King George V Primary School

Curriculum Skills Progression Map

Subject Area: Design and Technology (D&T)

Skill	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Practical Skills - Food	I can cut ingredients safely and hygienically. I can assemble or cook ingredients.	I can cut, peel or grate ingredients safely and hygienically. I can measure or weigh using measuring cups or electronic scales.	I can prepare ingredients hygienically using appropriate utensils. I can measure accurately. I can follow a recipe. I can assemble or cook ingredients	I can prepare ingredients hygienically using appropriate utensils. I can measure ingredients to the nearest gram. I can assemble and cook ingredients (controlling the temperature of the oven or hob, if cooking).	I understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms). I can demonstrate a range of baking and cooking techniques.	I can measure accurately and calculate ratios of ingredients to scale up or down from recipe. I can create and refine recipes, including ingredients, methods, cooking times and temperatures.
Practical Skills - Materials	I can cut materials safely using tools provided. I can demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).	I can measure and mark out to nearest cm. I can demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	I can cut materials accurately and safely by selecting appropriate tools. I can select appropriate joining techniques.	I can measure and mark out to the nearest mm. I can apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).	I can cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).	I can show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper).

Practical Skills - Textiles	I can shape textiles using templates. I can colour and decorate textiles	I can join textiles using running stitch. I can colour and decorate textiles using a number of techniques	I understand the need for a seam allowance. I can join textiles with appropriate stitching.	I can select the most appropriate techniques to decorate textiles	I can create objects (such as a cushion) that employ a seam allowance. I can join textiles with a combination of stitching techniques (e.g. back stitch for seams and running stitch to attach decoration).	I can use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).
Practical Skills – Electricals and Electronics	I can recognise if a battery operated device works or not.	I can diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	I can create series circuits.	I can create parallel circuits.	I can create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).	I can create circuits using electronics kits that employ a number of components with increasing confidence.
Practical Skills – Computing		I can model designs using software	I can control and monitor models using software designed for this purpose.	I can control and monitor models using software designed for this purpose.	I can write code to control and monitor models or products.	I can write code to control and monitor models or products.
Practical Skills – Construction	I can use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.		I can choose suitable techniques to construct products or to repair items.	I can strengthen materials using suitable techniques.	I can develop a range of practical skills to create products (e.g cutting, drilling and screwing, nailing, gluing, filling and sanding).	I can develop a range of practical skills to create products.
Practical Skills – Mechanics	I can create products using levers and wheels.	I can create products using winding mechanisms.	I can use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).	I can use scientific knowledge to choose appropriate mechanisms for a product.	I can convert rotary motion to linear using cams.	I can use innovative combinations of electronics (or computing) and mechanics in product designs

To design, make, evaluate and improve	I can design products that have a clear purpose and an intended user.	I can make products, refining the design as work progresses. I can use software to design.	I can design with purpose by identifying opportunities to design. I can make products by working efficiently (such as by carefully selecting materials). I can refine work and techniques as work progresses, evaluating the end product design.	I can design with purpose by identifying opportunities to design. I can make products by working efficiently I can refine work and techniques as work progresses, continually evaluating the product design. I can use software to design and represent product designs.	I can design with the user in mind, motivated by the service a product will offer. I can make products through stages of prototypes, making continual refinements. I can ensure products have a high quality finish, using art skills where appropriate.	I can design with the user in mind, motivated by the service a product will offer (rather than simply for profit). I can use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
To take inspiration from design throughout history	I can explore objects and designs to identify likes and dislikes of the designs. I can suggest improvements to existing designs.	I can explore objects and designs to identify likes and dislikes of the designs. I can suggest improvements to existing designs. I can explore how products have been created.	I can identify some of the great designers in all of the areas of study to generate ideas for designs. I can improve upon existing designs, giving reasons for choices.	I can identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. I can disassemble products to understand how they work.	I can combine elements of design from a range of inspirational designers throughout history. I can create innovative designs that improve upon existing products.	I can combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. I can evaluate the design of products to suggest improvements to the user experience.