



YEAR 7 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Design Technology, the rotation system supports students to develop a range of practical skills and build knowledge about key topics. In Year 7 students will acquire a breadth of skills from cutting materials, using machinery, developing computer skills, assembling materials and cooking a range of dishes. These skills will be built up to allow students to learn how to use key tools and machinery, develop design and knowledge from one rotation to the next, with opportunities to progress with previously learned skills and become a more advanced practitioner.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Rotation 1	Rotation 1	Rotation 2	Rotation 2	Rotation 3	Rotation 3
Topic	CAD + Materials - Project Research and Ideas, learning computer software, understanding DT links to the wider world	CAD + Materials Practical Skills, Theoretical knowledge and application	Resistant Materials - Project Research and Ideas, Learning Machinery, Practical Skills, understanding DT links to the wider world	Resistant Materials - Assembly and Decoration Skills, Theoretical knowledge and application	Food + Nutrition - Spot practical tasks, using tools and equipment, applying newly learned skills, understanding DT links to the wider world	Food + Nutrition - Healthy eating, theoretical knowledge and application, developing cooking skills and progressing with key skills
Links to prior learning	Links to primary school DT, basic computer skills, how a product is created and why.	Reflecting on AU1 skills and building on application and confidence when using DT tools, machinery and completing practical tasks.	Links to previous CAD rotation, the skills can be repeated and developed, repeated use of machinery and tools, mastering skills and techniques	Reflecting on AU1/2 + SP1 skills and building on application and confidence when using DT tools, machinery and completing practical tasks.	Links to primary school DT, basic cooking skills, how to use tools and equipment, healthy eating and food groups.	Reflecting on SU1 skills, how have tools and equipment been mastered, realisation of using these skills, techniques and cooking methods in the real world.

Substantive knowledge headlines	Facts and concepts delivered/what happens: students will recognise and understand the need for new products, analysing previous products and taking inspiration from them. Students will learn about how this links to the wider world and see the purpose and reality of design and manufacture.	Facts and concepts delivered/what happens: Students study industry and see how a product is created on a larger scale, they realise the concept of producing their everyday items and how this links to a designer, manufacturer and consumer, students to see the bigger picture of the design world. Students to be taught the health and safety of machinery and procedures to follow.	Facts and concepts delivered/what happens: students will recognise and understand how to analyse a product and pick apart the skills and knowledge needed to create their own, analysing previous products and taking inspiration from them. Students will learn about how this links to the wider world and see the purpose and reality of design and manufacture.	Facts and concepts delivered/what happens: Students study materials and the impacts of these on the environment, learning key concepts such as sustainability. Students learn the bigger picture of the choices made in everyday life and how this has an impact on the world around us. Students will learn about how this links to the wider world and see the purpose and reality of design and manufacture.	Facts and concepts delivered/what happens: Students learn the food groups and elements of recipes, key ingredients, different methods and processes needed to create a dish from start to finish. Student will learn the tools needed for key skill: knife, cutting vegetables, rubbing in. Health and safety of the room covered. Food safety.	Facts and concepts delivered/what happens: student continue to develop theory knowledge of the food groups and the properties of each, student learn about a health balanced diet, food contamination and other links that they can use these skills and knowledge in the real world such as preparing food at home.
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Disciplinary knowledge headlines	How this happens: students will apply the skill of creating, constructing, and assembling a product, the tools and machinery that will be needed in the construction of the product. Computer software skills learned and developed. Realisation of progress from step to step when creating a product.	How this happens: Students carry out their learning by using machinery and putting health and safety and knowledge into practice using the tools and machinery to construct a product. Students participate in group tasks to put every day items into a hierarchical structure of how often then would be produced in industry and why? linking back to their practical application and product analysis	How this happens: Students develop and further apply previously learned skills of cutting, sawing, sanding, constructing and decoration. Students actively work in a practical environment with tools and machinery. Realisation of progress from step to step when creating a product.	How this happens: When students are engaging in practical they physically learn and use the machinery that has been taught in theory lessons to learn new skills through trial and error, putting knowledge into practice. Students take part in discussions around the implications of machinery and materials on the environment.	How this happens: Students will put their knowledge and theory into practice when completing spot practical tasks and tasks such as using the rubbing in method. Students navigate the practical tasks and organise themselves to adhere to health and safety rules in the classroom. Student see the process through from start to finish and will learn to use the oven, hob and tools, as well as washing up.	How this happens: Students continue to develop and master skills to create different dishes and follow recipes carefully becoming more independent learners and practitioners. Students learn the principle of using different coloured chipping boards and put this into practice in the classroom environment.
Links to knowledge in future units	Learning the repeated future use of machinery, how skills will be mastered and developed over future rotations, the concept of learning a skill and not forgetting it but utilising it effectively for future DT work.	Learning that the process of design, creation, construction and decoration will be used in the next rotation to create a new product using similar skills whilst also acquiring new ones.	Learning the repeated future use of machinery, how skills will be mastered and developed over future rotations, the concept of learning a skill and not forgetting it but utilising it effectively for future DT work.	Learning that the process of design, creation, construction and finishing skills will be used in the next rotation to create food dishes, setting up for practical, being organised and being resilient when learning new skills.	Learning the repeated future use of machinery, how skills will be mastered and developed over future rotations, the concept of learning a skill and not forgetting it but utilising it effectively for future DT work.	Learning that the processes that were acquired in Year 7 will be used again in Year 8 when repeating rotations again, to develop the breadth of skills and knowledge.

Key vocabulary	Computer Aided Design, Computer Aided Manufacture, Software, Creativity, Laser Cutter	Practical, Workshop, Tools, Equipment, Materials, Processes, Production, Industry	Machinery, Equipment, Workshop, Health & Safety, Materials, Processes, Organisation	Sustainability, Environment, Impact, Review, Recycle, Rethink, Application	Macronutrients, Micronutrients, Eatwell Guide, Food groups, Protein, Energy. Food safety.	Skills, Techniques, Methods, Application, Presentation
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YEAR 7 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Design Technology, the rotation system supports students to develop a range of practical skills and build knowledge about key topics. In Year 7 students will acquire a breadth of skills from cutting materials, using machinery, developing computer skills, assembling materials and cooking a range of dishes. These skills will be built up to allow students to learn how to use key tools and machinery, develop design and knowledge from one rotation to the next, with opportunities to progress with previously learned skills and become a more advanced practitioner.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Rotation 1	Rotation 1	Rotation 2	Rotation 2	Rotation 3	Rotation 3
Topic	Textiles - Project Research and Ideas, learning subject specific skills and machinery	Textiles Practical Skills, Theoretical knowledge and application, surface application, material knowledge	Photography - Project Research and Ideas, learning subject specific skills and machinery understanding links to the wider world	Photography - Creation of own photographs, artist research, producing a finished product	Business in DT (Branding) - Learning about a brand and identity, creation of own branding, Spot practical tasks,	Business in DT (Branding) - Learning key skills and machinery, how to apply a brand and design to a physical product.
Links to prior learning	Links to primary school DT, basic sewing skills, how a product is created and why, what sort of textile materials their everyday clothing items are made from.	Reflecting on AU1 skills and building on application and confidence when using DT tools, machinery and completing practical tasks.	Links to previous rotation, real world problems, how creative industries work, promoting curiosity into where they might have used a skill before, making links to the wider world	Reflecting on AU1/2 + SP1 skills and building on application and confidence when using DT tools, machinery and completing practical tasks.	Links to primary school DT, designing a logo and seeing a logo used in the real world, what brands do students know and why are they well remembered/iconic	Reflecting on SU1 skills, how have tools and equipment been mastered, realisation of using these skills, techniques and methods in the real world.

Substantive knowledge headlines	Facts and concepts delivered/what happens: students will recognise and understand the need for creating textiles based products and how they are all around us in the real world, students learn the facts of each fabric and the most appropriate fabrics to use for each product. Students introduced to machinery.	Facts and concepts delivered/what happens: Build on knowledge of materials, processes, real life textiles industries, theoretical knowledge of combining skills and material to produce a product. Design work to show progression.	Facts and concepts delivered/what happens: Content is delivered into what is photography, what is a camera obscura, what is a dark room. Students learn the theoretical knowledge of cameras and their modes/functions. Students study artists and designers that are photographers and manipulate images.	Facts and concepts delivered/what happens: Students learn the principle of photography editing software and how to use tools/features to edit their own work. Student look at artists and designers who do the same and think about inspiration they can be taken from the work of others.	Facts and concepts delivered/what happens: The concept of branding is delivered, linking to what makes a good brand, what is a successful logo looking like, analysing existing brands and logos, how can a brand identity be built. Business terminology delivered with links to DT and the design world.	Facts and concepts delivered/what happens: Student learn how to use methods and software to create their branding identity digitally and transfer to objects to create a whole identity and have the realisation of links to the real life business work and how to share and promote a brand or company.
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Disciplinary knowledge headlines	How this happens: Students use their knowledge of the newly introduced machinery to apply the skills on the sewing machine, hand stitching techniques and decorate fabrics and complete surface decoration techniques. Students learn health and safety principles in the classroom environment	How this happens: Students build and construct a product to show skills progression and mastery, students continue to develop and adapt their use of tools and machinery, knowledge and awareness of the practical environment, developing health and safety rules with organisational skills.	How this happens: Students put their theoretical knowledge into practice by taking images with the compact cameras to learn the art of composing pictures and using the different camera modes. They study artists and use these to influence and inspire their work.	How this happens: Students use their knowledge and application of software and editing skills to begin to edit their own creations and manipulate them. Students can collage images using a variety of photographs. Students see the process through of research to practice to editing and see their progress of photography skills develop and realise there is more than just a phone camera.	How this happens: Students research brands, take ideas and inspiration and incorporate these into their own identity and brand. Logos are created and images/fonts explored. Logo transferred for editing. Products explored for creation: Keyring, coaster, tote bag.	How this happens: the application of putting together all business and branding over a number of lessons with small practical and design tasks completed to see progress over time and see their branding come together as a whole as it would in real life industry. Student evaluate the success of their own creation.
Links to knowledge in future units	Learning the repeated future use of machinery, how skills will be acquired and developed over future rotations, the concept of leaning a skill and not forgetting it but utilising it effectively for future DT work.	Learning that the process of design, creation, construction and decoration will be used in the next rotation to create a new product using similar skills whilst also acquiring new ones.	Learning that the photos that they take can be used and edited in future study and make links to the wider faculty such as art lessons or editing images in IT lessons.	Learning that the process of design, creation, construction and finishing skills will be used in the next rotation to create food dishes, setting up for practical, being organised and being resilient when learning new skills.	Links made between DT and Business to create products and brand identities. Links to future study of business as a n option. Links to Year 8 graphics creation of design and transfer	Learning that the processes that were acquired in Year 7 will be used again in Year 8 when repeating rotations again, to develop the breadth of skills and knowledge.
Key vocabulary	Textiles, Machinery, Equipment, Materials, Sewing, Thread, Fabric,	Decoration, Assembly, Constructions, Development,	Photography, Camera, Artists, Research, Practice, Modes, Images, Camera Obscura, Dark Room, Contact Sheet	Photoshop, Editing, Software, Layering, Development, Contact Sheet	Business, Branding, Identity, Logo, Company, Research	Sublimation Printing, Laser Cutter, Software, Design, Application, Transfer



YEAR 8 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Design Technology, the rotation system supports students to develop a range of practical skills and build knowledge about key topics. In Year 8 students will develop skills they learned in Year 7 whilst also acquiring new skills. They will aim to master these skills and fully realise their own progress whilst evaluating the outcomes they have produced. Students will complete a range of practical based learning tasks including cutting and shaping materials, using tools and equipment, creating CAD work using software and cooking a range of dishes in food technology.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Rotation 1	Rotation 2	Rotation 3	Rotation 4	Rotation 5	Rotation 6
Topic	CAD + Materials - Project Research and Ideas, learning computer software, understanding DT links to the wider world, understanding links to materials and their sources.	Textiles - Practical Skills, Theoretical knowledge and application, surface application, material knowledge	Resistant Materials - Project Research and Ideas, Learning Machinery, Practical Skills, understanding links to materials and their sources.	Graphics - Design, Digital and Decoration Skills, Theoretical knowledge and application, creation of laser cut outcome.	Food + Nutrition - Spot practical tasks, using tools and equipment, following key recipes, understanding DT links to the wider world	Business in DT (Branding) - Learning about a brand and identity, creation of own branding, Spot practical tasks,
Links to prior learning	Links to Year 7 rotation, recap on the process of designing, making, assembling and decorating a product as well as integrating CAD CAM into the process.	Links to Year 7 rotation, basic sewing skills, how a product is created and why, what sort of textile materials are needed based on their key properties	Links to Year 7 rotation of cutting, sanding and shaping a material, recapping the key health and safety requirements for use of machinery and tools in the workshop.	Making links to rotations which have used overlapping skills such as design creation, software use and the construction and assembly of a finished product.	Links to Year 7 rotation, recapping on key skills and techniques to follow a recipe and produce an outcome whilst following H+S and food safety rules.	Links to Year 7 rotation of creating a brand and thinking about businesses in the real world and the key to having a successful brand/logo/identity.

Substantive knowledge headlines	Facts and concepts delivered/what happens: Students will recap on what skills and techniques were learned in Year 7 and will use the computer software to create a digital CAD design. Software will be re-taught. Students learn the key differences between softwoods, hardwoods and man-made boards and think about how these link to real world products that are used everyday.	Facts and concepts delivered/what happens: students will recognise and understand the need for creating textiles based products and how they are all around us in the real world, students learn the facts of each fabric and the most appropriate fabrics to use for each product. Students reintroduced to machinery which will be developed and mastered with a different emphasis on skills and assembly.	Facts and concepts delivered/what happens: students will recognise and understand how to analyse a product and pick apart the skills and knowledge needed to create their own, analysing previous products and taking inspiration from them. Students will learn about how this links to the wider world and see the purpose and reality of design and manufacture.	Facts and concepts delivered/what happens: Students complete a product analysis task. Looking at the work of others, analysing design and making features, generating themes and ideas. Students will recap on what skills and techniques were learned in Year 7 and in previous Year 8 rotations and will use the computer software to create a digital CAD design. Software will be re-taught.	Facts and concepts delivered/what happens: Students learn the food groups and elements of recipes, key ingredients, different methods and processes needed to create a dish from start to finish. Student will learn the tools needed for key skill: knife, cutting vegetables, rubbing in. Health and safety of the room covered. Food safety.	Facts and concepts delivered/what happens: The concept of branding is delivered, linking to what makes a good brand, what is a successful logo looking like, analysing existing brands and logos, how can a brand identity be built. Business terminology delivered with links to DT and the design world.
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Disciplinary knowledge headlines	How this happens: students will apply the skill of creating, constructing, and assembling a product, the tools and machinery that will be needed in the construction of the product. Computer software skills learned and developed. CAD skills should be built upon to master the skills and show clear progression from Year 7.	How this happens: Students use their recapped knowledge of hand stitching and using the sewing machine to create a wall hanging/cushion cover by combining the individual practical skills together to construct and assemble to fabrics and component parts together. Students continue to learn and practice using materials based on the theoretical knowledge they have gained.	How this happens: Students develop and further apply previously learned skills of cutting, sawing, sanding, constructing and decoration. Students actively work in a practical environment with tools and machinery. Realisation of progress from step to step when creating a product. Applying finishing skills, techniques and decoration.	How this happens: students will apply the skill of creating, constructing, and assembling a product, the tools and machinery that will be needed in the construction of the product. Computer software skills learned and developed. CAD skills should be built upon to master the skills and show clear progression from Year 7.	How this happens: Students will put their knowledge and theory into practice when completing spot practical tasks and tasks such as using the rubbing in method. Students navigate the practical tasks and organise themselves to adhere to health and safety rules in the classroom. Student see the process through from start to finish and will learn to use the oven, hob and tools, as well as washing up.	How this happens: Students research brands, take ideas and inspiration and incorporate these into their own identity and brand. Logos are created and images/fonts explored. Logo transferred for editing. Products explored for creation: Keyring, coaster, tote bag.
Links to knowledge in future units	Skills will be utilised in future Year 8 rotations including RM, Graphics and Business projects. CAD skills will be further developed and mastered. Further timbers will be learned as well as a range of other materials. Skills will be repeated in Year 9	Organisation of a practical project, as well as designing and assembly skills will be used in future Year 8 rotations. Textiles skills will need to be retained to use again in Year 9 projects to master and develop the skills further.	Skills will be utilised in future Year 8 rotations including, Graphics, CAD and Business projects. Practical skills will be further developed and mastered. Further timbers will be learned as well as a range of other materials. Skills will be repeated in Year 9.	Learning that the process of design, creation, construction and finishing skills will be used in the next rotation to create food dishes, setting up for practical, being organised and being resilient when learning new skills.	Learning the repeated use of machinery and tools will be needed again, how skills will be mastered and developed over future rotations, the concept of learning a skill and not forgetting it but utilising it effectively for future DT work. Organisation, planning and safe working are all things that will be utilised in all DT rotations.	Skills will be utilised in other Year 8 rotations including RM, Graphics and CAD projects. CAD skills will be further developed and mastered. Further newly learned material and sustainability topics will be completed. Skills will be repeated in Year 9.

Key vocabulary	Computer Aided Design, Computer Aided Manufacture, Software, Creativity, Laser Cutter	Textiles, Machinery, Equipment, Materials, Sewing, Thread, Fabric,	Machinery, Equipment, Workshop, Health & Safety, Materials, Processes, Organisation	Product Analysis, Artist Research, Themes, Designs, Generating, Concepts, CAD, CAM, Graphical Imagery	Macronutrients, Micronutrients, Eatwell Guide, Food groups, Protein, Energy. Food safety.	Business, Branding, Identity, Logo, Company, Research
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YEAR 9 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Design Technology, the rotation system supports students to develop a range of practical skills and build knowledge about key topics. In Year 9, students are familiar with the different specialisms in each DT rotation and should aim to identify their areas of strength in each rotation, considering if DT is a possibility for their option choices at GCSE level. Students will complete a range of practical based learning tasks including cutting and shaping materials, using tools and equipment, creating CAD work using software and cooking a range of dishes in food technology.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Rotation 1	Rotation 2	Rotation 3	Rotation 4	Rotation 5	Rotation 6
Topic	CAD + Materials - Project Research and Ideas, learning computer software, understanding DT links to the wider world, understanding links to materials and their sources.	Textiles - Practical Skills, Theoretical knowledge and application, surface application, material knowledge	Resistant Materials - Project Research and Ideas, Learning Machinery, Practical Skills, understanding links to materials and their sources.	Graphics - Design, Digital and Decoration Skills, Theoretical knowledge and application, creation of laser cut outcome.	Food + Nutrition - Spot practical tasks, using tools and equipment, following key recipes, understanding DT links to the wider world	Business in DT (Branding) - Learning about a brand and identity, creation of own branding, Spot practical tasks,
Links to prior learning	Links to Year 8 rotation, recap on the process of designing, making, assembling and decorating a product as well as integrating CAD CAM into the process.	Links to Year 8 rotation, basic sewing skills, how a product is created and why, what sort of textile materials are needed based on their key properties	Links to Year 8 rotation of cutting, sanding and shaping a material, recapping the key health and safety requirements for use of machinery and tools in the workshop.	Making links Year 7 + 8 rotations which have used overlapping skills such as design creation, software use and the construction and assembly of a finished product.	Links to Year 8 rotation, recapping on key skills and techniques to follow a recipe and produce an outcome whilst following H+S and food safety rules.	Links to Year 8 rotation of creating a brand and thinking about businesses in the real world and the key to having a successful brand/logo/identity.

Substantive knowledge headlines	Facts and concepts delivered/what happens: Students will recap on what skills and techniques were learned in Year 7 and will use the computer software to create a digital CAD design. Software will be re-taught. Students learn the key differences between softwoods, hardwoods and man-made boards and think about how these link to real world products that are used everyday.	Facts and concepts delivered/what happens: students will recognise and understand the need for creating textiles based products and how they are all around us in the real world, students learn the facts of each fabric and the most appropriate fabrics to use for each product. Students reintroduced to machinery which will be developed and mastered with a different emphasis on skills and assembly.	Facts and concepts delivered/what happens: students will recognise and understand how to analyse a product and pick apart the skills and knowledge needed to create their own, analysing previous products and taking inspiration from them. Students will learn about how this links to the wider world and see the purpose and reality of design and manufacture.	Facts and concepts delivered/what happens: Students complete a product analysis task. Looking at the work of others, analysing design and making features, generating themes and ideas. Students will recap on what skills and techniques were learned in Year 7 and in previous Year 8 rotations and will use the computer software to create a digital CAD design. Software will be re-taught.	Facts and concepts delivered/what happens: Students learn the food groups and elements of recipes, key ingredients, different methods and processes needed to create a dish from start to finish. Student will learn the tools needed for key skill: knife, cutting vegetables, rubbing in. Health and safety of the room covered. Food safety.	Facts and concepts delivered/what happens: The concept of branding is delivered, linking to what makes a good brand, what is a successful logo looking like, analysing existing brands and logos, how can a brand identity be built. Business terminology delivered with links to DT and the design world.
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Disciplinary knowledge headlines	How this happens: students will apply the skill of creating, constructing, and assembling a product, the tools and machinery that will be needed in the construction of the product. Computer software skills learned and developed. CAD skills should be built upon to master the skills and show clear progression from Year 7.	How this happens: Students use their recapped knowledge of hand stitching and using the sewing machine to create a wall hanging/cushion cover by combining the individual practical skills together to construct and assemble to fabrics and component parts together. Students continue to learn and practice using materials based on the theoretical knowledge they have gained.	How this happens: Students develop and further apply previously learned skills of cutting, sawing, sanding, constructing and decoration. Students actively work in a practical environment with tools and machinery. Realisation of progress from step to step when creating a product. Applying finishing skills, techniques and decoration.	How this happens: students will apply the skill of creating, constructing, and assembling a product, the tools and machinery that will be needed in the construction of the product. Computer software skills learned and developed. CAD skills should be built upon to master the skills and show clear progression from Year 7.	How this happens: Students will put their knowledge and theory into practice when completing spot practical tasks and tasks such as using the rubbing in method. Students navigate the practical tasks and organise themselves to adhere to health and safety rules in the classroom. Student see the process through from start to finish and will learn to use the oven, hob and tools, as well as washing up.	How this happens: Students research brands, take ideas and inspiration and incorporate these into their own identity and brand. Logos are created and images/fonts explored. Logo transferred for editing. Products explored for creation: Keyring, coaster, tote bag.
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Links to knowledge in future units	Skills will be utilised in future Year 9 rotations including RM, Graphics and Business projects. The skills learned in this rotation will also be beneficial if students go on to choose CAD/Resistant Materials as a DT options choice.	Organisation of a practical project, as well as designing and assembly skills will be used in future Year 9 rotations. The skills learned in this rotation will also be beneficial if students go on to choose Textiles as a DT options choice.	Skills will be utilised in future Year 9 rotations including, Graphics, CAD and Business projects. Practical skills will be further developed and mastered. The skills learned in this rotation will also be beneficial if students go on to choose CAD/Resistant Materials as a DT options choice.	Skills will be utilised in future Year 9 rotations including, Resistant Materials, CAD and Business projects. Practical skills will be further developed and mastered. The skills learned in this rotation will also be beneficial if students go on to choose Graphics as a DT options choice.	Learning the repeated use of machinery and tools will be needed again, how skills will be mastered and developed over future rotations, the concept of learning a skill and not forgetting it but utilising it effectively for future DT work. The skills learned in this rotation will also be beneficial if students go on to choose Food + Nutrition as a DT options choice.	Skills will be utilised in other Year 8 rotations including RM, Graphics and CAD projects. CAD skills will be further developed and mastered. The skills learned in this rotation will also be beneficial if students go on to choose Business as a GCSE options choice.
Key vocabulary	Computer Aided Design, Computer Aided Manufacture, Software, Creativity, Laser Cutter	Textiles, Machinery, Equipment, Materials, Sewing, Thread, Fabric,	Machinery, Equipment, Workshop, Health & Safety, Materials, Processes, Organisation	Product Analysis, Artist Research, Themes, Designs, Generating, Concepts, CAD, CAM, Graphical Imagery	Macronutrients, Micronutrients, Eatwell Guide, Food groups, Protein, Energy. Food safety.	Business, Branding, Identity, Logo, Company, Research



YEAR 10 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In GCSE DT students will specialise in the materials area of Graphics where they will focus on the knowledge and practical skills to design and develop paper and board based products. They will also build on knowledge from the rotation areas in KS3 to prepare them for their theory exam at the end of Year 11. At GCSE students will focus on design and make tasks that encourage creative thinking, problem solving and innovative design.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	CAD Skills and Q4 and Q6 theory	Branding and product design, Q1 and Q4 theory	Iterative Design, Q2 and Q6 theory	CAM skills and product finishes	Exam technique and theory	NEA
Topic	Practical skills - Candle project, Learning about brand identity, use of CAD software to develop logos, AI in design, branding boards. Theory - Sources of papers and boards, properties of materials (graphics, textiles and metals)	Practical skills - Development of 3D modelling using cuboid net as a starting point, sketching initial ideas in 3D (oblique/isometric), use of photoshop and 2D designs to produce candle box and sticker. Theory skills - DT and our world, properties of plastic, properties of timbers. End of unit test.	Practical skills - Noughts and crosses travel game project, drawing skills (isometric, exploded drawing), designer influence. Theory skills - Modern and smart materials, production methods, structural integrity. End of unit test.	Practical skills - Laser cutting product and producing travel game box. Joining methods, revisiting CAD/Drawing skills, annotating design work. Theory skills - Design strategies, print and surface finishes	Practical skills - Preparing for NEA (materials research, sustainability sheet) Theory skills - Applying theory to past paper questions, recapping question theory for exam.	Practical skills - Starting NEA (context analysis x 3, analysis of chosen context, mood board) Theory skills - Recapping exam knowledge with past paper as a do it now activity booklet
Links to prior learning	Practical - Links to Year 9 Business rotation, recap on the process of designing for a target user, revisiting CAD and what it means. Theory - Links to KS3 graphics and textiles	Practical - Links to use of CAD software, revisiting use of Kittl and how to export images into photoshop. Development of skills learnt in KS3 on 2D Design and photoshop and building of simple box nets. Theory - Links to KS3 resistant materials and work on sustainability (6R's), end of Y9 exam knowledge.	Practical - Links to use of CAD software, revisiting use of laser cutting from KS3 and considering engraving and cutting lines. Theory - Links to KS3 theory on Smart Materials and enhancing with further sampling, building on KS3 knowledge of production methods. Links to materials covered in Au1 and Au2.	Practical - Finishing of products to a high standard, annotation of design work, card and board joining methods. Theory - Builds on knowledge of specialist graphics from Au1 and papers and boards.	NEA - Using information on materials from the year so far to produce research sheets. Theory - considering past paper questions used across the year, revisiting command words	NEA - Links to previous work on designing for a target user. Theory - Revisiting Y10 exam paper

Substantive knowledge headlines	Students will explore design themes around seasons. What makes a successful logo? Kittl as a design tool. How can AI be used to assist in design development? Students will complete hand drawn design for logos and CAD designs. Students reintroduced to graphics and textile materials and learn the origins of these. This will link to previously taught properties and uses to build understanding. Introduction to Ferrous and non-ferrous metals.	Exploring what design development means. What is iterative design? Developing a cuboid box net. The difference between oblique and isometric drawing. Using grids to produce oblique and isometric sketches. Responsible design, new technologies wthin design and manufacture, product lifecycle. Revisiting and developing knowledge of timbers and plastcs, including types of materials and their specific uses linked to prior exam questions.	Introduction to designing to a theme/designer influence. Researching a chosen designer. Different 3D drawing methods introduced (I do, we do, you do), application of drawing skills to design work. Application of smart materials to design work in line with theory delivered. What is a smart/modern material? Consideration of different materials and their product application. Developing knowledge of production methods and their advantages and disadvantages (how can this be applied in an exam?), Completion of end of unit test to review knowledge application.	Modelling travel game, using binding tape to create joins for structural integrity (modelled), producing CAD file on 2D design, application of surface finish to the final product. Sampling exemplar annotation on design ideas. Exploring and sampling different surface finishes on papers and boards, vacuum forming with sampling.	Students will carry out research on possible materials, their properties, and suitability for different functions. Students will also research sustainability in preparation for their NEA project. Recapping theory for exam content, learning to apply theory to exam questions and developing exam technique.	Students are introduced to possible contexts and carry out an analysis. They will build on research skills developed earlier in the year to start forming ideas for their final product by creating a moodboard. Recapping theory for exam content, learning to apply theory to exam questions and developing exam technique.

Disciplinary knowledge headlines	How this happens: students will apply the skill of translating hand drawn designs into CAD drawings. CAD skills built upon from KS3 DT and Art to enhance mastery of using design software. Using CAD to present and enhance design proposals. Developing understanding of where papers and boards come from and why they have specific properties. Developing understanding of natural and synthetic fibres to develop knowledge of fibres and textiles. Understanding the difference between ferrous and non ferrous metals, including their properties.	How this happens: students will develop a design from a given starting point. Using grids to scaffold drawing techniques. Revisiting key Y9 photoshop skills and building on these by integrating kittl design work. Progression of skills into adding text, labelling and editing effects. Changing page layout and grid on 2D design to aid designing to scale. Developing understanding of product lifecycle and linking to familiar products, different technologies and energy sources used in design and manufacturing. Enhancing knowledge of timbers and plastics by looking at specific categories and named materials. Topic test to test knowledge of theory so far.	How this happens: students are given live demos through visualiser and graphics tablets for the 3D drawing methods. Research and design tasks are scaffolded and modelled with examples. Developing understanding of smart materials and production methods. Do now tasks and booklets to assist in learning and checking for understanding. End of unit test to assess exam knowledge against current grade boundaries.	How this happens: Students now working more independently to model and complete 2D design work with individual input where needed. Design work becoming more personalised. Annotation scaffolded and modelled with examples. Consideration of different surface finishes, supported by live exampls for students to see and feel. Vacuum forming demonstrated with students able to have their own turn and theory delivered alongside. Considering how the surface finishes and vacuum forming could enhance their travel game further.	How this happens: Research tasks are modelled with examples so students can complete and review work independently.. Developing understanding of exam technique and recapping theory content. Do Now tasks and booklets to assist in learning and checking for understanding.	Research tasks are modelled with examples so students can complete and review work independently.. Developing understanding of exam technique and recapping theory content. Do Now tasks and booklets to assist in learning and checking for understanding
Links to knowledge in future units	Skills will be utilised and applied in the branding project and expanded on by integrating multiple CAD programs together to create a final product. CAD skills will also be beneficial to future design work and NEA. Properties of papers and boads, textiles and metals will link to Q4 and Q6 knowledge in upcoming unit tests, do it now tasks and Year 10 exam.	Design development skills, drawing techniques and CAD/CAM skills will all be needed in the NEA. CAM skills revisited in next project. DT & Our World revisited in Q1 of upcoming test and exams, timber and plastics in Q4 of upcoming tests and exams.	Skills will be utilised and applied in future projects and NEA product as well as help embed specialist content requirements for Q6 of exam.. Smart Materials revisited in Q2 of upcoming test and exams, production methods in Q5 of upcoming tests and exams.	Application of surface finishes to NEA product as well as theory on this topic for the written exam. Production of a final product, within a given timeframe. Surface finishes frequently feature within Q6 of the exam.	Links to future learning are: Skills will be utilised and applied in future projects and NEA product. And help embed specialist content requirements for Q6 of exam.. Theory content and exam technique crucial for external exam.	Skills will be utilised and applied in future projects and NEA product. . Theory content and exam technique crucial for external exam.
Key vocabulary	Computer Aided Design, Computer Aided Manufacture, properties, synthetic, cellulose fibres, ductile, malleable	Iterative design, design development, lamination, finite, cross grain structure, thermosetting, thermoforming	Photochromic, Smart Material, Research, Isometric, Oblique	Embossing, debossing, UV Varnishing, lamination	Sutainability, give, name, explain, evaluate, analyse	Analysis, Context, Research, Conslusion



YEAR 10 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Hospitality and Catering students will specialise in developing their knowledge and skills within the food industry. They will also build on knowledge from the rotation areas in KS3 to prepare them for their theory exam at the end of Year 11. At GCSE students will focus on practical skills to produce dishes and explore how to plan, prepare, cook and present food.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Unit 1 Food safety in H&C	Unit 2 The importance of nutrition	Unit 2 Mini mock	Unit 2 Mini mock	Unit 1 Hospitality and catering industry	Unit 1 Hospitality and Catering Industry
Topic	Practical skills - Theory skills - 1.4.1 Food related causes of ill health. 1.4.2 symptoms and signs of food induced health. 1.4.3 preventative control measures of food induced health. 1.4.4 EHO	Practical skills - Theory skills - 2.1.1 understanding the importance of nutrition. 2.1.2 How cooking methods can impact on nutritional value.	Practical skills - Theory skills - 2.2.1 Factors affecting menu planning . 2.2.2 How to plan a production.	Practical skills - Theory skills - 2.4.1 Reviwing of dishes. 2.4.2 Reviewing own performance.	Practical skills - Theory skills - 1.1.1 H&C providers. 1.1.2 Working in the H&C industry. 1.1.3 Working condition in H&C. 1.1.4 contributing factors to the success of H&C provision.	Practical skills - Theory skills - 1.2.1 The operation of front and back of house. 1.2.2 customers requirements in H&C. 1.2.3 H&C provision to meet requirements. 1.3.1 Health and Safety in H&C provsion. 1.3.2 food safety.
Links to prior learning	Students should understand the basics of hygiene and safety from working in a food room at KS3.	Students should have prior learning on the macronutrients and will have demonstrated different cooking methos in previous practical lessons.	Some factors will link to KS3. Students have followed recipes in provious practical lessons.	Students will have evaluated dishes in KS3.	Possible KS3 links on providers and kitchen brigade.	Links to 1.4 food safety.

Substantive knowledge headlines	Students will learn a variety of factors that can cause ill health with food, such as allergens, food poisoning. Students will learn how these factors can be prevented. Students will learn the roles and responsibility of an EHO.	Students will learn the functions, food sources, excess and deficiencies for each macronutrient, micronutrient, water and fibre. Students will learn how cooking and preparing different foods can effect the nutritional value.	Students will learn how to plan a menu and consider factors, such as cost, portion control, the environment and organoleptic qualities. Students will learn how to plan for dishes in a practical lesson.	Students will be taught how to complete an evaluation for the dishes they have made and their own performance.	Students will learn a variety of different hospitality and catering providers. Students will learn the different types of employment and roles in the industry. Students will learn how different factors can make a provision successful.	Students learn how the front and back of house work in a food provision. Students will learn customer requirements. Students will learn specific legislation within the industry.
Disciplinary knowledge headlines	Understand and develop the difference between allergies and intolerances and identifying the visible and non-visible signs. Identify different types of food poisoning and exploring control measures to prevent this from happening. Studying the role of an EHO and their day to day responsibilities.	Students will develop a good understanding of each nutrient and record in a table format. Students will watch demonstrations and experiment with different cooking methods to understand the nutritional value.	Students will understand each factor and how it will affect menu planning. Students will choose dishes according to these factors and explain why in their mini Unit 2 mock. Students will create an in-depth time plan on two dishes they will make for their mini Unit 2 mock.	Students will have specific questions to answer to structure their evaluation.	Students will learn the difference between commercial/non-commercial and residential/non-residential provider and give examples of each. Students will be shown examples of different types of employments by looking at contracts and understanding the kitchen brigade. Students will apply this knowledge to exam practice.	Students will model workflow charts and identify special equipment. Students will understand and develop how to meet the needs of customers with specific needs. Students will complete risk assessments and HACCP forms. This knowledge will be applied to exam practice.
Links to knowledge in future units	Food safety and hygiene can be applied on every practical lesson and Unit 1 exam.	Students will need to write about a selection of macro and micro nutrients for their unit 2 NEA.	Students will submit a body of work similar for unit 2 in year 11.	Students will submit a body of work similar for unit 2 in year 11.	links to the following modules in 1.2 and unit 1 exam.	Unit 1 theory exam.

Key vocabulary	Cross contamination. Bacteria. Preventative. Environmental Health Officer.	Macronutrients. Micronutrients. Excess. Deficiency.	organoleptic qualities. Contingencies. Mise en place.	Reviewing. Evaluating.	commercial. Residential. Personal attributes. Kitchen Brigade.	COSHH. PPER. RIDDOR. HACCP. Risk assessments. Workflow.
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YEAR 10 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In GCSE DT students will specialise in the material area of Resistant Materials where they will focus on the knowledge and practical skills to design and develop timber, metals and plastic based products. They will also build on knowledge from the rotation areas in KS3 to prepare them for their theory exam at the end of Year 11. At GCSE students will focus on design and make tasks that encourage creative thinking, problem solving and innovative design.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Introduction to practical skills, wood joinery	Developing practical skills, plastics	Introduction to practical skills, wood joinery	Introduction to CAD/CAM Skills	Introduction to modelling skills	Starting final NEA
Topic	Practical skills - Wood Joints Theory skills - Timbers, Metals, Industry, Scales of production, environmental issues	Practical skills - Plastics and woods Theory skills - Cultures, Paper and Boards, Plastics, Energies, Material Finishes	Practical skills - Extending material types, joinery Theory skills - Forces and Stresses, Improving functionality, smart and new materials	Practical skills - CAD/CAM Theory skills - Textiles, Design decisions, Sustainability, Mechanical Devices, composite materials	Practical skills - Modelling + Design, Mini NEA Theory skills - primary and secondary research, the work of others, design strategies, communicating design ideas	Theory skills - material management, tolerances, specialist tools, selecting materials and components.

Links to prior learning	Links to prior learning are: Types of wood joints learned at KS3	Links to prior learning are: Developing the skills and wood joints learned in AU1 to introduce them into extension work and the 'game' practical	Links to prior learning are: Looking over previously learned practical skill and developing them further, refining practice and perfecting misconceptions	Links to prior learning are: CAD/CAM skills learned at KS3, developing practice and recalling technique	Links to prior learning are: Modelling skills learned in KS3 and Y10 extensions work, completing mini modelling tasks	Links to prior learning are: Links to the mini NEA and how this should be developed further and expanded upon.
Substantive knowledge headlines	Facts and concepts delivered/what happens: Students are taught 8 different wood joints and the theory behind this, putting the wood joints into reality situations and showing students the bigger picture, why will these wood joints be useful in Y11?	Facts and concepts delivered/what happens: Students are taught how to modify different plastics and the theory behind this, putting the plastic shaping into reality situations and showing students the bigger picture, why will these methods be useful in Y11?	Facts and concepts delivered/what happens: Students are taught how to develop their different practical skills and the theory behind this, refining and developing skills to achieve a more high quality result, show the bigger picture, why will these methods be useful in Y11?	Facts and concepts delivered/what happens: Students are taught various CAD/CAM skills and are reminded of laser cutting and the theory behind this, putting the CAD/CAM laser cut result into reality situations and showing students the bigger picture, why will these CAD CAM Skills be useful in Y11 NEA work and for isometric designs?	Facts and concepts delivered/what happens: Students are introduced to a mini NEA to get them thinking about/preparing for Y11. Practice of the structure will be delivered, previous examples will be modelled. The bigger picture will be put into context.	Facts and concepts delivered/what happens: Students are taught the structure and overview of the NEA, the section breakdown and the marks awarded. Students are taught research methods and =how best to use time.

Disciplinary knowledge headlines	How this happens: students are shown key modelled videos on how to complete each wood joint and what equipment and technique is needed. They carry out the wood joint method and review their progress. Key practical skills are independently carried out	How this happens: students are shown key modelled videos on how to complete each spot practical to include shaping plastics and what equipment and technique is needed. They carry out the method and review their progress. Key practical skills are independently carried out	How this happens: students are shown key modelled videos on how to complete each extension task and development practical/spot practical tasks and what equipment and technique is needed. They carry out the method and review their progress. Key practical skills are independently carried out	How this happens: student are shown teacher demonstrations on how to complete each CAD/CAM task and what equipment and technique is needed. They carry out the digital software methods and review their progress. Key CAD/CAM skills are independently carried out. Decoration is applied.	How this happens: students are shown previously completed examples on how to complete each stage of the Mini NEA and what equipment and technique is needed. They carry out the method and review their progress. Key research, design and modelling skills are then carried out independently.	How this happens: students are shown previously completed NEA examples from various ability levels on how to complete each stage of SECTION A NEA and how to lay out their coursework. They carry out the method and review their progress. Key research and analysis is applied.
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Links to knowledge in future units	Links to future learning are: Using these wood joints in other practical projects, mini tasks and in their final Y11 practical making project for NEA	Links to future learning are: Using these plastic shaping methods in other practical projects, mini tasks and in their final Y11 practical making project for NEA	Links to future learning are: Using these wood joints/plastics and key skills in other practical projects, mini tasks and in their final Y11 practical making project for NEA	Links to future learning are: Using these CAD/CAM skills in other practical projects, mini tasks and in their final Y11 practical making project for NEA	Links to future learning are: Using these practice method of completing Mini NEA tasks to better understand how the NEA will be structured and the expectations of completing coursework.	Links to future learning are: Understating that the NEA sections will continue and be marked according to the mark scheme, resulting in this being 50% of their final grade.
Key vocabulary	Wood joints Technique Organisation	Plastic Shaping Technique Assembly	Application Development	Software Laser Cutting Decoration	NEA Coursework Research	NEA Coursework Research



YEAR 10 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In GCSE DT students will specialise in the material area of Textiles where they will focus on the knowledge and practical skills to design and develop fibre based products. They will also build on knowledge from the rotation areas in KS3 to prepare them for their theory exam at the end of Year 11. At GCSE students will focus on design and make tasks that encourage creative thinking, problem solving and innovative design.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Surface Decoration Skills and Q4 and Q6 theory	Developing Practical Skills, Q1 & Q4 Theory	Textiles Construction skills and design, Q2 & Q5	Introduction to modelling	Exam technique and theory	NEA
Topic	Practical skills -Surface Decoration Theory - skills - Sources of Fibres, Fabric contruction, Properties of materials (Textiles and graphics)	Practical skills - Constructions skills/Fabric Manipulation Theory skills - Theory skills - DT and our world, properties of plastic, properties of timbers. End of unit test.	Practical skills - Zipped pouch bag, developing research (moodboard) and design skills - putting sampling skills into practice.. Theory skills - Modern and smart materials, production methods, structural integrity. End of unit test.	Practical skills - Modelling waistcoat/bodice in paper and calico. Designer Research. Theory skills - Design strategies, surface finishes	Practical skills - Preparing for NEA (materials research, possible shapes) Theory skills - Applying theory to past paper questions, recapping question theory for exam.	Practical skills - Starting NEA (context analysis x 3, analysis of chosen context, mood board) Theory skills - Recapping exam knowledge with past paper as a do it now activity booklet
Links to prior learning	Practical - Links to Year Textiles 9/8 projects. Theory - Links to KS3 graphics and textiles	Practical - Links to KS3 projects. Theory - Links to KS3 resistant materials and work on sustainability (6R's), end of Y9 exam knowledge.	Links to prior learning are: Links to previous terms work. Research and design skills link back to textiles and graphics KS3 projects. Theory links to Y9 exam knowledge.	Links to prior learning are: Practical links to making skills in previous terms. Modelling links back to Y9 Bag project.	Links to prior learning are: Links back to skills developed in pouch project. Theory skills link to exam technique developed in KS3 and via topic tests. Content from previous theory lessons in KS4.	Links to prior learning are: Links to pouch and modelling project and how the skills can be developed for NEA. Theory - Previos theory lessons in KS4/ exam walkthroughs in previous term.
Substantive knowledge headlines	Students will go back to basics in surface decoration, learn different print methods and ways to enhance the surface of textiles materials Students reintroduced to graphics and textile materials and learn the origins of these. This will link to previously taught properties and uses to build understanding. Introduction to Ferrous and non-ferrous metals.	Revisiting and developing knowledge of tools and equipment (using the sewing machine). Learning different textile construction techniques, (seams/darts,pleats,tucks) and how to install different fastenings, Responsible design, new technologies within design and manufacture, product lifecycle. Revisiting and developing knowledge of timbers and plastics, including types of materials and their specific uses linked to prior exam questions.	Facts and concepts delivered/what happens: Introduction to designing to a theme - creating design ideas and putting surface decoration and construction skills into practice. Students will learn pattern language and use a commercial pattern to make a zipped pouch. Smart materials, Technical Textiles and composites. Batch/Mass/one-off production and the use of CAD/CAM in production.	Facts and concepts delivered/what happens: Students will continue to develop their understanding of using commercial and block patterns to model a garment (WAISTCOAT/BODICE) in paper and calico. Students will start designer research and respond to their findings with design ideas - designing garments on a figure and rendering skills developed and built on. Design strategies. Learning about different surface finishes for textiles and how material properties can be enhanced.	Facts and concepts delivered/what happens: Students will carry out research on possible materials, their properties, and suitability for different functions. Students will also research possible shapes and style of textile products in preparation for their NEA project. Recapping theory for exam content, learning to apply theory to exam questions and developing exam technique.	Facts and concepts delivered/what happens: Students are introduced to possible contexts and carry out an analysis. They will build on research skills developed earlier in the year to start forming ideas for their final product by creating a moodboard. Recapping theory for exam content, learning to apply theory to exam questions and developing exam technique.
Disciplinary knowledge headlines	students are given live demos or recorded tutorials on how to complete each surface decoration technique and what equipment is needed. They then carry out the decorative technique, and review their work - present work neatly in a portfolio sketchbook. Developing understanding of where papers and boards come from and why they have specific properties. Developing understanding of natural and synthetic fibres to develop knowledge of fibres and textiles. Understanding the difference between ferrous and non ferrous metals, including their properties.	How this happens: students are given live demos or recorded tutorials on how to complete each surface decoration technique and what equipment is needed. They then carry out the construction technique, and review their work - present work neatly in a portfolio sketchbook Developing understanding of product lifecycle and linking to familiar products, different technologies and energy sources used in design and manufacturing. Enhancing knowledge of timbers and plastics by looking at specific categories and named materials. Topic test to test knowledge of theory so far.	How this happens: students are given live demos or recorded tutorials on how to complete the manufacture of their zipped pouch bag. Students are encouraged to use sample sketch book to refer back too. Research and design tasks are scaffolded and modelled with examples. Developing understanding of smart materials and production methods. Do now tasks and booklets to assist in learning and checking for understanding.	How this happens: Students are given demos and examples to help them model their garment, students can then carry out the modelling task independently. Research and design tasks are modelled with examples. Developing understanding of design strategies and surface finishes. Do Now tasks and booklets to assist in learning and checking for understanding.	How this happens: Research tasks are modelled with examples so students can complete and review work independently.. Developing understanding of exam technique and recapping theory content. Do Now tasks and booklets to assist in learning and checking for understanding.	How this happens: Research tasks are modelled with examples so students can complete and review work independently.. Developing understanding of exam technique and recapping theory content. Do Now tasks and booklets to assist in learning and checking for understanding
Links to knowledge in future units	Skills will be utilised and applied in future projects and NEA product. The samples are kept as reference for NEA and the reviewed written aspect of the sketchbook help embed specialist content requirements for Q6 of exam.. Properties of papers and boards, textiles and metals will link to Q4 and Q6 knowledge in upcoming unit tests, do it now tasks and Year 10 exam.	Skills will be utilised and applied in future projects and NEA product. The samples are kept as reference for NEA and the reviewed written aspect of the sketchbook help embed specialist content requirements for Q6 of exam.. DT & Our World revisited in Q1 of upcoming test and exams, timber and plastics in Q4 of upcoming tests and exams.	Skills will be utilised and applied in future projects and NEA product. And help embed specialist content requirements for Q6 of exam.. Smart Materials revisited in Q2 of upcoming test and exams, production methods in Q5 of upcoming tests and exams.	Links to future learning are: Skills will be utilised and applied in future projects and NEA product. And help embed specialist content requirements for Q6 of exam.. Design strategies and surface finishes revisited in future exam and assessments.	Links to future learning are: Skills will be utilised and applied in future projects and NEA product. And help embed specialist content requirements for Q6 of exam.. Theory content and exam technique crucial for external exam.	Links to future learning are: Skills will be utilised and applied in future projects and NEA product. Theory content and exam technique crucial for external exam.
Key vocabulary	aplique, staple, filament, properties, synthetic, cellulose fibres, ductile, malleable	finite, cross grain structure, thermosetting, thermoforming	Photochromic, Smart Material, Research, Moodboard	Notches, Darts, Calendering, Embossing	Polyester, Nylon, Calico, Justify, Analyse, Describe.	Analysis, Context, Research, Conclusion



YEAR 11 DT CURRICULUM PROGRESSION OVERVIEW

Subject Curriculum Intent: In Y11 GCSE DT students will complete their NEA which is worth 50% of their final GCSE Grade. The context of the NEA will be given via the exam board. Students will work to produce a final working prototype, alongside a portfolio or work demonstrating their skills in Research, analysis, design, design development and modelling, making skills and evaluation. They will follow an iterative design process throughout. The final term of Year 11 will be focussed on revisiting Y10 theory knowledge in preparation for their final GCSE exam, which will be the remaining 50% of their grade.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Theme	Research and analysis	Designing and modelling	Modelling and making prototype	Making prototype and evaluating	Exam revision	Exam revision
Topic	Researching given context and considering design opportunities, analysis of existing products, construction methods research, designer research, target user research	Initial design ideas linked to chosen context, modelling chosen design idea and evaluating model to develop it further. Iterations of designs and models.	Continuation of model and design development, preparation of materials (CAD/Joints), beginning construction of final prototype	Finishing final prototype, evaluating prototype against chosen context and specification	Revisiting theory content for final exam, use of past papers and revisiting Y10 exam and do it now exam questions.	Revisiting theory content for final exam, use of past papers and revisiting Y10 exam and do it now exam questions.
Links to prior learning	NEA sheets started at the end of Y10 and summer work completed. Product analysis skills from KS3 and Y10 (ACCESS FM), mock NEA style sheets and tasks from Y10.	Drawing methods from Y10 and KS3, application of construction methods learnt in Y10 to design ideas and annotation, modelling skills.	Modelling skills from AU2, CAD/CAM skills from KS3/KS4, knowledge of materials from Y10 theory, construction methods from KS3/KS4.	Finishing skills from previous practical products, evaluation skills	Y10 theory, exam technique/command words	Y10 theory, exam technique/command words
Substantive knowledge headlines	Researching context via mindmaps, producing research sheets linked to chosen context to lay foundations for design ideas. Sheets produced to match requirements of the NEA mark scheme around researching the given context.	Drawing of initial design ideas based on research. Encouraging innovation and creativity. Students using taught drawing skills from Y10 and annotating designs. Students to model their chosen idea and test via feedback from target user. Models and designs then developed in light of feedback and any success or failure in the previous iteration.	Consideration of suitable materials and surface finishes on final model. Students may model to scale. Construction of final prototype can begin once model and idea are finalised.	Making final prototype. Final prototype will be evaluated against the chosen context to consider areas of success and areas for development.	Revising areas that have not been successfully answered in prior testing. Practicing how to answer extended answer questions. Properties and uses of materials.	Revising areas that have not been successfully answered in prior testing. Practicing how to answer extended answer questions. Properties and uses of materials.

Disciplinary knowledge headlines	RM students will primarily produce their work on powerpoint and can present their information in their own style. Textiles and Graphics will use a sketchbook tyle format where students are free to present their work creatively. Guidance for each stage of the research delivered to the group via live modelling and exemplar material. Information delivered holistically, in line with JCQ guidelines.	Design ideas hand drawn, with use of light boxes and gridlines to scaffold. Expectations will be modelled and exemplar ideas shared to make expectations clear. Guidance for each stage of the research delivered to the group via live modelling and exemplar material. Information delivered holistically, in line with JCQ guidelines.	Models produced by hand and/or machine. Demonstrating use of a variety of construction methods. Reviewing previous examples to consider how to integrate a variety of techniques together for the higher mark bands. Organisation around the construction of final idea via a production plan in the NEA portfolio and/or a flowchart of making. Feedback and guidance delivered holistically, in line with JCQ guidelines.	Final prototype produced safely and to a high standard. Students may need to adapt and modify as part of the iterative process. Written evaluation completed in portolfio with testing and feedback from the target user. Feedback and guidance delivered holistically, in line with JCQ guidelines.	Revisiting key topic areas that are common in the exam. Reviewing knowledge confidence with students. Highlighting areas of common minsconception from Y10 and Y11 as well as those reported from the examiners report. Completion of past papers.	Revisiting key topic areas that are common in the exam. Reviewing knowledge confidence with students. Highlighting areas of common minsconception from Y10 and Y11 as well as those reported from the examiners report. Completion of past papers.
Links to knowledge in future units	Research should inform the design ideas and development of the final prototype.	Design ideas should guide the modelling of the final prototype as well as feedback from the target user.	Model/models should show progression and development towards the final design idea. The making of the final prototype should be the foundation from the contruction of the final prototype.	The iterative design process will prepare students for exam questions. It will prepare RM students for Section 2 of their paper and Gr/Tex students for Q5 of their paper. Students are exepected to analyse a given product and consider certain aspets of it such as a given specification, health and safety, ergonomics and anthropometrics.	Preparation for final GCSE exam	
Key vocabulary	context, analysis (aesthetics),	design development, prototype, dimensions	Construction, iteration	Evaluating, testing	Ergonomics, anthropometrics	give, name, explain, evaluate, analyse