

DT Curriculum Overview

Year/ Term 1	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1	Structures Freestanding structures			Food Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)	Mechanisms Sliders and levers	
Year 2				Mechanisms Wheels and axles	Textiles Templates and joining techniques	Food Preparing fruit and vegetables (including cooking and nutrition)
Year 3	Food Healthy and varied diet (including cooking and nutrition requirements for KS2)		Structures Shell structures (including computer-aided design)			Textiles 2D shapes to 3D shapes
Year 4	Mechanical systems Levers and linkages	Food Healthy and varied diets (including cooking and nutrition requirements for KS2)				Electrical Systems Simple circuits and switches (including programming and control)
Year 5	Electrical system More complex switches and circuits (including programming, monitoring and control)			Food Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)	Structures Frames structures Bridges	
Year 6	Food Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)	Mechanical systems Pulleys or gears			Graphic design?? T shirt making/printing	Textiles Combining different fabric shapes (including computer aided design)

(Projects on a page overall planning)

What makes a great DT project?

	6 DT principles	Key questions	Examples
USER	<p>User Pupils should have a clear idea of who they are designing and making products for, considering their needs, wants, values, interests and preferences. The intended users could be themselves or others, an imaginary or story based character, a client, a consumer or specific target group.</p>	<p>Who are the products for? Which products are appropriate for different age ranges and users? Why do certain users prefer certain products? What design criteria is needed to create a product that the user wants?</p>	<p>Year 1 - a chair for grandma Year 2 - a car for bear Year 3 - designing a new game cover for Nintendo Year 4 - Creating a pop up book for a new story Year 5 - A bridge to carry a tractor for Farmer Leon Year 6 - Designing a new school rucksack</p>
PURPOSE	<p>Purpose Pupils should be able to clearly communicate the purpose of the products they are designing and making. Each product they create should be designed to perform one or more defined tasks. Pupils' products should be evaluated through use.</p>	<p>Can children state what they products are for? Can children suggest the purposes or a range of existing products and evaluate how well they meet their purpose? What are you making and how will you design it? What design criteria is needed to create this product?</p>	<p>Year 1 - Range of chairs i.e. rocking chair, high chair, sofa, car seat Year 2 - Push car, electric car, remote control Year 3- Gameboy, playstation covers etc Year 4 - baby, children, graphic novel pop up books Year 5 - Structures and bridges around the world Year 6 - handbag, folder, rucksack, clutch bag etc</p>
FUNCTIONALITY	<p>Functionality Pupils should design and make products that work/ function effectively in order to fulfil users' needs, wants and purposes.</p>	<p>Can children explain how their products work? Do children understanding the difference between art (aesthetic) and design (for a purpose and function)? What vocabulary, knowledge and understanding is needed to ensure the product works well?</p>	<p>Year 1 - Can the chair take grandma's weight? Year 2 - Does the car fit bear inside and run? Year 3- Does the cover meet the client's needs? Year 4 - Does the pop up book have enough interesting for intended user? Year 5 - Is the bridge strong and wide enough for the tractor to pass over a body of water? Year 6 - Is the rucksack big and strong enough to hold books and school materials?</p>
DESIGN DECISIONS	<p>Design Decisions Pupils need opportunities to make their own design decisions. This allows pupils to demonstrate their creative, technical and practical expertise, and draw on learning from other subjects. Pupils decide on the form their product will take, how their product will work, what tasks or tasks it will perform and who the product will be for.</p>	<p>Can children make their own decisions? Can children discuss their design decisions that have been made in existing products? Can children be mindful of account users' needs when making decisions? Can children develop their technical and practical expertise in order that they can make informal design decisions?</p>	<p>Year 1 - What will it be made from and why? Year 2 - What does bear want for the car to suit him? Year 3 - What key information is needed? What needs highlighting in our game box? Year 4 - What is engaging for readers when they look at a popup book? Year 5 - What height does the bridge need to be at? What width? Why? Will it be a one-way bridge? Year 6 - What colour and form will your rucksack take? Why?</p>

INNOVATION	<p>Innovation When designing and making, pupils need some scope to be original with their thinking. Projects that encourage innovation lead to a range of design ideas and products being developed and are characterised by engaging open-ended starting points for learning.</p>	<p>Can pupils respond creatively and imaginatively to design briefs and problems? Can children learn to take creative risks? Can teacher learn to take creative risks in letting children decide their own designs without too much scaffolding and controlling?</p>
AUTHENTICITY	<p>AUTHENTICITY Pupils should design and make products that are believable, real and meaningful to themselves and others, set in a defined context.</p>	<p>Is the project meaningful to them and others? Can children work within a range of relevant contexts, ranging from domestic to industrial? Can children work towards credible outcomes that can be evaluated in use? Can children engage in activity that mirrors design technology in the wider world? Can children create products with a genuine purpose and for a real user? Can children create products which need to work in some ways in order to be successful?</p>

DT lessons can use these 6 principles to create at least 6 lessons across a term.

When planning as a team, ask each other....

- Do your lessons meet the 6 principles?
- Do the lessons include development and application of technical knowledge?
- What area of DT are you covering?
- Is it age-appropriate?
- What practical skills would be used?
- Have you made room for evaluation and critiquing at different stages?