St Leo's and Southmead Catholic Nursery and Primary School

DT Progression of Skills updated 2022

Reception ELG	Expressive Arts and Design 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.					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Autumn	Pop up Christmas cards Mechanisms Sliders and Levers	Puppets Textiles Templates and Joining	Cushions Textiles 2D to 3D product	Biscuit Boxes Structures Shell structures	Cams Mechanical Systems Cams	Tudors Cakes / Soup Food Celebrating culture and seasonality
Spring	Fruit Kebabs Food Fruit and Vegetables	Moon Buggy Mechanisms Wheels and axles	Toasties Food Healthy and varied diets.	Torches and Lamps Electrical systems Simple programming and control	Bird Hides Structures Frame structures	Soft toy Textiles Using CAD
Summer	Playgrounds Structures Free standing	What veg can you put on your sandwiches? Food Fruit and Vegetables	Moving Monsters Mechanical Systems Pneumatics	Pizza Food Healthy and varied diets.	Anglo Saxon Bread Food Celebrating culture and seasonality	Lights Electrical systems Monitoring and control
Food	Talk about what they eat at home and begin to discuss healthy food. Say where some food comes from and give examples of food that is grown. Use simple tools with help to prepare food safely.	Understand the need for a variety of food in a diet. Understand that all food has to be farmed, grown or caught. Use a wider range of cookery techniques to prepare food safely.	Talk about the different food groups and name food from each group Understand that food has to be grown, farmed or caught in Europe and the wider world. Use a wider variety of ingredients and techniques to	Understand what makes a healthy and balanced diet and that different foods and drinks provide different substances the body needs to be healthy and active. Understand seasonality and the advantages of eating seasonal and locally produced food.	Understand the main food groups and the different nutrients that are important for health. Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/ tasty to eat.	Confidently plan a series of healthy meals based on the principles of a healthy and varied diet. Use information on food labels to inform choices.

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			prepare and combine ingredients safely	Read and follow recipes which involve several processes, skills and techniques. Use knowledge of existing products design a functional and appealing product for a particular purpose and audience.	Select appropriate ingredients and use a wide range of techniques to combine them.	Research, plan and prepare and cook a savoury dish, apply-ing their knowledge of ingredients and their technical skills.
	Create simple designs for a product. Use pictures to de-scribe what they want to do. Select from and use a range of tools and equipment to preform practical tasks eg cut-ting, shaping, joining and finishing. Use a range of simple tools to cut, join and combine materials and components safely.	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate themselves through talking, drawing, templates, mock up and where appropriate, information and communication technology.	Use knowledge of an existing product to design their own functional product. Create designs using annotated sketched, cross sectional diagrams and simple computer programmes. Safely measure, mark out, assemble and join with accuracy. Make suitable choices from a wider range of tools and	Create designs using exploded diagrams. Use techniques which require more accuracy to cut, shape, join and finish their work. Eg cutting internal shapes, slots in frameworks. Use their knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them. Consider how existing products and their own finished products might	Use their research into existing products and their market research to inform the design of their innovative product. Create prototypes to show their ideas. Make careful and precise measurements so that joins, holes and opening are exactly the right place. Produce step by step plans to guide their making	Use research they have done into a famous designer and inventor to inform the design of their innovative products. Generate, develop, model and communicate their ides through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and CAD. Apply their knowledge of

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	Ask simple question about existing products and those that they have made. Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanism e.g levers, sliders, wheels and axles in their products.	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. Evaluate and assess existing products and those that they have made using a design criteria. Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. Use wheels and axles in a product.	unfamiliar materials and plan out the main stages of using them. Investigate and analyse existing products and those they have made, considering a wide range of factors. Strengthen frames using diagonal struts. Understand hoe mechanical systems work such as levers and linkages or pneumatic systems create movement.	be improved and how well they meet the needs of the intended user. Apply techniques they have learnt to strengthen structure and explore their needs. Understand and use electrical systems in products.	demonstrating that they can apply their knowledge of different materials, tools and techniques. Make detailed evaluations about existing products and their own considering the views of other to improve their work. Build more complex 3D structures and apply their knowledge of strengthening techniques to make them stronger and more stable. Understand how to use more complex mechanical and electrical systems.	materials and techniques to refine and rework their product to improve its functional properties and aesthetic qualities. Use technical knowledge accurate skills to problem solve during the making process. Use their knowledge of famous designs to further explain the effectiveness of existing products and products they have made. Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately.