Year 8 Curriculum Implementation: Design and Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge & Skills	Design and make a useful textile product for a client: •Fabric decoration - Direct Painting •Fabric decoration - Stencil Printing •Initial design ideas and development •Final design proposal •Make Templates and plan production	•Fabric decoration and embellishment •Construction using sewing machine •Manufactured Synthetic fibres theory •Natural Regenerated fibres theory	To create a small storage box for a client with CAD/ CAM decoration •Polymers – theory •Analysis of existing products •Initial design ideas •Development of design ideas •Mark out timber and cut to length •Mark out and cut lap joints	•Mark out and cut base •CAD design - lid decoration •Mark out and cut lid •CAM lid design •Manufacture of product •Manufacture of product •Review and Evaluation	•Food safety – preventing food poisoning •Peeling, grating, combining, frying, baking, rolling •Making and shaping a bread dough to make bread rolls and pizza •Analysing and improving own diet compared to the EatWell Guide	•Blending, cooking a meat sauce, creaming method •Understanding allergens •Interpreting food labels •Food waste •Using frozen and canned ingredients to cook to a budget
Links to prior learning	•Learnt that a pattern/template can be used many times and that this ensures consistency in size – Yr7 RM •Worked independently and systematically using a step-by-step plan to sequence their work – Yr7 Textiles, Design and RM •Used appropriately a variety of temporary and permanent joining techniques, using textiles – Yr7 Textiles •Used specified hand-tools and sewing machines to cut and join materials safely – Yr7 Textiles •Texture, e.g. rubbery, sandy, waxy, soft, rough, hairy, bumpy, and smooth – yr7 Textiles, Design, RM •Appearance, e.g. flat, dull, shiny, glitter – yr7 Textiles, Design, RM		•learnt how materials and components can be used – Yr7 RM, Tex, Design •used CAD/CAM to produce a simple component – Yr7 Design •joined and combined materials and components accurately in temporary and permanent ways – Yr7 Tex & RM •classified materials by their properties and sources- Yr7 Tex, RM, Design •considered basic surface finishes – Yr7 RM, Tex •considered physical properties – Yr7 RM, Tex, Design •become aware of how extraction, use and eventual disposal of some materials affect the natural environment •Yr7 RM, Tex, Design		• Vegetable knife skills taught in Y7 • Scone making y7 leads to bread making • Healthy eating taught in y7	• Melting method of cake making taught in y7
Assessment	•Generating and developing an idea for a client	•Made a useful product for a client	•Generating and developing an idea for a client	•Made a useful storage product for a client	•Time planning pizza making	•Making skills
Home learning	•Collect a range of images of existing products to inspire design work •Collect pictures from a variety of sources relating to a theme and produce a “Mood Board” •Look at costing of a product and associated mathematics •Spelling of technical words		•polymers worksheet- exam style questions • client research • product research •	•spellings • maths questions •	•Organise ingredients	•Food waste long question •Organise ingredients
Cultural Capital and extra-curricular opportunities	•Explore creative surface design: direct painting and stencil printing •Develop design thinking: from initial ideas to final proposals •Learn practical skills: templates, production planning, embellishment, and sewing •Understand fibres: synthetic, natural, and regenerated materials •Connect learning to fashion, textiles, and surface design industries •Appreciate responsible use of materials and sustainability		•Understanding different materials (timber, polymers) and their uses •Exploring how products are designed for function and style •Developing practical woodworking and joinery skills •Using CAD and CAM for creative digital design •Building creativity, problem-solving, and resilience •Evaluating designs against client needs and the need for quality •Linking traditional techniques with modern design practice		•Making food from different cultures - Polish potato cakes, Italian pizza and bolognese	•Making food from different cultures – Mexican burritos, Dutch Apple cake
Literacy	•Talk about ideas and explain choices of materials and techniques. •Use technical words correctly: stencil, embellishment, template, synthetic fibres, regenerated fibres. •Read instructions, diagrams, and templates to follow plans safely. •Write step-by-step plans and annotate designs. •Reflect on work: what went well, what was learned, and how to improve.		• Reading and interpreting design briefs • Using technical vocabulary (materials, tools, processes) • Annotating design ideas with explanations • Writing evaluations and justifications of design choices • Communicating ideas clearly through sketches and notes		• Reading and following a recipe • Tier 3 vocabulary – biological raising agent, fermentation,	• Reading and following a recipe • Tier 3 vocabulary – allergens, mandatory
Numeracy	•Measurement for seam allowances •Estimating, e.g. speculate on the amount of paper needed to produce templates •Timing stages of production •2D drawing, e.g. ideas and working drawing •Making templates/ patterns dot and cross paper		•Measuring and marking timber accurately •Calculating dimensions for lap joints and base •Applying scale in CAD designs •Estimating material requirements and minimising waste •Interpreting data on product performance and client needs		•Estimating timings for steps in a recipe •Measuring liquids accurately	•Measuring accurately – tsp, tbsp, ml, g
Careers Information, Education, Advice and Guidance (CEIAG)	•Fashion & Textile: Fashion designer, textile designer, costume designer, pattern cutter •Product & Manufacturing: Product developer, sewing technician, quality control, materials scientist •Sustainability & Ethics: Upcycling designer, ethical fashion advocate •Creative & Entrepreneurial: Craft entrepreneur, surface pattern designer, marketing & branding		•Design & Product Development: Product designer, industrial designer, CAD/CAM technician, prototype/model maker •Manufacturing & Craft: Furniture maker/carpenter, quality control •Creative & Entrepreneurial: Decorative designer, maker/craft entrepreneur		•Bakers and chefs	•New product development in food industry •Regulatory roles in food safety
Spirituality	•Appreciate wonder, textures, and creative effort. •Use imagination and problem-solving to create useful, original products. •Reflect on sustainability, ethical choices, and personal values.		•Pupils reflect on their creativity, skills, and resilience as they design and make. •They design for a client, considering how their work can meet others’ needs and add value •Exploring materials and processes inspires awe at creativity and the wider patterns of creation		•Appreciate the wonder of yeast making bread rise •Joy of cooking food for oneself and others	•Consider ethics of wasting food when others lack food security •Impact of food waste on the environment
How can parents support the curriculum?	•Talk with your child about design concepts, colours, patterns, and inspiration •Visit museums and galleries •Encourage planning of activities at home – transferable skills •Support practical work: Supervise safe use of paints, stencils, needles, and sewing machines if working at home •Explore materials: Discuss different fibres (synthetic, natural, regenerated) and their properties. •Reflect together: Encourage your child to think about sustainability, ethical material use, and how their everyday choices could be useful or meaningful •Celebrate creativity: Recognise effort, problem-solving, and personal expression		•If possible, supervise safe use of tools for measuring, marking, or simple construction at home •Talk about material properties and sustainable options in everyday products •Encourage reflection on what worked well and what could improve in situations. •Celebrate effort, creativity, and problem-solving skills		•Organise ingredients •Encourage students to make or adapt recipes again at home	•Organise ingredients •Discuss how food looks, tastes and smells