St Christopher's: *A Church of England Academy*

SUBJECT: Technology Curriculum Map

Please note: Courses are always under constant development as Technology is an ever-evolving subject but were correct at the review date.

Key Stage 3:

- Pupils arrive with minimal or certainly very diverse experiences of Technology.
- Classes are taught in mixed ability groups.

Year 7 Induction: After a three-lesson induction to Technology, including health and safety, pupils move round five specialist rooms with five different specialist teachers working with a wide range of different materials on a diverse range of tasks, designed to develop a broad and balanced curriculum. The starting point for each group will be different but the rotation the same. Accurate assessment data is created from two milestone assessments (designing and making). This assessment data is shared with the pupils towards the end of each module. Pupils each have an assessment booklet where they respond to teacher feedback and set targets for improvement for the next module of work. Each class's first teacher of the year mentors that class to ensure suitable progress is being made and communicates with parents.

Year	DT Induction Module (13/14 lessons)	Food Induction Module (13/14 lessons)	Graphics Induction Module (13/14 lessons)	Textiles Induction Module (13/14 lessons)	Dte Module (13/14 lessons)
7	**Task: Toy Vehicle Project** **Health and Safety** Safe use of marking-out tools (e.g. steel rule, marking gauge) Safe handling of hand tools: saws, files, rasps, abrasive papers Safe operation of power/bench tools and 3D printer Personal protective equipment: goggles, gloves, aprons **Workshop & Making Skills** Marking-out, wasting, abrading and finishing techniques Cutting and shaping materials (e.g. wood, plastic) Assembly methods: fixing components, glue/joinery techniques Integrating 3D-printed parts into the build Tool maintenance and safe storage **Design & Research Principles** **History & Manufacture**: overview of classic toy vehicles and production methods **Iterative Design**: stages of prototype, test, refine	**Task: Healthy balanced nursery school foods** **Hygiene and safety routines:** preparation for cooking – sanitiser, personal hygiene - hand washing, aprons, hair, high risk foods, food storage, the practice and science of washing up. Practical skills, bridge and claw cutting techniques, peeling, onion preparation, combining, blending, boiling, simmering, grilling, baking, grating, portion control, weighing and measuring. The safe use of knives, the hob, grill & oven. Enzymic browning in fruits and vegetables. The Eatwell Guide – dietary analysis & adapting recipes for health (extension – individual nutrients).	**Task: Fruity Air freshener** **Health & safety.** Introduction to typography, product analysis, Packaging symbols/logos, design skills, following a design specification & 2D design. Introduction to basic tools, CAD, development of colour/effects, lettering development, basic card modelling with accurate use of tools and equipment. Self-assessment of skills and evaluation. *Homework:* *1. Logo recreation* *2. Descriptive logos.* *3. Planning flow diagram.* 4. Test revision using the project knowledge organiser. **Assessment:** Milestone assessment 1: Final design idea. (Designing)	**Task: Clare Youngs inspired Animal Wall hanging.** **Health and Safety** How to use the sewing machine: threading up, safe use, basic stitching, plain seams, hems, applique. Mark- making Cutting with fabric scissors. Pining together for simple construction of wall hanging. Designer research and analysis of designer's work. Design idea communication and annotation – this is peer assessed. Evaluation of practical and design work. *Homework:* 1. *Key words -Wordsearch and spellings and definitions - tested.* 2. *Mark making work sheet.* 3. *Create a help sheet to explain one decorative technique.* *Extension: Plan of making for the wall hanging*	**Task: BuzzBot Desk-Crawler** **Health & Safety** Craft knives & hot-melt glue: safe cutting of card; glue-gun handling Electronics: coin-cell circuits, soldering irons, polarity awareness **Workshop & Making Skills** Soldering circuits. Using hot-melt glue safely for fixing motor/battery. Craft knives and safety rulers for nets Applying surface graphics **Design & Research Principles** Iteration: Multiple design ideas developed based on analysis Balance of Form and Function in produce design Biomimicry and analogous inspiration Basic electrical systems design **Idea Development & Communication** Hand-drawn annotated sketches of shell design and leg placement. **Testing, Refinement & Evaluation**

	User-Centred Design: understanding end-user needs, wants and desires **Project Planning,** project purpose, stages and research areas Analysis of design features, materials and construction techniques **Idea Development & Communication** Generating 2D sketch ideas Introduction to isometric 3D drawing on grid Annotation of design ideas against user needs Peer-assessment of concept drawings **Specification & Planning** Writing a clear design brief and specification Finalising dimensions, materials list and manufacturing plan **Testing, Refinement & Evaluation** Functional testing: wheels alignment, durability checks Refinement: adjusting design to improve performance Evaluation against the specification: written analysis with photographs **Assessment** End-of-unit online assessment (automatically marked) Practical evaluation of finished model **Homework** **Moodboard:** initial visual research into toy vehicles **Materials Research:** properties and suitability of chosen materials **Plan for Manufacture:** detailed step-by-step making guide **Revision:** prepare for end-of-unit assessment **Evaluation Draft:** write up an early evaluation of your prototype Milestone assessment 1: Design of vehicle Milestone assessment 2: Vehicle product	Planning – Ingredients, Equipment, Order of work, Timing, Health & Safety and Reasons for Choice. Sensory evaluation – 5 senses, description and profiling. Food science: Coagulation, gelatinisation, aeration Subject specific vocabulary. Pupil assessed tasks, marking and feedback. *Homework:* *Kitchen safety and hygiene – Spot the Hazards.* *The Eatwell Guide – individual dietary analysis.* *Designing, planning and preparing for practical work.* *Revision for test.*	Milestone assessment 2: Final air freshener (Making)	**Assessment:** Milestone assessment 1: Final design idea. (Designing) Milestone assessment 2: Final wall hanging (Making)	Prototype performance checks (straightness, stability). Recording speed tests and analysing surface effects. **Assessment Opportunities** Milestone 1 (Lesson 5): five annotated sketches Milestone 2 (Lesson 12): finished BuzzBot, ACCESSFM evaluation, Milestone 3 (Lesson 13): assessment **Homework** HW1: Biomimicry research HW2: Design iteration and development worksheet HW3: 3D Printing research HW4: Revision for assessment

Year 8 Progression modules: Pupils continue to move round five specialist rooms with five different specialist teachers working with different materials on a diverse range of tasks, designed to develop a broad and balanced curriculum. The starting point for each group will be different, but we aim to repeat the year 7 rotation pattern shown previously above. Accurate assessment data is created from two milestone assessments (designing and making). This assessment data is shared with the pupils towards the end of each module. Pupils each have an assessment booklet where they respond to teacher feedback and set targets for improvement. Each class's first teacher of the year mentors that class to ensure suitable progress is being made and communicates with parents.

Year	**DT Progression Module** (13/14 lessons)	**Food Progression Module** (13/14 lessons)	**Graphics Progression Module** (13/14 lessons)	**Textiles Progression Module** (13/14 lessons)	**DTe Progression Module** (13/14 lessons)

8	**Task: Iteratively Design a 'BUG HOTEL' and Produce a Prototype.** **Introduction & Context** **Class Task:** Teacher introduction to sustainability, 6 R's, and bug habitats. **Student Task:** Brainstorm/mind-map what a bug hotel is and why it matters. **Homework:** Research different bug hotel designs (bring 3 examples). **Completed Work:** Mind-map + annotated moodboard (research page). **Design Principles** **Class Task:** Learn design terms (proportion, balance, function, aesthetics). **Student Task:** Apply these terms to analyse existing bug hotels. **Homework:** Write short notes on how each principle might apply to their own design. **Completed Work:** Analysis sheet + written reflections. **Initial Ideas** **Class Task:** Sketch 2–3 different design concepts (using recycled materials, frame, and sections). **Student Task:** Annotate sketches with materials, sustainability links, and construction notes. **Homework:** Refine their strongest design with more detail. **Completed Work:** Design page with clear sketches + annotations. **Specification & Planning** **Class Task:** Write a design specification (what the bug hotel must do, materials, safety, sustainability, target audience). **Student Task:** Produce a step-by-step plan with tools required. **Homework:** Prepare a labelled diagram of their chosen design. **Completed Work:** Final design sheet + specification + plan. **Practical Construction** **Class Task:** Learn safe use of tools (saws, hammer, drill). **Student Task:** Build wooden frame with divider cross, then fill with chosen materials.	**Task: Healthy, balanced, school meals** Recap / reinforcement of year 7 food work – hygiene and safety, Eatwell Guide, practical skills and routines. Analysis of the task and school meals standards. Food Choices and reasons. Further development of knife skills to enable quick safe cutting of larger amounts and chopping. Sauce making, reduction sauces and starch-based gelatinised sauces (all-in-one). The science of gelatinisation. Hob control for frying, use of the microwave and revision of simmering, grilling and baking. Uses of types of rice and pasta (al dente). Rubbing in. Adapting recipes and balancing healthy family meals. Comparison of homemade and bought meals. International food influences, ingredients and traditions (UK, Indian, Italian, Thai, Spanish, Chinese, American etc). Understanding of ingredients such as herbs and spices, rice and pasta, alternative protein foods. Safe storage of food and cooking temperatures. Measuring and weighing. Sequencing practical work. Sensory evaluation and suggestions for improvement. Subject specific vocabulary.	**Task: Cereal Packaging** Task analysis / target market investigation, product analysis, theme inspiration, design ideas and branding gimmicks logo design and development, net design planning and layout, scale drawing, draft measurement drawing, final design idea, net (cereal box) construction. Study of Jon Burgerman illustration to inspire designs ideas. Legality of packaging. Self-assessment of skills and evaluation. *Homework:* 1. Logo analysis 2. Branding research 3. Puzzle ideas research 4. Google design 5. Evaluation 6. Test revision using the project knowledge organiser. **Assessment:** Milestone assessment 1: Final Layout designs. (Designing) Milestone assessment 2: 3D constructed cereal box (Making)	**Task: Soft Sculpture** Artist (Holly Levell & Kate Talbot) analysis and evaluation. Detailed design idea communication showing an understanding of fabric properties and appropriate decorative techniques. Recap of health and safety and the sewing machine. Trialling ideas practically for decoration and/or shape. Pattern making 2d to 3D with paper modelling. Complex construction. Planning/ time management for practical task. Sublimation printing and/or computerised embroidery. *Homework:* *1. Artist Research* *2. Flowchart (sequencing)* *3. Evaluation – comparing their product to an existing product.* **Assessment:** Milestone assessment 1: Final design idea. (Designing) Milestone assessment 2: Final soft sculpture (Making)	**Task: Bauhaus Inspired Phone Stand** **Health & Safety** Line bending: safe use of strip heater, gloves, and goggles. Soldering & electronics: eye protection, and safe jointing. Low-voltage circuits: safe use of wires, crocodile clips **Workshop & Making Skills** Sketching and annotating design ideas. 2D CAD for laser cutting. Line bending acrylic accurately. Soldering simple LED circuits. **Design & Research Principles** Iteration: sketch, prototype, test, and refine. User-centred design: stability, viewing angle, and ease of use. Material properties of acrylic: rigidity, bending, and light diffusion. Basic electronic systems: touch input controlling LED output. Bauhaus design principles: function, simplicity, and minimal form. Sensors - input, process and output **Idea Development & Communication** Hand-drawn annotated sketches of stand form and LED placement. 2D Design CAD design Peer critique on aesthetics, ergonomics, and stability. **Testing, Refinement & Evaluation** Mock-up testing for size, angle, and stability. Circuit testing in TinkerCAD and physical prototype. ACCESSFM evaluation and design reflection. **Assessment Opportunities** Milestone 1: annotated sketches and CAD profile. Milestone 2: bent stand and working LED circuit. ACCESSFM evaluation. Milestone 3: assessment **Homework** HW1: Bauhaus inspiration research.

	Homework: Reflection diary (what went well, what was difficult). **Completed Work:** Bug box prototype (practical outcome). **Testing & Evaluation** **Class Task:** Test stability, durability, and effectiveness of the bug hotel. **Student Task:** Peer-assess other designs. **Homework:** Write a self-evaluation (linking back to the design specification and 6R's). **Completed Work:** Evaluation sheet + photos of final product. **Reflection & Extension** **Class Task:** Present bug hotel to the class (short 1-minute pitch). **Student Task:** Reflect on sustainability learning and what could be improved. **Homework/Extension:** Suggest improvements or a second version (sketch or notes). **Completed Work:** Presentation feedback + extension design idea. TOOLS: Steel Rulers, Junior Hacksaws, Tenon Saws, Bench Hooks, Linisher, Drilling, Nailing, Screwing. This structure ensures students build progressively: **Research → Design → Plan → Make → Test → Evaluate.** Each stage produces **completed work** (sketches, plans, evaluations, prototype), plus **homework** tasks that deepen learning. Milestone assessment 1: Final design of Bug Hotel Milestone assessment 2: Bug Hotel	*Homework:* *Questionnaire* *Food Storage/ temperatures.* *Nutritionally balancing a meal* *Planning and preparation for practical work* *Revision*			HW2: Lasercutting research. HW3: TinkerCAD circuit with sensors. HW4: Revision for assessment.

Year 9 Specialism modules: Pupils select four modules from the five on offer, narrowing our wide breadth of study a little, in favour of greater depth of study. Technology teachers, parents and pupils are all involved in these important decisions. Each pupil therefore has their own personal rotation and does not necessarily stay in the same class all year. The three modules most important to the pupils are completed before the GCSE options process begins where possible. Accurate assessment data is created from two milestone assessments (designing and making). This assessment data is shared with the pupils towards the end of each module. Pupils each have an assessment booklet where they respond to teacher feedback and set targets for improvement. Each class's first teacher of the year mentors that class to ensure suitable progress is being made and communicates with parents.

Year	DT Specialism Module (Optional 13 or 14 lessons)	Food Specialism Module (Optional 13 or 14 lessons)	Graphics Specialism Module (Optional 13 or 14 lessons)	Textiles Specialism Module (Optional 13 or 14 lessons)	DTe Specialism Module (Optional 13 or 14 lessons)
9	**Task: Dyson Inspired Product Research section** Dyson Design 'DNA' Introduction to design brief and basic task analysis. Understand purpose of modelling. Product Analysis comparison of four different vacuum cleaners using ACCESSFM. Ergonomics and Anthropometrics – understand and apply ergonomics and apply anthropometric data. Design style Re-design: Pupils identify the Dyson design and re-design an everyday household product. Technical Drawing and Scaling: Pupils produce a scaled drawing, convert measurements. Blueprint and Sub-assembly planning – pupils break design into geometric forms and plan model. Modelling Techniques (Scoring, Folding, Cutting) Learn fundamental modelling techniques; use tools safely. Core Form Construction Build main body of product; follow structural plan. Sub-Assemblies: Cyclone, Handle, Bin Construct detailed components; attach accurately. Refinement & Surface Detail Improve proportion accuracy; add detail through layering. Final Assembly & Accuracy Checking	**Task : "Party in the Park" picnic or afternoon tea items** Recap years 7 and 8 work. Investigating the fermentation of yeast as a biological raising agent. Bread making – ingredient functions, dough formation, gluten development, use of yeast, shaping, ingredient and product ideas and choices, other bread products and Coeliacs. Investigating types of flour. Shortcrust pastry - ingredient functions, dough formation, shortening with different fats, investigating the proportions of fat used, shaping and ingredient and product ideas. Preparing, combining and shaping "Savoury reformed foods" – alternative protein foods and types of vegetarians. Binding and Coagulation. Chemical and physical raising agents in a batter recipe. Macronutrients – Carbohydrate, Fats and Protein (sources, functions, deficiency and excess). Energy balance. Generating ideas and time planning with special points and health and safety points. Sensory evaluation, suggestions for improvement and development ideas. Subject specific vocabulary.	**Task: Chocolate Box** Health & safety recap, analysis of the design brief/context, product analysis. Packaging function, paper and board clarification, weight measurements, construction processes, paper sizing, understanding uses and properties.3D drawing, Net/Surface development understanding and construction techniques for boxes. Adapting a design specification to a specific target audience. Net planning with measurements. Artist inspired geometric ideas. Geometric shape development and repeat design, Sketching ideas and annotation. Product labelling and consumer needs. Customer feedback to inform evaluation process. Self-assessment of skills. *Homework:* 1.Brand logo recreation and understanding. 2. 3D drawing of chocolate boxes. 3. Geometric repeat designs. 4. Target audience feedback & review. 5. Test revision using the project knowledge organiser. **Assessment:** Milestone assessment 1: Design ideas. (Designing) Milestone assessment 2: Final constructed chocolate box (Making)	**Task: Cushion for Life inspired by Edo Morales** Analysis and evaluation of the work of Chilean artist Edo Morales. Creating a portrait design using a variety of mark making techniques. Experimenting with hand embroidery, mark-making, tie-dye/spray dye and appliqué. Designing for a client of their choice. Design work – communication skills. Students work creatively and there is a greater emphasis on effective presentation. Health and safety and sewing machine recap. Construction methods and seam suitability testing (plain, French and overlocked). Cushion construction – including attaching fastenings. Evaluation of cushion, review/feedback. Ext: Sustainability, problems with the textiles and fashion industry. Watch clips from the 'True cost of Fashion' documentary. *Homework:* 1. *Designer analysis– Edo Morales. Find a suitable photograph to base portrait on.* 2. *Fast Fashion video clip with comprehension.* 3. *Research in Artist: Sue Stone.* **Assessment:** Milestone assessment 1: Final design idea. (Designing)	**Task: Neo-Futurist Lamp** **Health & Safety** Adhesives and finishing: safe sanding, painting, and ventilation. Electronics: soldering, safe breadboarding, wiring, and polarity awareness. **Workshop & Making Skills** Writing a design brief and specification. Sketching and modelling forms in Fusion 360. Laser cutting shade panels. Soldering. Prototyping and testing **Design & Research Principles** Neo-Futurism: fluid, dynamic, technology-inspired form. Basic electronic systems: LED circuits and capacitive-touch control. Sustainability and material choice. **Idea Development & Communication** Annotated sketches. ACCESSFM Client-centred design Annotated CAD models **Testing, Refinement & Evaluation** Refining CAD models and lamp structure. Circuit testing. Evaluation against specification.

	Compare model to drawings; refine accuracy. Milestone Assessment 2: Model Accuracy & Craftsmanship Present model for assessment; evaluate craftsmanship. *Homework:* *1. James Dyson Case Study* *2.Conservation Starter: Explain how products can start conversations e.g. Phillippe Starck 'my juicer is not meant to squeeze lemons'* *3. Diary of Making – record the making of your Dyson Model.* **Assessment:** Milestone assessment 1: Research: Dyson Case Study Milestone assessment 2: Design idea – 3D and orthographic with analysis Milestone assessment 3: Dyson product prototype/model. Product/making	Allergies and intolerances. *Homework:* *Researching design ideas* *Time Planning and preparation for making* *Seasonality* *Allergies and intolerances* *Revision*		Milestone assessment 2: Final Portrait Cushion (Making)	**Assessment Opportunities** Milestone 1: Design ideas and annotation Milestone 2: CAD models & development. Milestone 3: finished lamp and written evaluation. **Homework** HW1: Lamp analysis research. HW2: ACCESSFM analysis. HW3: 3D Printing Research. HW4: Objective 3rd party analysis

Key Stage 4: Eduqas Design Technology GCSE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
10	**Theory: Timbers and related processes** • Types and properties of timbers • Hand tools • Measuring • Wasting • Abrading • Finishing • Finger joint • Dovetail joints **Theory: CAD/CAM** • CAD/CAM • Laser cutting	**Theory: Polymers and related processes** • Types and properties of polymers • 3D printing • Extrusion • Vacuum forming **Theory: Design development, 3D modelling and working drawings** • Design iteration • Fusion 360 3D modelling • Rendering	**Theory: Metals and related processes** • Types and properties of metals • Tools and processes • Brazing • Turning • Bending • Hardening **Project task:** • Modular aluminium desk rail	**Project task:** Mock NEA • Pupils introduced to the format of the NEA and a 'mock' NEA brief is given. Pupils will then sample pieces of work from each section of the NEA to prepare them for the real NEA later in the year. • Example folders • Task analysis • Product analysis	**Project:** Mock NEA (cont) **Theory: Design iteration and development** • Rapid prototyping • Modelling • The work of others • Analysis • Client involvement in design process **Theory: Mechanical devices, electronics and designing for functionality**	**Theory: Surface treatments and finishes** • Types of surface finish and treatment available for each material group • Preparation of materials • Finishes for timber, metals and polymers **Theory: Quality control** • Process time

	Project task: Storage box Pupil's design and make a timber storage box using traditional hand tools and processes. The box includes finger joints, dovetail joints and butt joints as appropriate. The basic design can be adapted to suit a variety of purposes and pupils are challenged to improve and modify the design to suit their individual needs. Quality, accuracy and foundational practical skills are the key objectives of this task. Pupils are introduced to the process of laser cutting and all create a 2D design which would be laser cut out of acrylic and then attached to their storage box.	• Working drawings **Project task: Lasercut line bent clock** Pupil's research and design a lasercut clock based on a design movement of their choice. • 2D Design design development • Nets to object theory • Design movements and their impact • From design to reality • Lasercutting process including health and safety	organiser, modelled in • Modules modelled in Fusion 360 • Modular design theory • Aluminium drilling and shaping • 3D printing practice and theory **Work experience (2 wks.)**	• Specification and Brief writing • Design ideas • Design development • Fusion 360 3D modelling	• Forces, stresses and structural integrity • Electronic circuits • Systems thinking • Electronic components • Microcontrollers • Sensors • Making products 'smart' **Revision:** Exam week written assessment	• Dimensional accuracy • Depth-stops, go/no go fixtures • Tolerances • Registration marks • CAD/CAM settings **Introduction to NEA** • Example folders • The purpose and flow of the NEA • Final words of advice and guidance • Task analysis • Research
11	**NEA Section A (cont.)** Task analysis & Research **NEA Section B** Specification and Brief **NEA Section C** Design ideas **HW Revision topics:** • Common specialist technical principles • Papers and boards • Timber based materials • Metal based materials	**NEA Section C (cont.)** Design ideas **NEA Section D** Design development **HW Revision topics:** • Polymers • Textile based materials • Electronic systems • Materials and their working properties	***PPE written examination*** **NEA Section E** Realisation of design **NEA Section F** Evaluation **HW Revision topics:** • New and emerging technologies • Energy, materials, systems and devices • Designing principles • Making principles	**Revision in lessons covering subject knowledge gaps highlighted by analysis of PPE performance and review of NEA content.**	**Public examinations**	

Key Stage 4: Eduqas Food Preparation and Nutrition GCSE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
10	**Topic 1: Fruits & Vegetables** • Types / classification • Herbs and spices	**Topic 2: Dairy Products** • Types / classification • Primary & secondary processing		**Topic 3: Cereals** • Types / differences • Staple foods	*Exam week – PPE revision and written assessment and PPE NEA 2 task.*	**Topic 4: Protein foods** • Meat, poultry, fish, eggs, pulses, nuts

	• Provenance – production, food miles, seasonality, organic, harvesting, processing, packaging (bagged salad) • Quality Assurance - fairtrade, organic, red tractor, farm assured. • Preservation – jams, curds, pickles & chutney • Stir fry technique. • Nutritional importance / 5-a-day • Vitamins and Minerals • Oxidation and Enzymic browning • Emulsions and Emulsification • Types of potato and alternative cooking methods • Storage – ambient, chilling & freezing, stock rotation, use by & best before dates. • Use of leftovers. • Cooking methods, effects • Key temperatures **Practical tasks:** Salads dressings and emulsions Stir fries and stir fry technique. Stuffed vegetables to use up leftovers Jam chutney curds and pickles Filo pastry – spring rolls, samosas, parcels or strudel	• Processing of milk, cream, yogurt and cheese – emulsions, bacteria, enzymes and foams • Animal rearing – local v national, pricing • Preservation of milks and dairy • Nutritional values • Fats – saturated and unsaturated and energy balance • Allergy, intolerance, bone health and heart health • Storage • Effect of cooking • Storage – ambient, chilling & freezing, stock rotation, use by & best before dates. • Key temperatures **Practical tasks:** Batters – pancakes, clafoutis, Yorkshire pudding, toad in the hole. Choux pastry – profiteroles, eclairs, choux rings, choux buns Souffles and mousses Custards and Ice cream *Work experience (2 wks.)*	• Provenance – grown harvested and used • Primary & secondary processing • Nutritional values • Carbohydrates and energy balance • Gluten & intolerance (coeliac) • Raising agents – biological, chemical and mechanical • Functional properties of wheat flour • Storage, prevention of food poisoning **Practical tasks:** Cake making Bread making Flaky pastry Pasta making Roux sauce - gelatinisation Cooking with other cereal grains		and seeds, alternatives • Sustainability • Animal rearing – local v national, environmental cost • Processing • Nutritional values • Proteins – HBV & LBV • Eating nose to tail • Traceability and food quality assurance schemes • Functions of eggs and other proteins – aeration, coagulation, emulsification, binding, enriching, etc • High risk foods – Food spoilage, Cross contamination and storage • Critical temperatures • Marinades **Practical tasks:** Butchering chicken – Kiev's, Cordon beau, tray bakes, sticky chicken wings, soup and stock Filleting fish – fishcakes, fish bake Meringues – Lemon meringue pie, Pavlova, Baked Alaska, Eton mess Baked egg custard / quiche Alternative proteins
11	**NEA 1 – Investigative assessment** (Exam board set - released 1st September each year) *Homework:*	**NEA 2 – Section A** research and planning (Exam board set - released 1st November each year) *PPE examinations – written paper*	**NEA 2 – Section B** practical assessment **NEA 2 – Section C** evaluation *Homework:*	**Revision** • Nutrition • Functions of ingredients • Diet and Health	Public examinations

	Research, thinking out, planning trialling and collecting feedback.	*Homework:* *Research, thinking out, planning trialling, preparing resources and collecting feedback.*	*Research, thinking out, trialling, preparing resources and planning*	• Temperature control • Food Provenance • Food commodities	

Key Stage 4: AQA Art and Design: Graphical Communication GCSE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
10	Project 1: **Natural and Organic drink project** Understanding the course objectives. Annotation guidance, Analysis mind map, Primary fruit, Photographs, Stylising images. Fruit observation and stylising, logo theory. Lettering development. Material experiments. Photography, Introduction to Serif photo Image/ PowerPoint manipulation. *Homework:* Mind map Observational Drawing Artist research Colour Theory Stylised Drawing College Development Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	Project 1: **Natural and Organic drink project** Existing products analysis. Branding & advertising. Typography design. Logo design and development. Colour development. Layout development Final design *Homework:* Logo Research Artist Research Branding Research Drinks labelling Research Annotation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	Project 2: **Music Promotion** Product analysis, Band research Inspirational research, Legality packaging information, Artist research, recreations, computer design, illustration, development, Final design *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours) Work experience (2 wks.)	Project 2: **Music Promotion** Typography designs, Layout design, Final design, Construction of final product, Presentation layout and promotional product designs. *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	**Cultural Restaurant** main project 60% of grade Analysis mind map, Inspiration/theme board, Typography designer exam prep hand drawn ideas Development of typography with lettering, colour. Theme investigation Exam week assessment Typography designs *Homework:* *Students will spend a half an hour of project work for each* lesson on independent study (2 weeks 2.5 hours)	**Cultural Restaurant** main project 60% of grade Theme research, Primary & Secondary, artist research, recreations and development. Food artist and a cultural context relating to a starting point. Menu, Packaging research, design ideas & development leading to final outcomes. *Homework:* *Students will spend a half an hour of project work for each* lesson on independent study (2 weeks 2.5 hours)
11	**Street Art Take Out** main project 60% of grade artist/designer 2 research and development. Artist/designer research x2 personal response and development of ideas based	**Street Art Take Out** main project 60% of grade Design ideas, development of ideas relating to final outcomes, final designs and constructed outcomes.	*External set exam Project 40%* *PPE examinations* *Students choice a starting point from the externally set projects 2nd Jan release.*	*External set exam Project 40%* *Homework:* Students work on individual projects with teacher guidance.	*External set exam Project 40%* Set 10 hours (2 Days) Students complete ideas ready for exam. *Homework:*	Public examinations Students have completed the course at this point

	upon artist inspiration, own designs inspired by artists *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	*Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	*Personal prep period to investigate ideas using artist and designer inspiration.* *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	

Key Stage 4: AQA Art and Design: Textile Design GCSE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
10	**Travel & Memories Project** Understanding the course objectives. Annotation guidance, Analysis mind map, Primary Photographs of a variety of memories of childhood, travel, home or local environment. Sketching observational and stylising. Free machine embroidery Hand embroidery Applique Transfer printing with transfer dyes and sublimation. Artist/Designer – Cas Holmes research and recreation samples. *Homework:* Mind map Primary images of memories/travel Observational Drawings Artist/Designer research Writing notes for how experimental samples were created and evaluating them fully, suggesting ways of how to further refine ideas.	**Travel & Memories Project** Mark making CAD repeat printing techniques using PowerPoint – sublimation printing and further 3D manipulation. Artist research - 1 other designer/artist plus Cas Homes minimum per student will be fully explored and analysed along with experimental samples. **Milestone assessment 1 based on Cas Holmes Research & Analysis page.** Developed ideas – sampling experiments. Design ideas. Final design. Making the final wall hanging/panel. Design boards for display. **Milestone assessment 2 based on samples, design ideas and final outcome for project.** *Homework:* Mid project evaluation. Artist Research Annotation including analysis and evaluation.	**Surfaces Project** Project analysis mind map and proposal. Primary images of interesting surfaces these could be natural or man made. Paint/dye techniques, brusho, freehand embroidery, dissolvable fabric, cotton paper, heat press, transfer dye. Homework: Photographs of interesting surfaces (primary images) Artist Research Annotation including analysis and evaluation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	**Surfaces Project** (main project 60% Grade) Artist/designer research x4 in total, artist responses, developed ideas. Experimenting with a range of different meltable fabrics such as Tyvek, lutradur and polyester voiles. Safe use of heating tools will be taught and pupils will experiment. **Milestone assessment 3 based on artist research, samples, developed ideas/samples do far for project.** *Homework:* Mid project evaluation. Artist Research Annotation including analysis and evaluation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	**Surfaces Project** (main project 60% Grade) Continue with Artist/designer research and experimental samples and development. Fabric manipulation: pleats, tucks, piping, slashing, quilting, applique etc. Laser cutting. Techniques taught may also depend on the artist/designers who have been chose by the pupils. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)* *Homework:* *Artist Research* *Annotation including analysis and evaluation.*	**Surfaces Project** (main project 60% Grade) Ongoing surfaces project – pupils will work independently to explore a variety of different surfaces of their choice. Pupils need to have fully researched and explored 4 artists or designers with fabric samples that recreate their work and developed samples that include their own ideas. Modelling on mannequin (or 3D models if not fashion outcome) to start to formulate initial design ideas – these will be photographed and annotated. ***Exam week assessment: Pupils will produce artist samples for assessment. The number of which will be determined by which techniques and/or artist they are studying.*** *Homework:* Artist Research

	Students will spend a half an hour of project work for each lesson on independent study (Over 2 weeks - 2.5 hours*)*	Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*				Annotation including analysis and evaluation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*
11	**Surfaces project** Students will complete initial ideas over the summer break and spend the first 6 lessons creating detailed design ideas which will be developed into a final design. Students will produce: Design ideas Developed ideas Final design. These will be presented and annotated in their sketchbook. *Homework:* Further Artist/designer Research Photographs of surfaces to aid development Annotation including analysis and evaluation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	**Completion of Surfaces project.** This term focusses on the making of the final product/outcome for the Surfaces project – whatever that may be for each student. **Milestone assessment: Final outcome for Surfaces Project** *Homework:* Making diary/log. Annotation including analysis and evaluation. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours*)*	***External set exam Project 40%PPE examinations*** Students choose a starting point from the externally set projects 2nd Jan release. Personal prep period to investigate ideas using artist and designer inspiration. *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	***External set exam Project 40%*** Students will complete ideas through experimental sampling and drawing ready for exam. The ideas will develop into a final design for their final outcome which they will produce in the practical examination. **Milestone assessment: Externally set assignment marked and progress reviewed.** *Homework:* Students work on individual projects with teacher guidance. They will need to research a theme, take photographs, study the work of artists/designers. Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	***External set exam Project 40%*** The examination - 10 hours (2 Days) will take place this term. Students will be fully prepared so that they can work independently throughout the 10-hour practical exam. *Homework:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 2.5 hours)	Public examinations Students have completed the course at this point

Key Stage 5: Eduqas Design Technology GCE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
12	Public Seating Design project **Materials:** plastics, papers/boards, textiles **Processes:** printing, plastics (injection moulding, vacuum	Public Seating Design project **Materials:** smart materials **Processes:** Paper finishes, Sand Casting	Mechanical Product Project **Materials:** metals **Processes:** Die casting, investment casting, turning, drilling, marking out, bending,	NEA Project **Materials:** woods, composites **Processes:** plaster of Paris casting, wood joining techniques, adhesives, mechanical fixings	NEA project **Information handling modelling and forward planning:** collection, collation and analysis of information, standards	NEA Project **Information handling modelling and forward planning:** modelling the costing of projects, protecting intellectual property rights

	forming, extrusion, rotational), Drawing skills, Nets and die cutting **Digital:** CAD, CAM, Rapid prototyping **Factors influencing development of products:** user-centred design, anthropometrics and ergonomics, form vs function, design movements and designers. **Effects of technological developments:** Smart material applications **Maths:** using numbers and percentages, ratios and percentages	**Effects of technological developments:** Features of manufacturing industries: Quality control **Maths:** calculating surface areas and volumes, use of trigonometry *School examinations*	pressing/stamping/punching, welding, mechanical fixings, heat treatments **Safe working practices, potential hazards and risk assessment** **Features of manufacturing industries:** Production planning and scheduling **Designing for maintenance and the cleaner environment**: 5 principles of sustainability, circular economy, disassembly **Maths:** use and analysis of data, charts and graphs	**Effects of technological developments:** Mass production, global marketplace **Features of manufacturing industries:** Scales of production, quality monitoring systems, modern manufacturing methods **Designing for maintenance and the cleaner environment**: Product life cycle and the wider issues of using cleaner technologies **Maths:** Co-ordinates and geometry	**Maths:** Anthropometrics and probability	*School examinations*
13	NEA project **Further processes and techniques:** strategies, techniques and approaches to explore, created and evaluate design ideas, project management strategies, the stages of a product's life cycle	NEA project *PPE examinations*	NEA project	NEA project	Revision	*Public examinations*

Key Stage 5: AQA Art and Design: Textile Design GCE

Year	Half-term 1	Half-term 2	Half-term 3	Half-term 4	Half-term 5	Half-term 6
12	**Up-Close (Portfolio Project)** Health & Safety Introduction to the course Machine skills, Understanding the course objectives. Project analysis mind map and proposal, Artist/designer research x2, artist responses, developed ideas, Paint/dye, marbling, free machine embroidery, heated textiles, felting, embellishing, coaching	**Up-Close (Portfolio Project)** Development of artist influences developed into a surface outcome, design ideas and final idea ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 4-5 hours)	**Decorative Architecture (Portfolio Project)** Project analysis and proposal, Annotation guidance, Primary & secondary research inspiration, Fabric Manipulation, Couching, elastic thread, folding, gathering, shibori, Artist/designer 1 research, artist recreation samples ***Personal Time:***	**Decorative Architecture (Portfolio Project)** Artist/designer 2 research, artist recreation samples Laser cut work and development, Samples of influenced ideas developed into design ideas, Final idea, Constructed outcome. ***School examinations*** (5 Hours) ***Personal Time:***	**Personal Investigation** (60%) of final grade (Individual project) *Student choice own starting point to personal investigation. Research theme, artist/designer research, recreations and developing ideas through exploring techniques.* ***Personal Time:***	**Personal Investigation** (60%) of final grade (Individual project) ***School examinations*** (5 Hours) Further researching artist/designers or contextual studies. Recreations through experimenting and developing own ideas.

	techniques, embellishing machine, felting, heat press, transfer dye. ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)		Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)
13	**Personal Investigation** (60%) of final grade (Individual project) Focused directed research towards initial ideas. Continue to sample techniques and refine ideas. Commence written element. *Personal Time:* Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	**Personal Investigation** (60%) of final grade (Individual project) Design ideas, Mock-ups, construction investigations, Final idea and constructed final outcome. ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours) *PPE examinations* *(5 HOURS)*	***External set exam Project*** *(40%)* *PPE examinations* Complete final outcome. Students choice a starting point from the externally set projects 2nd Jan release. Personal prep period to investigate ideas using artist and designer inspiration. ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	***External set exam Project*** *(40%)* *Personal Time:* Students will spend a half an hour of project work for each lesson on independent study (2 weeks 9-10 hours) ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours)	***External set exam Project*** *(40%)* Set 10 hours (2 Days) Students complete ideas ready for exam. ***Personal Time:*** Students will spend half an hour of project work for each lesson on independent study (2 weeks 9-10 hours	***Course completed***

Differentiation:

Please note that these are generalised overviews of the Technology curriculum, but actual schemes of work are adapted and differentiated for each ability group to try to ensure stretch and challenge for all.

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