Design & Technology- Substantive Knowledge Map

Unit	Year 6	Vocabulary	Retrieval Opportunities
Food Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)	**Fruit Crumble** - To understand and apply the principles of a healthy and varied diet - Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet - Become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] - To understand the source, seasonality and characteristics of a broad range of ingredients - To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. - To generate, develop, model and communicate their ideas through discussion and annotated sketches. - Select from and use a wider range of materials and components, including ingredients, according to their functional properties and aesthetic qualities. - Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble design specification, innovative, research, evaluate, design brief	Using rulers, pencils and scissors accurately- measuring to the nearest mm Homework and seasonal activities Additional cooking and preparing food for school events
Textiles Combining different fabric shapes	**Fabric toy with applique and decorative stiches** **Designing** • Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.	computer aided design (CAD), computer aided manufacture (CAM) font, lettering, text, graphics, menu, scale, modify, repeat, copy, flip	

(including computer-aided design)	• Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design. • Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. **Making** • Produce detailed lists of equipment and fabrics relevant to their tasks. • Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. **Evaluating** • Investigate and analyse textile products linked to their final product. • Compare the final product to the original design specification. • Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. **Technical knowledge and understanding** • A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. • Fabrics can be strengthened, stiffened and reinforced where appropriate.	design brief, design criteria, design decisions, innovative, prototype seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces names of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper annotate, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype	
Electrical Systems More complex switches and circuits (including programming, monitoring and control)	**Automatic Night Light** - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. - To generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional. - Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities. - Investigate and analyse a range of existing products. - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - To apply their understanding of computing to programme, monitor and control their products. - To understand and use electrical systems in their products.	series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor, control, program, flowchart function, innovative, design specification, design brief, user, purpose	