KS3 DT COVERAGE		Y7 UNITS					Y8 UNITS							
		Sketching and Modelling - scalextric controller	Textiles - pattern making	Mechanical Systems - isotope challenge	Principles of Nutrition & Health	**Y7 Workshop - Champions of wind**	3D Printing & Prototyping - bubble wand	Building a Food Repertoire	Textiles - dress making (F)	Textiles - sustainability (M)	Wind turbine challenge - Forces and Stresses	Programming Microcontrollers - Pedestrian crossing	**Y8 Workshop - H2 The Future**
Design	Use research and exploration, such as the study of different cultures, to identify and understand user needs		■		■				■				
	Identify and solve their own design problems and understand how to reformulate problems given to them	■		■		■	■		■	■	■		■
	Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations	■			■	■			■	■			■
	Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses	■	■						■			■	
	Develop and communicate design ideas using annotated sketches, detailed plans, 3D and mathematical modelling, oral and digital presentations and computer-based tools	■	■	■			■				■	■	
Make	Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture	■	■				■	■	■	■	■	■	
	Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties		■	■				■		■	■	■	
Evaluate	Investigate new and emerging technologies					■	■				■	■	■
	Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups	■			■	■		■	■	■	■		■
	Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists	■	■		■	■	■		■	■			■
Technical knowledge	Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions	■		■			■		■	■	■		
	Understand how more advanced mechanical systems used in their products enable changes in movement and force			■		■					■		
	Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs					■					■	■	■
	Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers]					■						■	
Cooking and nutrition	Understand and apply the principles of nutrition and health				■			■					
	Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet				■			■					
	Become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes]				■			■					
	Understand the source, seasonality and characteristics of a broad range of ingredients				■			■					