Design and Technology - Long Term Plans showing what each year group is currently doing.

[More detailed plans per year group showing the KS3 or KS4 journey are available if requested.] These are 'live' documents.

Key Stage 3

Year 7		Product Design	Product Design	Food Technology	Graphic Design	Textiles Design
Design&Technology	**Big Idea Project Title**	**Pewter Pendant** **Is Jewellery just for girls?** Students learn about alloys and how alloys are useful in determining the properties of metals. They learn about Pewter and how it is suitable for casting at a lower temperature than other metal alloys. Students are introduced to CAD/CAM and learn how to use the 2D Design drawing package to create a 3D mould. They learn what a sprue is and why there is a need to create a male and female image.	**Block Head** **Are traditional toys still relevant in the 21st Century?** Students are introduced to specific tools and machinery and learn how to use these safely and correctly. These are; Coping And Tenon Saws File Scroll Saw Bandfacer Pillar Drill Students learn how to cut and shape man made and natural woods with a strong focus on measuring and accuracy.	Eatwell Guide **What does a healthy diet look like?** Students will learn about hygiene and safety in the food room and an introduction to hazards in the kitchen. Students will study the Eatwell Guide and focus on the nutrition and using the commodities from the guide eg fruit, vegetables, pasta, bread, fibre foods Introduce planning meals for target groups and seasonality, food labelling and food sources. Skills to be covered are: knife skills, use of the cooker, weighing ingredients, using the hob.	**Personified Typography** **What is personification?** Formal elements – shape, colour, line	**Crisp Packet Soft Sculpture** **Where do natural fibres come from?** **Health & Safety Passport**

		Health and safety is visited with regards to working with molten metal and students learn about the casting process while casting their own pewter pendants. Students then learn about packaging products and the importance of brand identity. They develop 2D nets to create 3D packaging for their pendant as well as considering the aesthetics of the graphics they add to their final product.		Practicals include: veg prep, fruit salad, Omelettes, pizza baguettes, pasta salads, flapjack bars and melting moments		
	Assessment	Students are assessed on their CAD skills and technical knowledge as well as their ability to interpret and analyse a design brief. Assessment is also by outcome to include; • finishing skills	Students complete a written safety assessment during the project. Outcomes are assessed in terms of accuracy and creativity to include; • Accuracy when measuring blockhead parts	Students are assessed on their practical skills demonstrated in the lesson and their presentation skills Knowledge check with an end of module mini quiz. Students self assess their practical work and complete practical evaluations.	DMA- Develop – Processes of sketching, Graphical word representation, colour rendering, Explore – Paul Thurlby Record – Personified typography ideas, collaborative typeface.	FPT - Designer Influence - Lucy Sparrow Main Material - Felt, Wool fibre theory/ bonding construction - Thread, Cotton fibre theory

		• accuracy when drilling • cutting and shaping metal products • accuracy when folding, cutting and assembling a net • graphics application/ design skills • quality of final outcome Pupils are also assessed via B.I.G. activities (the big six)	• Accuracy drilling holes • Accuracy in creating the blockhead's face and arm and leg holes • Finishing skills • Surface decoration	Planning sheets used to check nutritional knowledge of ingredients	Present – Net for charity money box using the collaborative typeface outcome makes link to design work. Health & Safety – Correct & Safe use of graphic specific materials and equipment	Making Techniques - hand sewing equipment, applique, hand stitching, fabric paint, stuffing Design Process - Moodboard, ACCESSFM Template/Pattern making, Health and safety - Basic Hand sewing equipment of sharp tools
	Wider Curriculum Links	Using imagination and creativity in learning Communication Resilience Community and appreciation for your surroundings (theme of nature and the outdoors) Curriculum links - (STEM) Maths (nets), Computing	Using imagination and creativity in learning. Resilience (and perseverance) Curriculum Links - Mathematics (measuring), Art (creative outcomes)	Literacy and numeracy Ethical /moral issues regarding food choice Budgeting and shopping Environmental issues due to food production, Spiritual: using imagination and creativity Social: Developing personal qualities and using social skills	British Values – Mutual respect and tolerance Spiritual – Using Imagination and creativity in Learning Building Character – Organisation, Resilience, Communication	British Values – Rule of Law Spiritual – Using Imagination and creativity in Learning Building Character – Organisation, Resilience, Communication

		(CAD), Science - Properties of materials, metal alloys. Literacy - analysis and evaluation work.		Cultural: preparing for life in modern Britain Health and Well Being: maintaining physical, mental health and wellbeing Making informed choices about health and wellbeing matter Building Character: Organisation, Resilience, Initiative and Communication		

Year 8		Product Design	Product Design	Food Technology	Graphic Design	Textiles Design
Design&Techno	**Big Idea Project Title**	**Moodlight** **Can products impact emotions?** Students follow the design process to design a mood light based on cultural influences. Students learn about the properties of acrylic plastic and the difference between thermosetting polymers and thermoplastics.	**Sweet Dispenser** **Does the use of an industrial production system enhance manufacturing efficiency?** Students learn how to complete a simple product analysis and how this can then be used to shape their own design ideas. They learn how to draw in isometric projection and how this technique can	Energy Needs and Food Commodities **Do you know where our food comes from?** Students will learn about: Energy needs and recap Eatwell guide guidelines Students will learn about food commodities and provenance - potatoes, chicken, vegetables, planning meal for a teenager,	**Memphis Design Smoothie Label** **The impact of design movements of visual aesthetics**	**Pop Art - Storage Case** **What would our world be like without fastenings?**

logy		Students further develop their knowledge of 2D Design through the creation of a cultural based image which is then etched onto acrylic using the laser cutting process. Using basic electronic components, students are introduced to soldering and electronic circuitry. Through an introduction to man made boards, and through further developing wood shaping skills and accuracy, pupils create an octagonal shaped base made from plywood.	help them draw in three dimensions effectively in order to communicate their design ideas and thinking. Building on skills learnt from the Blockhead project, students learn how to shape a circle using a jig and how using templates can help to improve the quality of an outcome. They are also introduced at this stage to manufacturing processes and production volumes. Students learn how to create simple moving parts using wood joining techniques and are introduced to forstner drill bits and how to use these safely.	Food science and baking ingredients, heat transfer, Fair trade and food provenance Food safety and storage Practicals will be: chicken nuggets potato wedges vegetable wraps pasta bake four seasons pizza tart cup cakes and decorating cupcakes pop corn experiments choc chip cookies Skills - knife skills, using oven and hob, making sauces, using eggs for coating, choice of ingredients for wraps,		
	Assessment	Assessment takes place through; • the ability to respond to, analyse and interpret a design brief using appropriate research strategies to do so.	Students are assessed through their ability to create an effective working product. This includes; • The ability to create an accurate circle which is able to turn freely on its dowel • high quality finishing skills	Students are assessed on: practical skills and presentation of dishes Book work and evaluations of practicals (self assessment) Students will complete an end of unit quiz to demonstrate their learning.	DMA - Designer Influence – Memphis Design Movement Main Material – Paper & manufacture theory & size	DMA - Designer Influence - Roy Lichtenstein Main Material - Polyester/Cotton fibre theory, Fastening Zip

		• the demonstration of technical skills when using CAD products. • accuracy when soldering electronic components to create a fully working light • Accuracy when marking out, cutting and shaping materials • finishing skills		Students are assessed on their practical skills and food nutrition knowledge using the steps in their books.	Making Techniques – CAD Design, CAD Pattern repeats, layout & composition of typography Design Process – Pictorial drawing skills: Isometric, Perspective, colour rendering a 3D object Design Brief & Analysis, Investigation, Pattern design linking to Memphis Design, Developing smoothie label ideas, evaluation skills. CAD/CAM - PowerPoint Health & Safety – Appropriate skills for working a PC, Correct & Safe use of graphic specific materials and equipment	Making Techniques - Heat transfer printing, hand embroidery, pattern making, sewing machine, straight stitch/reverse stitch, inserting a zip, seams, finishing fabric edges Design Process - Design Brief & Analysis, ACCESSFM existing products, Onomatopoeia typography designs, POP ART designs links to designer influence, evaluation skills
	Wider Curriculum Links	Understanding how communities and societies function Mutual respect and tolerance Using imagination and creativity in learning Exploring, understanding and respecting diversity	Using imagination and creativity in learning. Resilience Communication Curriculum Links - Mathematics (measuring), Art (creative outcomes)	Cultural and moral issues with regards to food choices. Spiritual: using imagination and creativity Social: Developing personal qualities and using social skills Cultural: preparing for life in modern Britain	British Values – Rule of Law Spiritual – Experiencing fascination, awe & wonder, Using Imagination and creativity in Learning Building Character – Organisation, Resilience, Initiative, Communication	Spiritual – Experiencing fascination, awe & wonder, Using Imagination and creativity in Learning Moral - Investigating moral values and ethical issues

		Participating and responding to cultural activities Resilience Initiative Communication Curriculum Links - STEM Measuring, Systems and Control (electronic components), Computing (CAD/CAM), Geography, R.E.,		Health and Well Being: maintaining physical, mental health and wellbeing Making informed choices about health and wellbeing matter Building Character: Organisation, Resilience, Initiative and Communication		Building Character – Organisation, Resilience, Communication

Year 9		Product Design	Product Design	Food Technology	Graphic Design	Textiles Design
D e s i g n & T	Big Idea Project Title	<u>Pull Along Toy</u> What is Sustainable Design? How do we iterate? Students will build an understanding of the key concepts that underpin sustainable design. They	<u>Passive Amplifier</u> Do all products need energy? Students develop their understanding of aesthetics and design for purpose through a consideration of existing	Food Safety and International Foods How can culture enhance your food enjoyment? Students will learn about: Recall knowledge of the Eatwell Guide	Event Poster How are graphics used to promote events?	Graffiti Cushion Traditional dyeing techniques vs the latest technologies

echnology		will consider the project from the needs of another user in order to create a children's toy that is both fun and educational. Iteration will be a key theme throughout this project. Students will solve the design problem predominantly through card and MDF modelling rather than a drawing/design based approach. The 3 main resistant materials will be covered from an environmental impact perspective. Thereby enabling students to access the environmental impact of each material. 3D Isometric Drawing will be reinforced alongside high quality material rendering techniques. Testing and Evaluation will be thorough so that a detailed understanding is built about the cyclical nature of the design	products. They use this to form a product analysis. Students further develop their accuracy and skill when using hand tools and machinery through the practical activity. They are introduced to new terms and equipment, such as a forstner drill bit, which they use to drill the speaker part of their amplifier. Students learn to work with a range of natural and man made wood and are given an opportunity to develop their measuring, shaping, cutting and finishing skills while using these different materials, to create a quality outcome.	Discuss the tips for healthy eating Why is food cooked and methods of heat transfer Food safety - food poisoning bacteria. storing and preparing food safely and use of the temperature probes. Student will learn about the following commodities: chicken, pasta, potatoes, and rice Students will learn about labelling on food, the nutritional Traffic light labelling and Allergens Foods affecting food choice and seasonal ingredients. Study of British cuisine and afternoon tea traditions.		

		process and continuous product improvement.				
	Assessment	Assessment takes place through; • the ability to respond to, analyse and interpret a design brief using appropriate research strategies to do so. • the demonstration of evaluation skills with respect to materials and existing products. • the creative abilities of the student to solve problems and iterate designs through modelling. • accuracy when marking out, cutting and shaping materials. • their ability to finish their product to a high standard • 3D isometric drawing skills. • ability to suggest improvements to products based on	Students are assessed on the following skills and abilities; • Orthographic drawing skills • Creativity and designing skills, with regards to how they approach the brief to develop a unique and functioning outcome • The safe use of tools, machinery and equipment • Their ability to measure accurately • Their ability to shape and smooth materials skillfully • Their ability to finish their product to a high standard	Practicals and skills will include: Stir fry and knife skills, Dauphinoise potatoes and use of the food processor chicken curry and correct chopping boards American burgers - shaping and use of the temperature probes Spanish Rice Fruity muffins and use of the oven. Home made scones Measuring ingredients and functions of baking ingredients.	Designer Influence – Nikki Farquharson Main Material – Paper Making Techniques – CAD Photoshop/PowerPoint – Composition & Layout, colour, typography, size, printing finishes Design Process - Design Brief, Analysis, Mood board, Drawing skills in mark making techniques & Perspective, Specification, 2D final idea, Scanned idea to be digitally edited using CAD/CAM - Photoshop/PowerPoint Health & Safety – Appropriate skills for working a PC, Correct & Safe use of graphic specific materials and equipment	Designer Influence - Graffiti Main Material - Cotton, Cotton theory/ Woven Fabric construction Making Techniques - Resist Dying technique - Tie dye, fabric paint, fabric pens, Machine stitching - straight stitch, reverse stitching & machine applique, using patterns, Hems, Seams, fastenings and finishing fabrics. Design Process - Design Brief & Analysis, Mood board, Client Profile, Specification, Colour theory, 2D sketched ideas, Drawing to scale, CAD - Graffiti Creator

		testing and evaluation.				
	Wider Curriculum Links	British Values – Mutual respect and tolerance Spiritual – Experiencing fascination, awe & wonder. Using Imagination and creativity in Learning Moral - Investigating moral values and ethical issues. Building Character – Organisation, Resilience, Communication. Curriculum Links - STEM - measuring accurate dimensions, Maths - isometric. Art - rendering, Geography - material sources, R.E. - considering the needs of others.		British Values: Mutual respect Cultural and moral issues with regards to food choices. Spiritual: using imagination and creativity Social: Developing personal qualities and using social skills Cultural: preparing for life in modern Britain Health and Well Being: maintaining physical, mental health and wellbeing Making informed choices about health and wellbeing matter Building Character: Organisation, Resilience, Initiative and Communication	British Values – Mutual respect and tolerance Spiritual – Using Imagination and creativity in Learning Moral - Investigating moral values and ethical issues Building Character – Organisation, Resilience, Communication	British Values – Mutual respect and tolerance Spiritual – Using Imagination and creativity in Learning Moral - Investigating moral values and ethical issues Cultural - Participating and responding to cultural activities Building Character – Organisation, Resilience, Initiative, Communication

Key Stage 4: Year 10

Engineering Design

Year 10		HT1	HT2	HT3	HT4	HT5	HT6
Subject: OCR CAMBRIDGE NATIONAL IN ENGINEERING	Big Idea	**The Design Industry** **R038:** Design processes; stages and strategies. **R038:** Sketching and drawing, CAD Students learn about design processes and requirements as well as developing an understanding of the iterative design process, using tools such as ACCESSFM to help them.	**Communicating Designs** **R038:** Sketching and drawing, CAD **R039:** Drawing design ideas activity Students are able to develop a deeper understanding of the design process through the analysis of a design specification which then leads to them generating design ideas through a variety of different ways.	**The Design Process** **R038:** Sketching and drawing, CAD **R039:** Drawing design ideas activity **R039:** NEA assessment (working on) Students continue to learn about the design process and all the stages involved in this. Topics include; • Designing processes	**Model Making and Prototyping** **R038:** Sketching and drawing, CAD **R039:** Producing CAD models activity **R039:** NEA Assessment (working on) Students learn the importance of prototyping and further develop their computing skills and creative flair through model making using CAD	**The Impact of Outside Influences on Design** **R038:** Influences on engineering product design **R039:** Assessment (working on) Students learn about the market pull and technology push and how these affect design. They also learn about sustainable design and how the 6R's impact upon this. Lessons also look at the different legislation	**Modelling Methods** **R038:** Make, model and evaluate; virtual and physical prototypes **R039:** NEA Assessment (submit for moderation) Students use CAD, 3D printing, card, blocks, breadboards etc. to create models and record the type of information that can be obtained from using each type of modelling process. They then learn about the

			These include; • **Manual production of freehand sketches** • **Manual production of engineering drawings** • **The use of Computer Aided Design (CAD)**	• **Designing requirements** • **Communicating design outcomes** • **Evaluating design ideas**		**surrounding design such as copyright, patents, trademarks, BSI, European standards etc.**	**equipment required and the stages involved in each method before evaluating each method in terms of their advantages and disadvantages.**
	Assessment	Early assessment given based upon elements of the R038 unit	Drawing skills assessment	Practical and written CAD assessment given to assess understanding of different CAD tools, work planes and CAD assembly	Step given based on R039 CAD model making progress	Knowledge assessment given based upon R038 (L01 criterion only)	Worked marked and moderated against R039 examination criteria ready for submission to exam board
	Assessment Intent	*Knowledge test at the end of the half term to check initial understanding*	*To provide a step grade for R039 and to ensure progress is being made by all students.*	*To ensure students are competent in the technical aspects of CAD programmes so that they are able to complete the NEA assessed unit to the best of their ability*	*To ensure students are given the feedback they need to improve NEA and model making tasks further.*	*Knowledge test at the end of the half term to check understanding*	*Externally assessed NEA task worth 40% of the final Cambridge National Grade*
	Wider Curriculum Links	Resilience Initiative Communication	Using imagination and creativity in learning Making informed choices & how to be enterprising & ambitious Resilience	Making informed choices & how to be enterprising & ambitious Resilience Initiative Communication	Using imagination and creativity in learning Organisation Resilience Initiative Communication	Investigating moral values and ethical issues Preparing for life in modern Britain Understanding and appreciating personal influences	Using imagination and creativity in learning Assessing & managing risks to health and keeping self & others safe Organisation

			Initiative Communication			Understanding rights & responsibilities as community members, citizens & participants Making informed choices & how to be enterprising & ambitious Initiative Communication	Resilience Initiative Communication

Food Preparation and Nutrition

Year 10		HT1 – 7 weeks	HT2 – 7 weeks	HT3 – 6 weeks	HT4 – 6 weeks	HT5 – 6 weeks	HT6 – 7 weeks
Food preparation and nutrition	**Big Idea** **Food Skills**	Consolidation from Year 9 Eatwell Guide Food Hygiene/Practical Lesson Procedures <u>Nutrients</u> Macro-nutrients, HBV Protein, Fats, carbohydrates, sugar, starch. Fibre. Functions and sources, excess, deficiency, RDIs Practicals: Chicken Stir fry HBV proteins (chicken schnitzel), protein alternatives eg Quorn shepherd, Fats to make pastry, high fibre – muffins or crumble, sausage rolls	<u>Nutrients</u> <u>Overview of micro nutrients</u> Fat sol vitamins and water sol vits, minerals, water functions and sources, excess, deficiency, RDIs <u>Nutritional Needs and health</u> life stages and energy needs, Eatwell guide, portion control/costing nutritional analysis, Specific dietary needs and dietary related illnesses Practicals – calcium – cheese sa Using the grill - kebabs uce (roux), veg prep (stir fry), Lasagne, Fruit crumble	<u>Food Choice</u> factors affecting food choice, Ethical, moral issues, food labelling and marketing, Sensory Evaluation and testing <u>Food Safety</u> Hygiene and food safety – buying and storing food, preparing, cooking and serving food. Microorganisms, Enzymes, Food spoilage, bacterial contamination microorganism used in food production Practicals – Paneer cheese, Chelsea buns	<u>Food Science</u> Why Food is cooked? Heat transfer – cooking Methods Function and chemical properties of nutrients: protein, carbohydrates Practicals – choc mousse, lemon meringue pie, flaky pastry, emulsions	<u>Food Science</u> <u>Food Science</u> Function and chemical properties of fats (sensory testing of fats and oils) fruit and veg (oxidation/enzymic browning) Raising Agents chemical, mechanical, steam and biological methods Practicals – whisked cake (swiss roll) Cakes investigation Profiteroles – choux pastry Yorkshire pudding/batters Pizza – bread dough revision	<u>Food Provenance</u> Food sources, Gm Foods, farming, environmental issues associated with food, sustainability, seasonality <u>Food Provenance</u> Food Production – primary and secondary stages, Effects of processing, technologies/modified foods Practicals – cheese production? Jam production

	Assessment	Baseline Test – 30 min revision test on the Eatwell Guide	Revision Test on Macro and Micro Nutrients Target Group Meal Planning and Practical (create own recipe)	Revision Questions on Micro-organisms and food safety, Food spoilage	Exam Revision Question on Properties of Protein and carbohydrates	End of topic revision test on Food Science relating to properties of fat, oils and fruit and veg. Use some multiple-choice past exam questions	Mock Exam
	Assessment Intent	To assess nutritional knowledge linked to the eatwell Guide as this forms the basis of meal planning.	To assess student's depth of knowledge on the macro and Micro nutrients, identify areas to recap/revisit Plan and make Practical to demonstrate the development of practical skills	To check learning and understanding of the topic	To check learning and understanding of the scientific principles of proteins – coagualation, and fermentation.	To check pupils knowledge of plasticity, oxidation (related to the cooking and storing of fruit and vegetables).	To review students ability to write an extended answer. To carry out peer assessment for students to look at different responses.
	Wider Curriculum Links	**Multicultural foods, team work, looking after yourself and healthy food choices (Maintaining physical, mental and wellbeing)**	**Literacy and numeracy Team work, considering others needs in society, Using imagination and creativity in learning, making informed choices about health,**	**Literacy and numeracy Values – responsibility, organisation – Investigating moral values and ethical issues, preparing for life in modern Britain**	**Literacy and numeracy, different needs in society**	**Literacy, numeracy, scientific understanding of ingredients**	**Literacy, SMSC. Environmental issues relating to food production, GM Foods**

Product Design

Year 10		HT1	HT2	HT3	HT4	HT5	HT6
Product Design	Big Idea	**Diverse Design** **During theory-based lessons, students are introduced to new and emerging technologies and the impact these have on societies.** **They learn about the developments in modern and SMART, composite materials and technical textiles materials.**	**Core Design and Technology** **Students learn about the categorisation of a variety of materials and consider their structure and composition.** **They investigate the work of other designers and also the environmental, social and economic**	**Specialist Materials** **Students begin to focus on the specialist unit for their examination.** They learn about the sources, origins, physical and working properties of each natural and manufactured timber and their social and ecological footprint. They also	**Scales of Production** Students learn about typical stock forms, types and sizes used in order to calculate and determine the required quantity of each natural and manufactured timber. They learn about alternative processes that can be used to	**Finishes and Techniques** Students learn about the specialist techniques, tools, equipment and processes that can be used on each natural and manufactured timber to shape, fabricate, construct and assemble a high-quality prototype	**Contextual Challenge** **The exam board releases the contextual challenge for the GCSE course.** **Students begin investigating the context and identify a potential user or user group.**

		Students are introduced to the functions of mechanical devices and electronic systems and learn how programmable components embed functionality into products. **At the end of the half term, students will learn about the categorisation of metals, papers and boards** **In practical lessons students complete a Mini Contextual Challenge where they design and make a product for a given group of people.**	**challenges faced when identifying opportunities and constraints that influence the process of designing and making.** **Students learn about design fixation and how this can be avoided as well as developing different design strategies and techniques.** **In practical lessons, students continue and complete their mini contextual challenge.**	learn the way in which the selection of each natural and manufactured timber is influenced Towards the end of the unit, students learn about the impact of forces and stresses on each natural and manufactured timber and how they can be reinforced and stiffened **During practical lessons students develop their knowledge of joining materials using both CAD/CAM and manual techniques**	manufacture typical products of each natural and manufactured timber to different scales of production During practical lessons, students learn more about CAD and how this can be used effectively in both designing and making	They also learn about appropriate surface treatments and finishes that can be applied to each natural and manufactured timber for functional and aesthetic purposes In practical lessons, students explore finishes and finishing techniques through a range of focussed practical tasks.	**Students learn how to write a detailed design specification.**
	Assessment	Pupils will complete an exam style assessment based on theory covered in this first part of the course	Students will complete an end of module internal assessment based on theory learned this term.	A step assessment based on practical tasks will take place at this stage	Students will complete an assessment based on their knowledge of timbers, to include properties, working properties, selection, stock forms and the	End of topic assessment. Students will complete a past paper.	Step assessment awarded and written feedback provided based on the end of year progress to date

					stresses on these materials.		
	Assessment Intent	*To ensure students have grasped the basic concepts of the Product Design course*	*To provide feedback to students with regards to their progress and to inform future short-term plans*	*To ensure students are developing the techniques required to complete a high-quality practical outcome when they begin their contextual challenge*	*To ensure students are able to recall key facts about Timbers and so that they understand the working properties of the key material they will be using when completing their contextual challenge*	*To help prepare students for the types of questions asked in a real GCSE examination and to inform future planning and revision strategies*	*To provide students with initial feedback with regards to their contextual challenge and to allow them to reflect on their progress over the entire year in preparation for year 11.*
	Wider Curriculum Links	Understanding how communities and societies function Exploring, understanding and respecting diversity Participating and responding to cultural activities Preparing for life in modern Britain Organisation Resilience Initiative Communication Diverse identities in the UK	Understanding the role and influence of the media on lifestyle 3.4 Knowing about the economic & business environment	Organisation Resilience Initiative Communication Assessing & managing risks to health and keeping self & others safe Responding in an emergency, including administering first aid	Organisation Resilience Initiative Communication	Organisation Resilience Initiative Communication Assessing & managing risks to health and keeping self & others safe Responding in an emergency, including administering first aid	Understanding and appreciating personal influences Understanding the role and influence of the media on lifestyle Making informed choices & how to be enterprising & ambitious Understanding how communities and societies function Exploring, understanding and respecting diversity Participating and responding to cultural activities

		Contributing to the improvement of the community					Preparing for life in modern Britain Organisation Resilience Initiative Communication Diverse identities in the UK Contributing to the improvement of the community.

Key Stage 4 : Year 11

Construction

Year 11		HT1	HT2	HT3	HT4	HT5	HT6
Construction	Big Idea	**Employee Roles** Unit 3 (9813)– Planning Construction projects – LO1 – Job roles	**Processes and Resources when Realising Construction Projects** Unit 3 (9813) – Planning Construction Projects – L02 • Processes used in built environment development projects • Calculate resources to meet	**Assessing Success** Unit 3 (9813) – Planning Construction Projects – L02 • The potential effect of factors on project success • Interpret sources of information	**Project Planning** Unit 3 (9813) – Planning Construction Projects – L03 Be able to plan built environment development projects	Finalisation of projects. Bridging knowledge gaps Checking for gaps in project work ready for final submission	

			requirements for built environment development projects			
	Assessment	Controlled Assessment Q&A sessions Peer marking and assessment B.I.G big six	Controlled Assessment Q&A sessions Peer marking and assessment B.I.G big six	Controlled Assessment Q&A sessions Peer marking and assessment B.I.G big six	Controlled Assessment Q&A sessions Peer marking and assessment B.I.G big six	Final marking of coursework portfolios ready for external moderation of Units 2 and 3 In house moderation of work for QA
	Assessment Intent	Ongoing controlled assessment as per the exam board guidelines. Interim and short term assessments to take place to ensure students understand expectations and to help with knowledge development	Ongoing controlled assessment as per the exam board guidelines. Interim and short term assessments to take place to ensure students understand expectations and to help with knowledge development	Ongoing controlled assessment as per the exam board guidelines. Interim and short term assessments to take place to ensure students understand expectations and to help with knowledge development	Ongoing controlled assessment as per the exam board guidelines. Interim and short term assessments to take place to ensure students understand expectations and to help with knowledge development	To provide WJEC with an accurate final grade for Internally Controlled Assessment units
	Wider Curriculum Links INDUSTRIAL CURRICULUM	Mathematics – Area, Volume, Percentages, Scaling, Best Value, Tolerances, VAT, Tender Price, Gantt charts ICT - Spreadsheets	Mathematics – Area, Volume, Percentages, Scaling, Best Value, Tolerances, VAT, Tender Price, Gantt charts ICT - Spreadsheets	Mathematics – Area, Volume, Percentages, Scaling, Best Value, Tolerances, VAT, Tender Price, Gantt charts ICT - Spreadsheets	Mathematics – Area, Volume, Percentages, Scaling, Best Value, Tolerances, VAT, Tender Price, Gantt charts	

	STEM LINKS	Engineering – interpreting technical drawings Key skills – reading writing, problem solving, application of number, working with others, ICT and improving own learning and performance	Engineering – interpreting technical drawings Key skills – reading writing, problem solving, application of number, working with others, ICT and improving own learning and performance	Engineering – interpreting technical drawings Key skills – reading writing, problem solving, application of number, working with others, ICT and improving own learning and performance	ICT - Spreadsheets Engineering – interpreting technical drawings Key skills – reading writing, problem solving, application of number, working with others, ICT and improving own learning and performance	

Engineering Design

	Year 11	HT1	HT2	HT3	HT4	HT5	HT6
Engineering Design	Big Idea	**Engineering Drawings – Industry Standards** **R107 OCR-set Assignment: Developing and presenting engineering designs**	**Engineering Drawings – Industry Standards** **R107 OCR-set Assignment: Developing and presenting engineering designs**	**Planning how to make products safely** **R108 OCR-set Assignment: 3D design realisation** Product planning and manufacture in workshop	**Producing a product within a given time frame** **R108 OCR-set Assignment: 3D design realisation** Product planning and manufacture in workshop	**Evaluating, testing and improving** **3D design realisation** Product planning and manufacture in workshop	Course completed. Time can be used to consolidate learning in core subjects.
	Assessment	**R107:** **LO2:** Know how to develop designs using engineering drawing techniques and annotation. Timed response. R107: This is an externally set, centre	**R107:** **LO3:** Be able to use Computer Aided Design (CAD) software and techniques to produce and communicate design proposals Timed response.	Practical skills assessment against R108 criteria. **LO1:** Know how to plan the making of a prototype	Practical skills assessment against R108 criteria. **LO3:** Be able to produce a prototype Timed response.	Practical skills assessment against R108 criteria. **LO3:** Be able to produce a prototype	

		controlled assessment – 25% of final grade.	R107: This is an externally set, centre controlled assessment – 25% of final grade.	**LO2:** Understand safe working practices used when making a prototype Timed response. R108: This is an externally set, centre controlled assessment – 25% of final grade.	R108: This is an externally set, centre controlled assessment – 25% of final grade.	**LO4:** Be able to evaluate the success of a prototype Timed response. R108: This is an externally set, centre controlled assessment – 25% of final grade.	
	Assessment Intent	PLC to be used to regularly check R107 progress against the assessment criteria. Specific area to improve feedback to students.	PLC to be used to regularly check R107 progress against the assessment criteria. **Exam-board marksheets and witness statements to complete.**	PLC to be used to regularly check R108 progress against the assessment criteria. Specific area to improve feedback to students. Time given to students to respond to feedback through improving/re-attempting tasks.	PLC to be used to regularly check R108 progress against the assessment criteria. Specific area to improve feedback to students. Time given to students to respond to feedback through improving/re-attempting tasks.	PLC to be used to regularly check R108 progress against the assessment criteria. Specific area to improve feedback to students. **Exam-board marksheets and witness statements to complete.**	
	Wider Curriculum Links	Iconic design. Famous designers – internationally.	ICT skills – 3D CAD, digital experimentation. Design industry awareness – BSI standards and rules. Sustainability future – energy usage.	H&S legislation. BS: 4163 Industrial production planning.	Safe working practices. Literacy – annotating and recording a manufacturing diary. Reflective and analytical writing.	Literacy – annotating and recording a manufacturing diary. Reflective and analytical writing. Final products displayed in school design show.	

Food Preparation and Nutrition

	Year 11	HT1	HT2	HT3	HT4	HT5	HT6
Food	Big Idea	NEA 1 Coursework NEA topics released 1st Sept (10 hours) Research Investigation Analysis and evaluation (HAND IN BEFORE HALF TERM FOR MARKING)	NEA 2 Coursework NEA2 topics released !st November (20 hours) Section A – Research and start Section B – Demonstration of skills (include mock exams?)	NEA 2 continued Section B – demonstration of skills and evaluations Section C – Planning the Final menu	Section D – Making the Final dishes (3 hour practical) takes place March time Section E – Analysis and Final Evaluations HAND IN (BEFORE EASTER BREAK FOR MARKING)	NEA1 AND NEA2 INTERVENTIONS Revision lessons up to the Food exam in HT6 – A structured revision plan is set up to revise all areas of the specification.	EXAMs
	Assessment	Marking of the NEA1 coursework	Food Mock Exam	Marking of the Section B Demonstration of skills	Final Marking of NEA2.	Past papers and exam questions	Final Food Assessment Exam
	Assessment Intent	To mark coursework in line with the marking criteria : AO2, AO3, AO4 Assessment objectives below.	To review students understanding of the subject and to find areas where further revision is needed and clarification AO1, AO3, AO4	To assess areas of practical skills. To discuss areas to include in the Section D planning and making AO2, AO3, AO4.	To review and mark coursework for redrafting and intervention work for missing pieces of work. AO2, AO3, AO4.	To check understanding of the topics from the specification. To bridge gaps in learning/knowledge by focused revision sessions/lessons.	
	Wider Curriculum Links	**Numeracy, Literacy, Team work, Building Character (organisation)**	**Numeracy, Literacy, team work, organisation**	**Numeracy, Literacy, organisation skills.**	**Literacy, organisation, Resilience,**	**Literacy**	

Textile Design

	Year 11	HT1	HT2	HT3	HT4	HT5	HT6
Textiles	Big Idea	Mock Exam - Prep	Mock Exam – Planning & Final Outcome	Externally Set Assessment Task - Prep	Externally Set Assessment Task- 10 hours		
	Assessment	**AO1–** explore starting point, primary sources, secondary source research -Investigating the work of textile designers & artists	**AO4** – Planning for mock exam/Final outcome and personal response of 2-D or 3-D textile product	**AO1 –** explore AQA starting point, primary sources, secondary source research Investigate textile artists and fashion designers **AO2** – experiment with textile materials and	**AO4** – Produce a meaningful response Plan time and resources for relevant and meaningful personal response		

		AO2 & AO3 – Observational drawings, designer copies, developing ideas -Experimenting ideas using textile materials and techniques		techniques to showcase skills **AO3–** Observational drawings, photography and mark making. Textile designer/artist response	Produce a final outcome and personal response of 2-D or 3-D textile product		
	Assessment Intent	Verbal feedback will ensure dialogue between teacher and learner during the lesson to reinforce understanding of the AO's requirements	**KEY Assessment Point** Final grade given for mock exam. Broken down into marks for each assessment objective. Review of marking undertaken by student.	Progress of ESA monitored through RAG checklist checklist to reduce gaps in project Verbal feedback will ensure dialogue between teacher and learner during the lesson to reinforce understanding of the AO's requirements	**KEY Assessment Point** Final grade given for externally set assessment. Broken down into marks for each assessment objective. Review of marking undertaken by student.	Standardisation of **Component 1 – Portfolio** Structures Project, Mock exam, (YR9) projects if needed **Component 2 – ESA**	Exam Moderation of **Component 1 – Portfolio** **Component 2 - ESA**
	Wider Curriculum Links	Values - through personal themes explored Literacy – analysis, annotation skills Health & Safety for specific equipment	Values - through personal themes explored Literacy – evaluation skills Health & Safety for specific equipment Mock Exam timetable	Values - through personal themes explored Literacy – analysis, annotation skills Health & Safety for specific equipment Textiles Exhibition celebrating Mock exam final outcomes	Values - through personal themes explored Literacy – evaluation skills Health & Safety for specific equipment	ESA – Included in the pop up art exhibition	