

Year 6 Design and Technology Coverage

'As Designers, we plan, test and create so we can solve relevant problems to meet the needs of ourselves and those around us'

Unit:	In Their Footsteps	Facing the Challenge	London Calling
National Curriculum	<ul style="list-style-type: none"> Understand that mechanical systems have an input, process and an output. Understand how cams can be used to produce different types of movement and change the direction of movement. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Fabrics can be strengthened, stiffened and reinforced where appropriate.
Subject Focus	D&T topic - Cams Make a child's toy with moving parts	D&T topic - More complex switches and circuits We will make a tent alarm to protect valuables	D&T topic - Combining different fabric shapes (Using computer-aided design (CAD) in textiles - possible) We will design and make a waistcoat
Top Ten / Fab Five	<ul style="list-style-type: none"> We will learn about different types of movement:: rotary, oscillating and reciprocating We will identify different types of movement around us We will use pre-cut cams and observe their movement with a follower We will use a hand drill to make an off-centre cam and fix it accurately n a housing We will use what he have learned to make a child's toy with moving parts 	<ul style="list-style-type: none"> We will investigate a range of electrical sensors and switches We will rehearse our construction skills from previous years We will us tools to make secure electrical connections in circuits We (may) use some computer controlled circuits We will use what we have learned to make an electrical alarm to protect valuables. 	<ul style="list-style-type: none"> We will develop the skills of threading needles and joining materials We will make 2D patterns We will develop the skills of sewing materials We will learn how to measure and cut fabric accurately We will use what we have learned to design and make a waistcoat.
Unit specific Vocabulary	cam, snail cam, off-centre cam, peg cam, pear shaped cam, follower, axle, shaft, crank, handle, housing, framework, rotation, rotary motion, oscillating motion, reciprocating motion, annotated sketches, exploded diagrams	series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor, control, program, flowchart function, innovative, design specification, design brief, user, purpose	seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper

Year 6 Design and Technology Coverage



	mechanical system, input movement, process, output movement design decisions, functionality, innovation, authentic, user, purpose, design specification, design brief		design criteria, annotate, design decisions, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype
--	---	--	--