Design and Technology Progression Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Design products that have a clear purpose. Make products, refining the design as work progresses.	Design products that have a clear purpose. Make products, refining the design as work progresses and use software where appropriate.	Design with purpose by identifying opportunities to design. Refine work and techniques as work progresses, continually evaluating the product design.	Design with purpose by identifying opportunities to design. Refine work and techniques as work progresses, continually evaluating the product design.	Design products that are fit-for-purpose and could be aimed at individuals or groups. Make products through stages of prototypes, cross-sectional diagrams and computer-aided designs, making continual refinements.	Design products that are fit-for-purpose and could be aimed at individuals or groups. Make products through stages of prototypes, cross-sectional diagrams and computer-aided designs, making continual refinements.
Computing	Model designs using software (Teacher)			Control and monitor models using software designed for this purpose.		Use computer-aided design software to design what products will look like.
Materials	Cut and measure materials safely using tools provided. Demonstrate a range of cutting (tearing etc), joining (gluing) and shaping techniques. Measure and mark out to the nearest centimetre.	Cut and measure materials safely using tools provided. Demonstrate a range of cutting (tearing etc), joining (gluing or hinges) and shaping techniques.	Use a wider range of materials and components to perform practical tasks. Apply a wider range of appropriate measuring, cutting and shaping and joining techniques accurately (gluing)	Use a wider range of materials and components to perform practical tasks. Apply a wider range of appropriate measuring, cutting and shaping and joining techniques accurately (hinges or gluing)	Cut materials with precision and refine the finish with appropriate tools (sanding wood or precise scissor cutting). Show an understanding of the qualities of materials to choose appropriate tools to cut and shape. (eg saw cuts wood)	Cut materials with precision and refine the finish with appropriate tools (sanding wood). Show an understanding of the qualities of materials to choose appropriate tools to cut and shape.
Textiles		Shape textiles using templates. Join textiles using running stitch.			Join textiles to create objects with a combination of stitching techniques	Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles

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		Colour and decorate textiles using a number of techniques				
Electricals and electronics				Create series and parallel circuits		
Construction	Use materials to practise combining materials to make and strengthen products	Use materials to practice combining materials to make and strengthen products.		Choose suitable techniques to construct products or to repair items. Strengthen materials using suitable techniques.	Develop a range of practical skills to create products (cutting, gluing, sowing).	Develop a range of practical skills to create products (cutting, gluing)
Mechanics		Create products using levers, wheels and winding mechanisms.	Choose appropriate mechanisms for a product (hinges)		Convert rotary motion to linear using cams. Use innovative combinations of electronics (or computing) and mechanics in product designs.	
Evaluation	Explore objects and designs to identify likes and dislikes of the designs. Explore how products have been created and suggest improvements.	Explore objects and designs to identify likes and dislikes of the designs. Explore how products have been created and suggest improvements.	Identify some of the great designers in all of the areas of study to generate ideas for designs. Improve upon existing designs, giving reasons for choices. Disassemble products to	Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. Improve upon existing designs, giving reasons for choices.	Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. Create innovative designs that improve upon existing products. Evaluate the design of products so as to	Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. Create innovative designs that improve upon existing products. Evaluate the design of products so as to suggest improvements to the user experience.

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			understand how they work.	Disassemble products to understand how they work.	suggest improvements to the user experience.	