St Mary's C of E Primary School **Curriculum Progression – Design and Technology- MATERIALS (Woodwork and Textiles)**

Pupils are assessed on their knowledge and historical enquiry skills through their study of the Big Ideas across historical periods and events. In this progression grid, expected knowledge and skills in each year group are colour-coded. The skills are based on the National Curriculum. What we want the children to know, understand and remember is based on our curriculum maps.

SKILLS **KNOWLEDGE & UNDERSTANDING**

Year	**Vocabulary**	**Assessment Opportunities**	***Big Idea 1*** **Skills and expertise** I learn and apply practical and technical skills.	***Big Idea 2*** **Design** I use my creativity ad experimentation to design new products and solve problems in the real world.	***Big Idea 3*** **Evaluate** I evaluate my designs and products in order to improve them.
1	Assemble Design Evaluation Template test	Research Design Make Evaluate	Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. Use a range of simple tools to cut, join and combine materials and components safely.	Create simple designs for a product. Build structures exploring how they can be made stronger, stiffer and more stable.	Verbally evaluate their ideas and products against design criteria
2	Axle Axle holder Design Evaluation Fix Mechanic Mechanism Model Test wheel	Research Design Make Evaluate	Choose appropriate tools, equipment, techniques and materials from a wide range. Safely measure, mark out, cut and shape materials and components using a range of tools. Generate, develop, model and communicate his/her ideas through talking, drawing templates, mock-ups and, where appropriate, information and communication technology.	Design purposeful, functional, appealing products for himself/herself and other users based on design criteria. Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. Explore and use mechanisms e.g. levers, sliders in his/her products . Generate, develop, model and communicate his/her ideas through talking, drawing templates, mock-ups and, where appropriate, information and communication technology.	Evaluate and assess existing products and those that he she has made using a design criteria.
3	Accurate Running stitch Decorate Detail Fabric Seam template	Research Design Make Evaluate	Safely measure, mark out, cut, assemble and join with some accuracy.	Create designs using annotated sketches and cross-sectional diagrams. Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

4	Design criteria Evaluation Frame structure Function Inspiration Reinforce Stable/strong Structure Target customer Texture theme	Research Design Make Evaluate	Use techniques which require more accuracy to cut, shape, join and finish his/her work. Use his/her knowledge of techniques and the functional and aesthetic qualities of a range of materials to plan how to use them.	Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience	Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user.
5	Accurate Annotate Blanket stitch Design criteria Detail Evaluation Fabric Sew Shape template	Research Design Make Evaluate	Create prototypes to show his/her ideas. Make careful and precise measurements so that joins, holes and openings are in exactly the right place.	Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product. Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques.	Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work
6	Accurate Assembly design Bench hook Clamp Diagram Dowel Finish Function Mark out Measure Mechanism Model Research saw	Research Design Make Evaluate	Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities. Apply his/her understanding of computing to program, monitor and control his/her product.	Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional diagrams. Use technical knowledge accurate skills to problem solve during the making process. Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products.	Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made.