

Design and Technology: essential skills and knowledge			
Strand	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Design: Design criteria	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Conduct research from potential users of a product to inform, adapt or change the design of a product.	Use research to develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and are aimed at particular audience.
	<ul style="list-style-type: none"> Dinosaur Discovery Roll Up, Roll Up! Twist and Shout 	<ul style="list-style-type: none"> It's Not Fair Merlin Musical Express 	<ul style="list-style-type: none"> Bloodhound Blitz Digital Dragons' Den
	<ul style="list-style-type: none"> Dinosaur discovery: theme overview Roll Up, Roll Up: theme overview (PDF) Twist and Shout: theme overview 	<ul style="list-style-type: none"> It's Not Fair: theme overview Merlin: theme overview Musical Express: theme overview 	<ul style="list-style-type: none"> Blitz: theme overview Bloodhound: theme overview Digital Dragons' Den: theme overview
Design: Representing design ideas	Generate, develop, model and communicate ideas through talking, drawing, templates, mock-ups or digital representation.	Generate, develop, model and communicate design ideas through discussion and annotated sketches.	Generate, develop, model and communicate design ideas through cross-sectional and exploded diagrams, prototypes, pattern pieces or computer-aided design.
	<ul style="list-style-type: none"> Shipwreck Roll Up, Roll Up! Worth Repeating 	<ul style="list-style-type: none"> Trailblazers Zeus Musical Express 	<ul style="list-style-type: none"> Bloodhound Galaxy Quest Amazing Islands Digital Dragons' Den
	<ul style="list-style-type: none"> Roll Up, Roll Up: theme overview (PDF) Shipwreck: theme overview Worth Repeating: theme overview 	<ul style="list-style-type: none"> Musical Express: theme overview Trailblazers: theme overview Zeus: theme overview 	<ul style="list-style-type: none"> Amazing Islands: theme overview Bloodhound: theme overview Digital Dragons' Den: theme overview Galaxy Quest: theme overview
Make: Tools	Select, explain and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)	Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), developing in accuracy and appropriateness of tool selection.	Select, explain and accurately use tools for specific tasks.
	<ul style="list-style-type: none"> Roll Up, Roll Up! Shipwreck 	<ul style="list-style-type: none"> Prehistoric Planet Musical Express 	<ul style="list-style-type: none"> Bloodhound
	<ul style="list-style-type: none"> Roll Up, Roll Up: theme overview (PDF) Shipwreck: theme overview 	<ul style="list-style-type: none"> Musical Express: theme overview Prehistoric Planet: Theme overview 	<ul style="list-style-type: none"> Bloodhound: theme overview
Make: Materials	Select from and use a range of materials and components, including construction materials and textiles, according to their characteristics.	Select from and use a wide range of materials and components, including construction materials and textiles, beginning to consider material characteristics and appropriateness for task.	Select, use and combine a range of materials according to their functional properties and aesthetic qualities.
	<ul style="list-style-type: none"> Dinosaur Discovery Roll Up, Roll Up! Creepy Crawlies Twist and Shout 	<ul style="list-style-type: none"> Catastrophe Merlin Zeus 	<ul style="list-style-type: none"> Bloodhound Mummified What the Dickens?
	<ul style="list-style-type: none"> Creepy Crawlies: theme overview Dinosaur discovery: theme overview Roll Up, Roll Up: theme overview (PDF) 	<ul style="list-style-type: none"> Catastrophe: theme overview Merlin: theme overview Zeus: theme overview 	<ul style="list-style-type: none"> Bloodhound: theme overview Mummified: theme overview What the Dickens: theme overview

	<ul style="list-style-type: none"> Twist and Shout: theme overview 		
Make: Food preparation and cooking	Explore a broad range of food and food types beginning and simply prepare food for cooking. i.e. peel, chop and grate.	Measure, weigh and combine a range of ingredients to cook specific dishes.	Combine accurately measured ingredients using a range of techniques, i.e. mixing and kneading, to create and improve specific and own dishes.
	<ul style="list-style-type: none"> Brilliant Bodies 	<ul style="list-style-type: none"> It's Not Fair Merlin Savage Settlers 	<ul style="list-style-type: none"> Blitz
	<ul style="list-style-type: none"> Brilliant Bodies: theme overview 	<ul style="list-style-type: none"> It's Not Fair: theme overview Merlin: theme overview Savage Settlers: theme overview 	<ul style="list-style-type: none"> Blitz: theme overview
Evaluate: Existing products	Explore and evaluate a range of existing products.	Consider how existing products are suitable to their uses and how they could be developed to make them more useful.	Investigate and analyse a range of existing products considering audience and purpose.
	<ul style="list-style-type: none"> Blast from the Past Roll Up, Roll Up! 	<ul style="list-style-type: none"> Trailblazers Musical Express Savage Settlers 	<ul style="list-style-type: none"> Galaxy Quest Bloodhound Digital Dragons' Den
	<ul style="list-style-type: none"> Blast from the Past: theme overview Roll Up, Roll Up: theme overview (PDF) 	<ul style="list-style-type: none"> Musical Express: theme overview Savage Settlers: theme overview Trailblazers: theme overview 	<ul style="list-style-type: none"> Bloodhound: theme overview Digital Dragons' Den: theme overview Galaxy Quest: theme overview
Evaluate: Own products	Compare ideas and products with design criteria explaining how closely a final product matches the design criteria or plans.	Evaluate ideas and products against own design criteria and consider the views of others to make improvements.	Evaluate ideas and products demonstrating modifications as a result on ongoing evaluation.
	<ul style="list-style-type: none"> Roll Up, Roll Up! Amazon 	<ul style="list-style-type: none"> Trailblazers It's Not Fair 	<ul style="list-style-type: none"> Bloodhound Digital Dragons' Den
	<ul style="list-style-type: none"> Amazon: theme overview Roll Up, Roll Up: theme overview (PDF) 	<ul style="list-style-type: none"> It's Not Fair: theme overview Trailblazers: theme overview 	<ul style="list-style-type: none"> Bloodhound: theme overview Digital Dragons' Den: theme overview
Evaluate: Impact			Appreciate how key events and individuals in design and technology have helped shape the world.
			<ul style="list-style-type: none"> Bloodhound Digital Dragons' Den
			<ul style="list-style-type: none"> Bloodhound: theme overview Digital Dragons' Den: theme overview
Technical knowledge: Joining and structures	Build structures, exploring how they can be made stronger, stiffer and more stable.	Develop joining techniques such as using glue guns, struts and running stitches to strengthen, stiffen and reinforce structures of increasing complexity.	Apply understanding of how to strengthen, stiffen and reinforce more complex structures.
	<ul style="list-style-type: none"> Shipwreck Roll Up, Roll Up! 	<ul style="list-style-type: none"> Savage Settlers Catastrophe 	<ul style="list-style-type: none"> What the Dickens? Bloodhound
	<ul style="list-style-type: none"> Roll Up, Roll Up: theme overview (PDF) Shipwreck: theme overview 	<ul style="list-style-type: none"> Catastrophe: theme overview Savage Settlers: theme overview 	<ul style="list-style-type: none"> Bloodhound: theme overview What the Dickens: theme overview

Technical knowledge: Mechanisms	Explore and use mechanisms (for example, levers, sliders, wheels and axles), in products.		Understand and use mechanical systems in products (for example, gears, pulleys, cams, levers and linkages).
	<ul style="list-style-type: none"> Roll Up, Roll Up! 		<ul style="list-style-type: none"> Bloodhound Mummified
	<ul style="list-style-type: none"> Roll Up, Roll Up: theme overview (PDF) 		<ul style="list-style-type: none"> Bloodhound: theme overview Mummified: theme overview
Technical knowledge: Electricity		Create circuits to light a bulb and sound a buzzer. Design and build products incorporating circuits and motors.	Understand and use electrical systems in products (for example, series circuits incorporating switches, bulbs, buzzers and motors).
		Taught alongside Science in Year 4	<ul style="list-style-type: none"> Bloodhound
			<ul style="list-style-type: none"> Bloodhound: theme overview