

Eynesbury Church of England Primary School
Design Technology Long Term Plan – based on Kapow
2026 – 2027 – Cycle A for KS2

	AUTUMN TERM 2026	SPRING TERM 2027	SUMMER TERM 2027	Notes
Reception	<p style="text-align: center;">Junk Modelling (x6) Investigating materials and construction techniques using junk modelling while developing scissor skills and joining methods. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Textiles - Bookmarks (x6) Developing fine motor skills through a range of threading activities before moving on to use a binka and a needle. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Structures (x6) Investigating the properties of materials through water play to discover which materials are waterproof and whether they float or sink. Cultural Capital opps British Values opps</p>	
Year 1	<p style="text-align: center;">Structures – Stable structures (x5) Investigating stable shapes and using an understanding of balance to discover how wide or heavy bases improve stability in freestanding structures Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Textiles – Simple stitches (x5) Examining fabrics, practising basic sewing techniques and identifying how different materials are made from threads. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Mechanisms – Wheels and axels (x5) Developing an understanding of how wheels, axles and axle holders work while practising cutting straight and curved shapes with scissors. Cultural Capital opps British Values opps</p>	
Year 2	<p style="text-align: center;">Mechanisms – Levers (x5) Investigating different types of levers and how they work in everyday mechanisms. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Cooking and nutrition – Balanced diet (x 5) Discovering the importance of a balanced diet and creating a tasty, balanced wrap to meet a design brief Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Structures – a chair for bear (x5) Investigating strong shapes and the properties of stiff and flexible materials by designing a chair inspired by the story ‘There’s a Bear on My Chair’. Cultural Capital opps British Values opps</p>	
Year 3	<p style="text-align: center;">Textiles – Cushions (x5) Learning how to use cross-stitch and appliqué when designing and making a cushion. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Mechanical systems: Pneumatic toys Investigating how compressed air can create movement within a mechanism and be used in a working pneumatic toy. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Digital world– Wearable technology (x6) Developing an understanding of programmable products by designing, coding and promoting wearable technology for use in low-light conditions. Cultural Capital opps British Values opps</p>	
Year 4	<p style="text-align: center;">Cooking and nutrition – Adapting a recipe (x 5) Adapting a basic biscuit recipe by adding or removing ingredients to make it suitable for a target audience – Christmas biscuit Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Electrical systems: Torches Applying scientific understanding of electrical circuits through designing and making a torch using recycled and reclaimed materials. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Digital world– Mindful moments timer (x6) Researching, designing and prototyping a Micro:bit timer. Cultural Capital opps British Values opps</p>	
Year 5 and 6	<p style="text-align: center;">Textiles – Stuffed toys/ Christmas tree decoration (x5) Developing textile and sewing skills by designing and making a stuffed toy using fabric and decorative techniques. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Electrical systems- Wobble bots (x5) Building on existing knowledge of circuits by introducing motors and exploring how they create movement in products. Cultural Capital opps British Values opps</p>	<p style="text-align: center;">Structures: Bridges Investigating different types of bridges and how structural strength is affected by shape and design. Cultural Capital opps British Values opps</p>	<p>Cycle B; ✓ Cooking and nutrition ✓ Mechanical systems ✓ Digital world</p>

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

EYFS

ELG: Creating with Materials

Children at the expected level of development will:

- ✓ Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- ✓ Share their creations, explaining the process they have used
- ✓ Make use of props and materials when role playing characters in narratives and stories

KS1 and KS2

Aims

The national curriculum for DT aims to ensure that all pupils:

- ✓ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- ✓ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- ✓ critique, evaluate and test their ideas and products and the work of others
- ✓ understand and apply the principles of nutrition and learn how to cook

KS1

Pupils should be taught to:

Design

- ✓ design purposeful, functional, appealing products for themselves and other users based on design criteria
- ✓ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- ✓ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- ✓ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- ✓ explore and evaluate a range of existing products
- ✓ evaluate their ideas and products against design criteria

Technical knowledge

- ✓ build structures, exploring how they can be made stronger, stiffer and more stable
- ✓ explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

KS2

Pupils should be taught to:

Design

- ✓ 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
- ✓ generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- ✓ select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- ✓ 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

Evaluate

- ✓ investigate and analyse a range of existing products
- ✓ evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- ✓ understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- ✓ apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- ✓ understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- ✓ understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- ✓ apply their understanding of computing to program, monitor and control their products

Eynesbury Church of England Primary School
DT Medium-term Plan
2026 – 2027

	Year 1	Year 2	Year 3	Year 4	Year 5/6
Autumn A 2026 (8 weeks)					
		Seesaws			Designing a stuffed toy/decoration
		Levers in action			Blanket stitch
		Scissors			Details and appendages
		Two levers together			Stuffed toy/ decoration assembling
		Everyday levers			Stuffed toy/ decoration assembling
					IOW WEEK
Autumn B 2026 (7 weeks)	Exploring stability		Cross stitch and appliqué	Existing biscuits	
	Building stable towers		Cushion design	Basic biscuits	
	Stabilising structures with weight		Decorating my cushion	Designing a biscuit	
	Designing a stable pencil pot		Assembling my cushion	Testing a new recipe	
	Making a stable pencil pot		Assembling my cushion	Evaluating biscuits	HILLTOP WEEK
	PANTO VISIT	PANTO VISIT	PANTO VISIT	PANTO VISIT	PANTO VISIT
Spring A 2027 (6 weeks)		Food groups	Exploring pneumatics	Electrical products	Circuits and motors
		Balanced meals	Drawing diagrams	Evaluating torches	Meet the Kapow Doodlers
		Preparing ingredients	Designing a pneumatic toy	Torch design	Exploring wobble bots
		Taste testing ingredients	Making a pneumatic toy	Torch assembly	Designing a wobble bot for a purpose
		Planning recipes	Finishing the toy		Making and evaluating a wobble bot
		Creating and evaluating wraps	Finishing the toy		Making and evaluating a wobble bot
Spring B 2027 (5 weeks)	What is fabric?				
	Making stitches				
	Designing bunting			SCHOOL TRIP - GRAFHAM RESIDENTIAL	
	Stitching a design				
	Finishing and evaluating bunting				
S u m m e r A 2		All about chairs	Evaluating wearable technology	Analysing timers	

		How does the shape of something affect its strength?	Light up wearables	Designing for the user	
		How does the thickness of a material affect its strength?	Programming wearable technology	Programming the timer	
		Making a chair for bear	Product concept	Prototypes	
		Evaluating, improving and finishing a chair for bear	Point of sale displays	Brand identity	
			Focus group	An exhibition	
Summer B 2027 (7 weeks)	Wheels				Arch and beam bridges
	Improving wheels – part 1				Spaghetti truss bridges
	Improving wheels – part 2				Building bridges
	SCHOOL TRIP	SCHOOL TRIP			Finalising bridges
	Designing a pull- along toy				Finalising bridges
	Making a pull-along toy				

July 2026: Kapow have not released:

- Textiles – Simple stitches – Year 1
- Structures – A Chair for Bear – Year 2
- Structures – Bridges – Years 5 and 6
- Electrical systems - Wobble bots – Years 5 and 6