



# Design & Technology Learning Map



Year	Content: Food	Content: Resistant Materials
<b>Year 7 Skills</b>	Basic kitchen hygiene and safety Preparing to cook – mise en place. Basic knife handling – bridge and claw cut Safe use of basic kitchen equipment – grating, chopping, slicing Use of the cooker – hob/oven Rubbing in method Making a soft dough-Adding liquid to make a dough Handling and shaping raw meat Panneing – bread crumbing of chicken Portion control	<b>Graphics</b> Designing – Drawing skills. <b>The design process</b> CAD/CAM Sustainable issues. Hand tools and work shop equipment. Working independently. Health and Safety. Materials and processes. Cutting Sanding surface finishing Shaping Health and Safety in the workshop. Woods Sustainable issues. Joining materials Manipulating materials.  Textiles unit. Joining Fabrics: Sewing Standard Components
<b>Knowledge</b>	Understand and apply the principles of hygiene and safety. Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet. Learn 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] Understand the source and characteristics of a broad range of ingredients.	Identify and solve their own design problems and understand how to reformulate problems given to them. Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations. Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Test, evaluate and refine their ideas and products against a specification, considering the views of intended users and other interested groups  Design-Make-Evaluation. Health and safety in the Textiles studio and with equipment. Fabric, fibres and Yarns. (Understand how they are made prior learning homework then expand in class)

<p><b>Year 8 Skills</b></p>	<p>Understand and apply the principles of nutrition and health. Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet. Practice 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.)</p>	<p>Workshop equipment. Combining materials Gluing Service finishing Cutting, shaping Hand shaping tools. Research techniques. Research and analysis methods. Environmental issues. Finishing techniques. Veneers.</p> <p>Further development – hand stitch and machine stitch (decorative stitches) Design own template, cut and use own design to construct 3D item. Decorating – fabric pens / paints. Finishing – high quality standard.</p>
<p><b>Knowledge</b></p>	<p>Understand the source, seasonality and characteristics of a broad range of ingredients Continued kitchen hygiene and safety Improved confidence and competence in skills and routines. Introduction to nutrition Function and sources of main nutrients Micro and macro nutrients Sensory evaluation of food products Use of the oven/hob Modification of meals/dishes Handling of raw meat or alternatives Continued demonstration of basic equipment including electric mixer</p>	<p>Use a variety of approaches for example, to generate creative ideas and avoid stereotypical responses. Identify and solve their own design problems and understand how to reformulate problems given to them. Use research and exploration, such as the study of different cultures, to identify and understand user needs. Select from and use a wider, more complex range of materials, components and ingredients, considering their properties.</p> <p>Design – Make – Evaluation Techniques – expanding on embroidery stitches, independent use of equipment and competence in stitching. Yarns – embroidery threads, cotton. Fibres and fabrics – Expanding knowledge of types and uses of fabrics. Looking at sustainable fabrics.</p>
<p><b>Year 9 Skills</b></p>	<p>Demonstrate and consolidate food safety and hygiene Efficient use of time and resources. Comment upon the sources of food poisoning Types of contamination Signs and symptoms of food poisoning Cross contamination and how to prevent during food preparation. Important temperatures Enhanced practical skills and efficient use of kitchen equipment Shaping of dough Chilled desserts – layering of fillings</p>	<p>Students will use the design process to create a detailed study into the work of an existing artist or designer. Students will be introduced to a project outline. This will prepare students for GCSE 3D design.</p> <p>Annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools. Select from and use a wider, more complex range of materials, considering their properties Working with wood Combining materials Environmental concerns Storage solutions, Wood joints, Glues. Combining materials Consider function of products Manufacturing processes. Housings. Wood Joints Look at the work of existing designers and Artists</p> <p>Use of different media to produce range of sketches that can transfer to screen and Styrofoam print. Explore the transfer of images using transfer glue and other mediums. Further develop range of hand stitch techniques and use of free hand machine stitch. Work to improve CAD/CAM skills to stitch into samples. Explore various ways of dyeing materials- natural dyeing techniques, cold/hot water dyeing and tie dye. Layer materials, transferred images, screen/Styrofoam print, hand and machine stitch to produce a mixed media, rustic feel to finished Seascape inspired sample booklet. Evaluation.</p>

<p><b>Knowledge</b></p>	<p>Understand and apply the principles of nutrition and health          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]          Understand the source, seasonality and characteristics of a broad range of ingredients.          Comment upon the sources of food poisoning          Types of contamination          Signs and symptoms of food poisoning          Cross contamination and how to prevent          Important temperatures.</p>	<p>Test, evaluate and refine their ideas and products against a specification, considering the views of intended users and other interested groups.</p> <p>Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.          Properties of and working characteristics of different fabrics and fibres.          Fabrics and materials from different countries and cultures.</p>
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