

	Autumn Term	Spring Term	Summer Term
Area of DT	Electrical Systems	Mechanisms	Textiles
	Robots	Storybooks	Reusable bag
Lessons	Design (Y3) Begin to research others' needs, Show design meets a range of requirements, Describe purpose of product, Follow a given design criteria, Have at least one idea about how to create product, Create a plan which shows order, equipment, and tools, Describe design using an accurately labelled sketch and words, Make design decisions, Explain how product will work, Make a prototype, Begin to use computers to show design		Design (Y4) Use research for design ideas, Show design meets a range of requirements and is fit for purpose, Begin to create own design criteria, Have at least one idea about how to create product and suggest improvements for design, Produce a plan and explain it to others, Say how realistic plan is, Include an annotated sketch, Make and explain design decisions considering availability of resources, Explain how product will work, Make a prototype, Begin to use computers to show design.
	Make (Y3) Select suitable tools/equipment, explain choices; begin to use them accurately, Select appropriate materials, fit for purpose., Work through plan in order, Consider how good product will be, Begin to measure, mark out, cut and shape materials/components with some accuracy., Begin to assemble, join, and combine materials and components with some accuracy., Begin to apply a range of finishing techniques with some accuracy		Make (Y4) Select suitable tools and equipment, explain choices in relation to required techniques and use accurately, Select appropriate materials, fit for purpose; explain choices., Work through plan in order., Realise if product is going to be good quality, Measure, mark out, cut and shape materials/components with some accuracy., Assemble, join and combine materials and components with some accuracy., Apply a range of finishing techniques with some accuracy
	Evaluate (Y3) Look at design criteria while designing and making, Use design criteria to evaluate finished product, Say what I would change to make design better, Begin to evaluate existing products, considering how well they have been made, materials, whether they work, how they have been made, fit for purpose., Begin to understand by whom, when and where products were designed, Learn about some inventors/designers/ engineers/chefs/ manufacturers of ground- breaking products		Evaluate (Y4) Refer to design criteria while designing and making, Use criteria to evaluate product, Begin to explain how I could improve original design, Evaluate existing products, considering how well they've been made, materials, whether they work, how they have been made, fit for purpose., Discuss by whom, when and where products were designed., Research whether products can be recycled or reused., Know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products
Technical Knowledge	<ul style="list-style-type: none"> • Use simple circuit in product • Use number of components in circuit • Program a computer to control product 	<ul style="list-style-type: none"> • Select most appropriate tools / techniques • Explain alterations to product after checking it • Grow in confidence about trying new / different ideas. • Use levers and linkages to create movement • Use pneumatics to create movement 	<ul style="list-style-type: none"> • Join different textiles in different ways • Choose textiles considering appearance and functionality • Think about user when choosing textiles • Think about how to make product strong • Begin to devise a template

<i>Key Vocabulary</i>	Battery, Bulb, Buzzer, Cell, Component, Conductor, Copper, Design criteria, Electrical item, Electricity, Electronic item, Function, Insulator, Series circuit, Switch, Test, Torch, Wire	Aesthetic, Pages, Frame, Chassis, Design, Design criteria, Function, Graphics, Kinetic energy, Mechanism, Net, Structure	Aesthetic, Assemble, Bags, Recycling, Recyclable materials, Evaluation, Fabric, Fastening, Mock-up, Net, Running-stitch, Stencil, Target audience, Target customer, Template
<i>Cross-Curricular Links</i>	Science - Electricity	English – Writing instructions	Topic – Blue Planet. Recycling and using recyclable materials
<i>Deeper learning</i>	<ul style="list-style-type: none">• Explain what you could change and how it would improve your design?<ul style="list-style-type: none">• How would you change your design for the ‘real world’?• How effective at.... Is your...?		
<i>Tools and equipment</i>	Ruler, Craft knife, Recyclable materials, Paint, Switch, Wire, Bulb, Cell, Cell holder	Ruler, Craft Knife, Paper, Card	Recyclable materials, Scissors, Sewing kit