food preparation, cooking and nutrition	Know how to name and sort foods into five groups Know that everyone should eat at least five portions of fruit and vegetables every day How to prepare simple dishes safely and hygienically How to use techniques such as cutting, peeling and grating	How to prepare and cook a variety of predominately savoury dishes safely and hygienically That to be healthy and active, food and drink are needed to provide energy for the body	How to use a range of techniques such as peeling, chopping slicing, grating, mixing, spreading, kneading and baking *Know that different food and drink contain different substances- nutrients, water and fibre- that are needed for health
	Support transition to Bishop Walsh	Be confident in converting cm to mm to support measuring for marking out and weighing ingredients Confident in using a pencil for neat shading		

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