

## Design Technology

NC Objective	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
design purposeful, functional, appealing products for themselves and other users based on design criteria	Autumn 2 Toys Summer 1 The Little Red Hen	Autumn 1 (Cinderella waterproof carriage) Spring 2 Bookmark for mum/world bookday				
generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Autumn 2 Toys Summer 1 The Little Red Hen	Summer (Fire of London) Use <a href="http://www.citycreator.com/build.city?city=3">http://www.citycreator.com/build.city?city=3</a> to create a new stone street in London				
select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Autumn 1 Geography Autumn 2 Toys Summer 1 The Little Red Hen	Autumn 1 (Carriages) Autumn 2 (Catapults) Summer (Tudor houses)				
select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Autumn 1 Geography Summer 1 Little red hen	Autumn 1 (Carriages) Autumn 2 Gingerbread Spring 1 Dinosaur fossil prints biscuits				
explore and evaluate a range of existing products	Autumn 2 Toys	Autumn 1 (Carriages)				
evaluate their ideas and products against design criteria	Autumn 2 Toys	Autumn 1 (Carriages) Summer 1 Fruit Kebabs –Eat a rainbow				
build structures, exploring how they can be made stronger, stiffer and more stable	Autumn 2 Toys	Summer (Fire of London) Creating a bridge ?				

explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products Y1?	Autumn 2 Toys Summer 1 The Little Red Hen	Autumn 2 (catapults) Autumn 2 (split-pin knights) Spring (moving dinosaurs)				
use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups			Autumn 1 (Victorian Toys) Autumn 2 (shadow puppets)	Autumn 1 – automata animals Summer 1 – Roman puppet		Autumn 2 – rag rugs Spring 2 – flood defences Summer 2 – 1960s bags
generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			Autumn 1 (Victorian Toys) Autumn 2 (shadow puppets)	Summer 1 – Roman puppet	Spring 1 – Viking Shields	Autumn 2 – rag rugs Spring 2 – flood defences Summer 2 – 1960s bags
select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately			Cutting - Autumn 1 (Victorian Toys) Autumn 2 (shadow puppets)	Autumn 1 – automata animals		Autumn 2 – rag rugs Spring 2 – flood defences Summer 2 – 1960s bags
select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities			Summer 2 (Themed food)	Autumn 1 – automata animals Autumn 2 – Stone Age art Summer 1 – Roman puppet	Cooking – ongoing (small groups each week)	Autumn 2 – rag rugs Spring 2 – flood defences Summer 2 – 1960s bags
investigate and analyse a range of existing products			Autumn 1 (Victorian Toys)	Summer 1 – Roman puppet		Autumn 2 Rag Rugs

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work			Autumn 1 (Victorian Toys) Autumn 2 (shadow puppets)	Autumn 1 – automata animals Autumn 2 – Stone Age art Summer 1 – Roman puppet		Ongoing in each DT module
understand how key events and individuals in design and technology have helped shape the world						Summer 1 and 2 through topic – 20 <sup>th</sup> Century Britain DT task – making a 1960s bag
apply their understanding of how to strengthen, stiffen and reinforce more complex structures			Spring 1 (Greek Temples)			Spring 2 – flood defences
understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]			Levers and Linkages Autumn 1 (Victorian Toys)	Autumn 1 – automata animals	Gears and Pulleys (Science Autumn 2)	
understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]				Summer 1 – Roman puppet		Some done through Electricity science in Autumn 1 – this element needs to be developed further next year

apply their understanding of computing to program, monitor and control their products						Summer term 2 in computing - control
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