

MOOR PARK HIGH SCHOOL: CURRICULUM

Key Stage 3 DT Carousel Long Term Planning

Year 7 INTENT: Pupils will develop essential creative and practical skills to design, implement and refine products. Ranging from woodwork, to nutritional information and textiles. Pupils will spend approximately 13 weeks in each rotation.

Faculty Area: Art, Performance and Technology (Design Technology).

Year 7	Transition	Autumn 1 (Rotation 1)	Autumn 2 (Rotation 1)	Spring 1 (Rotation 2)	Spring 2 (Rotation 2)	Summer 1 (Rotation 3)	Summer 2 (Rotation 3)	
	'Go big' transition book	Design Technology	Design Technology	Food Technology	Food Technology	Textiles Project	Textiles Project	
Knowledge	<p>Understanding some of basic processes used in the home i.e Cutting (shearing), Assembly (gluing).</p> <p>Be able to show that making mistakes or failure to complete a task is not the end of the road. In fact, it's the beginning of another road/journey to progressing your learning.</p> <p>Reflection Optimism Resilience responsibility</p>	<p>Pupils will use a wide range of materials to design and make products. In this project pupils will work out their ideas with some accuracy, taking into account how products are made, who will use them, the material that will be used and their appearance.</p>	<p>They will develop their understanding of making and expand their design (CAD) skills. They will use a range of techniques, equipment (Hardware) and materials. The main aim of this project is to develop pupils understanding of CAD/CAM techniques</p>	<p>Pupils will gain knowledge about how to stay safe in a kitchen setting and being aware of their surroundings. Pupils will gather knowledge on how to make a selection of basic products that they can recreate at home or modify to create a different product.</p>	<p>Continuation of Autumn term 1: Please note that practical's may not happen in order due to holidays, teacher presence etc.</p>	<p>In this unit pupils will create bunting and develop the required knowledge. Pupils will gain an understanding of the design process and research required when designing and making a product. They will understand the concept of draft designs.</p>	<p>Pupils will understand and develop own ideas based on current existing products. They will understand specific vocabulary throughout the unit.</p> <p>They will learn the importance of finish in a product.</p> <p>They will understand how to create a comprehensive evaluation of their work.</p>	
Skills	<p>To develop their reasoning skills when it comes to choosing a particular design: Curiosity Reflection The correct use of the English language (words and phrases)</p>	<p>Students will be given a focused practical task to make a tangram puzzle to a set specification. They will develop specific design skills which are paper and computer based.</p>	<p>The project allows pupils to understand basic principles of, manufactured board & joints, hardware and software and health & safety. This will lead them onto developing specific drawing skills used the CAD software</p>	<p>Pupils will develop their knife skills learning two basic knife techniques (Claw grip and bridge hold). Pupils will also learn to become independent and how to follow a method accurately, so that they can produce products of a high quality.</p>	<p>Pupils will continue to practice their knife skills as well as learning to become more independent in practical lessons. Pupils will be able to use their clock reading skills to know when a product needs removing from an oven.</p>	<p>Pupils will be able to research existing products to influence their own designs and present their findings in a well-presented format. They will learn how to create a comprehensive annotated design.</p>	<p>Pupils will create bunting with an audience in mind. They will learn how to thread a needle, knot the thread and create a range of stitching techniques</p>	
Connections to previous learning	<p>Activities which have been explored and utilised in primary school (model making, etc)</p>	<p>Design work carried out in primary school</p>	<p>Computer work carried out in primary school. This could also include any hobbies which the pupils have been engaged in.</p>	<p>Each practical links into the previous lessons theory, whether it is working safely in the kitchen using a sharp knife or using the measuring scales accurately when making flapjacks etc.</p>	<p>Each practical links into the previous lessons theory, whether it is working safely in the kitchen using a sharp knife or using the measuring scales accurately when making flapjacks etc.</p>	<p>Pupils may have been taught similar based skills in primary school or at home.</p>	<p>Pupils will use previous learning and understanding to complete a final ice cream or ice lolly felt piece using a variety of stitches and colours to add to the group final piece.</p>	
Assessment	<p>Group discussion and interaction</p>	<p>Point 1</p>	<p>Point 1</p>	<p>Point 1: Pupils will complete a flowchart on how to make fairy cakes.</p>	<p>Point 1: End of unit test. Exam style questions (where possible) in which</p>	<p>Point 1</p>	<p>Point 1</p>	

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	with individual pupils	<p>To demonstrate if they are able to draw an accurate tangram puzzle on paper within a given tolerance. If the drawing is out of tolerance, then they are required to draw it again</p> <p>Point 2 To be able to independently draw using the skills developed throughout the computer lessons on accurate CAD design of their puzzle</p> <p>Point 3 Completing the comprehension exercise which relates to the use of paper and varying sizes</p>	<p>End of unit test. Exam style questions where possible in which they use their knowledge of what we have been learning about in this rotation</p> <p>Point 2 End of unit evaluation on the project. An analysis of how well the project was delivered, based on the specification points</p>	<p>They complete this after watching a demonstration. The purpose is to include all the points in the correct order so that another person could follow their method. PUPILS, THEN USING THEIR FEEDBACK, WILL PRODUCE A NEW FLOWCHART FOR A DIFFERENT PRACTICAL</p> <p>Point 2: Fairy cake practical. Pupils produce a batch of 10-12 fairy cakes and are assessed on how independent they have been as well as the finished outcome of their product.</p>	<p>pupils use their knowledge of what we have been learning about in this rotation</p>	<p>Pupils will create a design for their bunting which will be assessed against a criterion.</p> <p>Point 2 Homework, pupils will collect research on ice cream lolly wrappers. Their analysis of each will be marked.</p>	<p>The final product will be marked against an assessment criterion which will be shared with the pupils.</p> <p>Point 2 Pupils evaluation of the task will be marked.</p>
Homework	Different types of materials used in the home when items are bought	<p>1.To research the origins of 'Chinese puzzles' [tangram]. Establish the reasons for their production, use and sales. What are the rules governing a tangram puzzle?</p> <p>2.Create a fact sheet showing the different types of 'wood' you could buy, the standard form it may come in and categorise into the three areas: Man made boards, softwood and hardwood.</p>	<p>1.Keywords and their meanings to be completed by the pupils. This will help them during the CAD design stages and final evaluation stage.</p> <p>2.Put together a convincing and creative poster that will encourage people to be more environmentally friendly. Think about all the news stories that have been talked about in the newspapers and on the television regarding global warming, saving the planet and re-using products for other purposes.</p>	<p>Pupils will be expected to bring in their ingredients for their practical, which are put onto SMH.</p>	<p>Pupils will complete a research project and create an information leaflet about what food poisoning and food hygiene is and what the consequences are to a restaurant if they are not clean.</p>	<p>Pupils will be required to collect some market research on lolly pops.</p> <p>They will also be required to collect beads and embellishments to add to their design.</p>	<p>Pupils will be required to collect lolly pop packaging to carry out market research. This will be analysed in detail.</p>
Cultural Capital	Shopping trips, observing different types of foods, packaging materials and the shapes differing.	<p>Watch: 'Engineering Connections: Why the designers require to be accurate'. What are the key factors which are taken into consideration</p>	<p>Watch: 'Engineering Connections: How the designers go about being accurate'. What is the level of accuracy needed for different types of products</p>	<p>Watch: 'Junior Bake off'. Pupils can watch programmes like this so that they can see how children in a similar age range to themselves organise their work space and therefore be more organised in a kitchen</p>	<p>Attend: If there is a local food festival then pupils may want to attend it in their own time. Please note that they may not be on at all.</p>	<p>Watch video on different sowing techniques</p>	<p>Watch video on different sowing techniques</p>
Literacy	Exploring different literature found on packaging, toy boxes and clothes labels. This will enhance their understanding in the future	<p>Completing their puzzle challenges in the booklet and giving a reason for their choices</p> <p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>Expressing their opinion on their personal thoughts regarding a particular product or design</p> <p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>De Bono's Hats: Pupils will work in groups and answer questions that look at piece of adapted kitchen equipment from different points of view for example what they like about the product and what would they improve. This will be made accessible by writing the questions in a way that are able to be understood by weaker abilities and written in a different way for more able.</p> <p>Key Words and Sentence Starters: Pupils will read through the recipes for their practical's, which are displayed on the board and pick out key information such as oven temperature and time to cook/bake. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>Key Words: During a demonstration, pupils will hear some key words being used in the correct context and in the written element of the lesson, pupils will be asked to incorporate these words into their work.</p> <p>Key Words and Sentence Starters: Pupils will read through the recipes for their practical's, which are displayed on the board and pick out key information such as oven temperature and time to cook/bake. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>
Numeracy	The use of a ruler in math's lessons. How they measure given shapes in school	<p>The use of a ruler, understanding the difference between MM and CM in a DT context. How this affects how they interpret data in the future.</p>	<p>The use of a ruler, understanding the difference between MM and CM in a DT context. How this affects how they interpret data in the future. Being able to apply this new found knowledge in different contexts i.e. measuring 3D rather than 2D.</p>	<p>Weighing and measuring: One lesson will focus on using weighing scales and measuring jugs accurately</p> <p>Weighing and measuring: for practical's including fairy cakes and chocolate flapjacks</p>	<p>Weighing and measuring for practical's including fairy cakes and chocolate flapjacks</p> <p>Timing: Using a clock to time how long their products need to be in the oven for without having to rely on the timer on the oven.</p>	<p>Measuring: Pupils will be required to measure material and work out size to ensure consistency.</p>	<p>Measuring: Pupils will be required to measure material and work out size to ensure consistency.</p>
CIAG		<p>Product Designers: How important is measuring accurately?</p>	<p>Product Designers: How important is measuring accurately?</p>		<p>Nutritionists and Dieticians:</p>	<p>Seamstress: Use sowing techniques to resize different materials</p>	<p>Seamstress: Use sowing techniques to resize different materials</p>

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		Manufacturer: How they use the information supplied by the Product Designer to make products?	Manufacturer: How they use the information supplied by the Product Designer to make products?	Product Designers: What do they need to take into consideration when designing a new product? Market Researchers: How do they collect evidence from the public? Engineers: How do they use flowcharts to help complete their work?	What do they do and how do they keep people healthy?	Dress maker: Bespoke dresses Taylor: Create and make to fit suits.	Dress maker: Bespoke dresses Taylor: Create and make to fit suits.	

Key Stage 3 Long Term Planning

Year 8 INTENT: Pupils will be challenged to further develop their practical skills learned in the previous year to create, implement and refine more complex products. These products range from woodwork, to food and music production. Pupils will spend approximately 13 weeks in each rotation.

Faculty Area: Art, Performance and Technology (Design Technology).

Year 8	Autumn 1 (Rotation 1)	Autumn 2 (Rotation 1)	Spring 1 (Rotation 2)	Spring 2 (Rotation 2)	Summer 1 (Rotation 3)	Summer 2 (Rotation 3)	
	Design Technology	Design Technology	Food Technology	Food Technology	Music Technology	Music Technology	
Knowledge	<p>PROJECT 1: Souvenir Coin In this project pupils will work out their ideas with some precision, taking into account how products are made, who will use them, the materials that will be used and their appearance. They will develop their understanding of making and expand their practical skills</p> <p>PROJECT 2: Pendant Design The pupils will use their existing knowledge of jewelry. In particular any jewelry they have come across at home or on display.</p>	<p>They will use a range of tools, machinery and materials. The main aim of this project is to develop pupils understanding of manufacture, through the use of traditional production techniques and their understanding of CAD/CAM techniques from the previous projects (Yr 7)</p>	<p>Pupils will gain knowledge about different scientific reactions, such as dextrinization and coagulation. As they looked at macronutrients in Year 7, pupils will learn about some of the different micronutrients and the benefits of eating them. Pupils will expand on this knowledge through their practical work as each practical will look at what we have learnt about in the previous lesson, so they can see it in action</p>	<p>Continuation of Autumn term 1: Please note that practical's may not happen in order due to holidays, teacher presence etc.</p>	<p>Pupils will develop an understanding of how music is created and edited. They will design and edit an existing piece of music. This is done using drag and drop programming blocks and text based language. This will help to support students logical and problem-solving abilities.</p>	<p>Pupils will develop an understanding of how to create and edit a piece of music from scratch using the features on Sonic Pi. They will develop an understanding of the importance of professional editing. They will understand the importance of feedback and self-evaluation.</p>	
Skills	<p>PROJECT 1: Souvenir Coin Students will be given a focused practical task to make a Souvenir coin display stand to a set process. The project allows pupils to understand basic principles of, wood, wood to other materials joints, hand tools and equipment, joining techniques, health & safety, CAD/CAM techniques.</p> <p>PROJECT 2: Pendant Design The pupils will have the chance to design their own pendant based on the work of a specific designer. The skills gained in Yr7 and in project 1 will be enhanced. The ability to create an accurate mould will be a key test</p>	<p>PROJECT 1: Souvenir Coin The project builds upon design and making skills previously learnt and helps to combine the traditional with the modern. Pupils will also be introduced to other areas of design including: To enable pupils to develop their practical skills.</p> <p>PROJECT 2: Pendant Design The project helps to refine the designing phase and being able to follow specific rules governing the casting/moulding process.</p>	<p>Pupils will improve the skills that they have learnt in Year 7 including knife safety and weighing and measuring. As we cook with raw meat in some of the practical's, pupils will also be able to identify when it has cooked through properly and is therefore safe to eat.</p>	<p>Pupils use their time management skills to ensure they can complete their practical work on time. They will be able to do this using the information/PowerPoint provided on the board.</p>	<p>Pupils will develop their programming skills as well as their listening skills. They will learn how to use features on a music editing software called Sonic Pi. They will learn how to cut, paste and integrate musical pieces.</p>	<p>Pupil will develop their creative skills and learn how to produce a piece of music from scratch. They will edit samples and synths to create a final piece. Following a comprehensive design phase. They will learn how to act on feedback and create redrafts of versions.</p>	
Connections to previous learning	<p>PROJECT 1: Souvenir Coin Building on the basic foundations of CAD/CAM exposure in yr7</p> <p>PROJECT 2: Pendant Design Implementing more specific tools from the CAD software not previously used but having already had some familiarity in Yr7/8.</p>	<p>PROJECT 1: Souvenir Coin Using the H&S knowledge from yr7 to engage with materials and machinery in a safe and controlled environment</p> <p>PROJECT 2: Pendant Design Using the fame finishing process but also adding some hand tools into the overall process of finishing and polishing</p>	<p>Pupils will use the knowledge that they gained in Year 7 to complete a range of more challenging practical's and incorporating the use of different pieces of equipment within the same practical, rather than focusing on just one piece.</p>	<p>All lessons are catered that the practical lesson supports what they have learnt about in the previous lesson. Sometimes a practical maybe completed first so that pupils have a visual reference to support their learning.</p>	<p>Pupils may have used audacity or similar less sophisticated software I primary school. Some skills developed may transferable.</p>	<p>Pupils will used the skills developed in the first half of the rotation to create their piece.</p>	

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Assessment	<p><i>Point 1</i> Be able to demonstrate accurate skills in using the machinery and with safety in mind at all times</p> <p><i>Point 2</i> To be able to independently draw using the skills developed throughout the computer lessons an accurate CAD design of their chosen theme</p> <p><i>Point 3</i> Record an appropriate plan, outlining the methods and processes used to achieve a favorable outcome</p>	<p><i>Point 1</i> End of unit test. Exam style questions where possible in which they use their knowledge of what we have been learning about in this rotation</p> <p><i>Point 2</i> End of unit evaluation on the project. An analysis of how well the project was delivered, based on the specification points</p>	<p>Point 1: Pupils will complete a practical, where they will make a batch of 10-12 mini quiches using fillings of their choice. They will be assessed on their independence/accuracy and quality of their product</p> <p>Point 2: Pupils will complete an evaluation, where they look at what they did well at in their practical as well as what they can improve. They will then make suggestions for improvement and how they would change their product and explain why.</p>	<p>Point 1: End of unit test. Exam style questions (where possible) in which pupils use their knowledge of what we have been learning about in this rotation</p>	<p>Point 1: The design of the program created in Soni Pi</p> <p>Point 2: The outcomes of the first finished music piece will be marked and assessed.</p>	<p>Point 1: The piece created on Sonic Pi will be marked against a criterion.</p> <p>Point 2: The pupils evaluation will be marked against a criterion.</p>
Homework	<p>PROJECT 1: Souvenir Coin Produce a convincing and thoughtful marketing strategy to be able to sell their chosen themed souvenir</p> <p>PROJECT 2: Pendant Design Re-designing an existing product with a given designers theme</p>	<p>PROJECT 1: Souvenir Coin Redesign an existing souvenir based on the knowledge they have gained about the process of 'design'</p> <p>PROJECT 2: Pendant Design Research and analysis of the different methods of Moulding/Casting in different industries.</p>	<p>Pupils will be expected to bring in their ingredients for their practical, which are put onto SMH.</p>	<p>Pupils will complete a research project and present it in the form of a poster. They will be expected to look at the roles that different ingredients play in a cake and look at alternative ways to make them healthier.</p>	<p>Pupils will be required to research music pieces and create a homework based on their findings.</p>	<p>Pupils will be required to answer questions on the programming text required in Sonic Pi to develop their understand of the software.</p>
Cultural Capital	<p>Souvenirs/Jewelry around the world and their symbolism/significance. How the availability of materials and methods determines the design/product on offer</p>	<p>Watch: Industrial processes which shaped our lives. Discussion on the nature of the processes which are devised or modified to help create the products</p>	<p>Watch: Pupils can watch Masterchef and see how amateur chefs use their presentation skills to make their products look more attractive.</p>	<p>Attend: If there is a local food festival then pupils may want to attend it in their own time. Please note note that they may not be on at all.</p>	<p>Independent learning is encouraged through the use of videos.</p>	<p>Opportunity to play musical instruments.</p>
Numeracy	<p>Understand that waste production can be minimised through thoughtful measuring and starting from a given datum point.</p>	<p>Appreciate how standard designs lead to better quality control. Having templates can help determine designs and features much quicker in the make process.</p>	<p>Weighing and Measuring: Pupils will use the kitchen scales to help them produce their products and ensure that they are accurately measured.</p> <p>Timing: Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time etc.</p> <p>Quantities: When we look at micronutrients, pupils will see that they are measured in micrograms instead of grams and why.</p>	<p>Weighing and Measuring: Pupils will use the kitchen scales to help them produce their products and ensure that they are accurately measured.</p> <p>Timing: Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time etc.</p> <p>Quantities: When we look at micronutrients, pupils will see that they are measured in micrograms instead of grams and why.</p>	<p>Notes have 'weighting' and these are important when making music. These determine how a tune is created and its pitch is equally important.</p>	<p>Notes have 'weighting' and these are important when making music. These determine how a tune is created and its pitch is equally important.</p>
Literacy	<p>Key Words and Sentence Starters: Pupils will read through the</p>	<p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific</p>	<p>Key Words and Sentence Starters: Pupils will learn new words about what happens to food e.g.</p>	<p>Key Words and Sentence Starters:</p>	<p>Pupils will be required to use logical thinking to calculate the timings of music pieces.</p>	<p>Pupils will be required to use logical thinking to calculate the timings of music pieces.</p>

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	<p>instructions which include specific technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>technical information displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides.</p>	<p>denaturation and coagulation. Pupils will the carry out a small practical to help them understand what is happening before we discuss what they have seen using specific vocabulary and writing down what they have seen. More able will have certain aspects that they must include, and sentence starters will be provided for weaker abilities.</p> <p>Skimming and scanning: Pupils will read through the recipes for their practical's, which are displayed on the board and pick out key information such as oven temperature and time to cook/bake</p>	<p>Pupils will learn new words about what happens to food e.g. denaturation and coagulation. Pupils will the carry out a small practical to help them understand what is happening before we discuss what they have seen using specific vocabulary and writing down what they have seen. More able will have certain aspects that they must include, and sentence starters will be provided for weaker abilities.</p> <p>Skimming and scanning: Pupils will read through the recipes for their practical's, which are displayed on the board and pick out key information such as oven temperature and time to cook/bake</p> <p>Evaluation: Pupils will complete a written piece of work that allows them to explain the good points and suggest improvements to their product as well as giving them the opportunity to compare their product to a shop bought variety.</p>	<p>Key Words and Sentence Starters: Pupils will read through the case study and will be asked to pick out key information and instructions.</p>	<p>The programming required to create the music requires logical thinking.</p> <p>Key Words and Sentence Starters: Pupils will read through the case study and will be asked to pick out key information and instructions.</p>	
CIAG	<p>Measuring: Using the template accurately. Ensuring the waste is minimized.</p> <p>Time: Ensuring the most efficient processes are utilised.</p> <p>The Iterative Process: All designers in all industries carry out this process. From designing a simple part to a multi complex design, the process is the same. An idea in the head turns into a design on paper/screen, this then is realized into a model, tested, re-drawn and tested again until it works!</p>	<p>Measuring: Drawing accurately on the CAD software the rectangles, circles and designs so that they all fit correctly.</p> <p>Ensuring that the rules of the various CAM machines are applied and standards are maintained.</p>	<p>Food Scientists (Quality Manager): What do they do? How do they check the quality of a food product in a factory?</p> <p>Food Technologists: What do they do? Why is it important to know why food does certain jobs?</p> <p>Chefs: Why do they need to know the science behind the food?</p>	<p>Food Scientists (Quality Manager): What do they do? How do they check the quality of a food product in a factory?</p> <p>Food Technologists: What do they do? Why is it important to know why food does certain jobs?</p> <p>Chefs: Why do they need to know the science behind the food?</p>	<p>Music Technician: An employee edits music to create songs.</p>	<p>Music Technician: An employee edits music to create songs.</p>	

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Year 9 INTENT: Pupils will be confident in working independently to design, implement and evaluate a variety of products. These range from woodwork/metal work, to nutritious main courses and complex architectural designs. Pupils will spend approximately 13 weeks in each rotation.

Faculty Area: Art, Performance and Technology (Design Technology).

Year 9	Autumn 1 (Rotation 1)	Autumn 2 (Rotation 1)	Spring 1 (Rotation 2)	Spring 2 (Rotation 2)	Summer 1 (Rotation 3)	Summer 2 (Rotation 3)	
	Design Technology	Design Technology	Food Technology	Food Technology	Projection Drawing	Projection Drawing	
Knowledge	<p>Project 1:Maze Game In this project pupils will work out their ideas with some precision, taking into account how products are made, who will use them, the materials that will be used and their appearance.</p> <p>Project 2:Furniture Design This project is based around the presentation of work and how ideas are developed based on a given designer. The work is presented in the GCSE 3D Design format</p>	<p>Project 1:Maze Game They will develop their understanding of making and expand their practical skills. They will use a range of tools, machinery and materials. The main aim of this project is to develop pupils understanding of manufacture, through the use of traditional production techniques in cooperating more than two material substrates.</p> <p>Project 2:Furniture Design Understanding drawing techniques, use of media, modeling techniques and presentation of work.</p>	In this rotation, pupils will gain knowledge about how to set out a GCSE project on a smaller scale. Pupils will learn to time manage themselves so that they can become more independent learners. Pupils will also learn about how different research based tasks can help them in the design of a final product.	Continuation of Autumn term 1: Please note that practical's may not happen in order due to holidays, teacher presence etc.	Pupils will build on their knowledge of Isometric and Oblique Drawings. They will understand the different finishes required on the drawings, such as rendering. They will understand the differences between 2d and 3d design. They will learn about pencil strokes and shading.	Pupils will use the knowledge developed in the first half of the unit to create a more complex projection drawing in 2d design and then 3d design. They will create a finished product using these techniques. Using feedback, they will understand how to refine and develop a final product. This will then be evaluated.	
Skills	Students will be given a focused practical task to make a challenging multi layered maze game, based on a standard format which the pupils will then expand upon. The project allows pupils to understand basic principles of, wood to wood, wood to other materials joints, hand tools and equipment, joining techniques, health & safety, user defined briefs which challenge the designer.	The project builds upon design and making skills previously learnt and helps to combine the traditional with the age old art of modelling with card (used to build the actual maze [recycled]). Pupils will also be introduced to other areas of design including:	The aim of this project is to make pupils more independent and develop these skills in preparation of them commencing with their GCSE courses.	The aim of this project is to make pupils more independent and develop these skills in preparation of them commencing with their GCSE courses.	Pupils will develop research skills to find out key term meanings. They will refine techniques in simple shading. They will be able to draw projected isometric and oblique shapes using their knowledge.	Pupils will be able to create packaging for a breakfast cereal using the skills they have developed. They will be able to carry out effective research and product a product that is suitable for the audience. They will learn how to provide effective feedback for themselves and other students. They be able to comprehensively evaluate their product.	
Connections to previous learning	Building on the techniques of 'hand skills' developed from Yr8. The use of traditional measuring and marking methods.	Using the H&S knowledge from yr7 to engage with materials and machinery in a safe and controlled environment	Pupils will use all the skills that they have learnt in the previous 2 years.	Pupils will develop their skills in terms of completing s mini project like that of a GCSE DT project. This will hopefully help them to complete their portfolio at KS4	Pupils will have created some example of isometric and oblique drawings in year 8, but not to the complexity of this unit. Some key terms may be recognised.	Pupils will build on the techniques learned in the previous unit to create their final product.	
Assessment	<p><i>Point 1</i> Be able to demonstrate accurate skills in using the measuring equipment with accuracy in mind at all times</p> <p><i>Point 2</i> To be able to independently model using the skills developed</p>	<p><i>Point 1</i> End of unit test. Exam style questions where possible in which they use their knowledge of what we have been learning about in this rotation</p> <p><i>Point 2</i></p>	Point 1: Pupils will complete a practical, where they will make a batch of 10 fruit scones. They will be assessed on their independence/accuracy and quality of their product	Point 1: End of unit test. Exam style questions (where possible) in which pupils use their knowledge of what we have been learning about in this rotation	Point 1: All assessment is by outcome. Students drawing in the booklet will be marked and account towards the final mark. Point 2:	Point 1: Pupils will be assessed on the quality of their final product designed using the techniques learned. Point 2:	

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	<p>throughout the Yr8 practical lessons. Be able to work safely.</p> <p>Point 3</p> <p>Record an appropriate plan, outlining the methods and processes used to achieve a favorable outcome</p>	<p>End of unit evaluation on the project. An analysis of how well the project was delivered, based on the specification points</p>	<p>Point 2: Pupils will complete an evaluation, where they look at what they did well at in their practical as well as what they can improve. They will then make suggestions for improvement and how they would change their product and explain why.</p>		<p>Mid stage review in which assessment criteria is updated using the mark sheets on the front of the booklet.</p>	<p>The pupils' evaluation will be marked.</p>
Homework	<p>Project 1:Maze Game</p> <p>History of Maze design, why were they invented, who invented them, the types, specific facets explained.</p> <p>Project 2:Furniture Design</p> <p>Establish some designs from existing furniture in the home, school or place of interest</p>	<p>Project 1:Maze Game</p> <p>Methods of joining different materials. Wood to Wood, Wood to Metal, Metal to Metal, etc</p> <p>Project 2:Furniture Design</p> <p>Research the designs from different designers who are involved in product design. Apply those ideas to your design</p>	<p>Pupils will be expected to bring in their ingredients for their practical, which are put onto SMH.</p>	<p>Pupils will be given an extended project to work on where it uses GCSE questions to help them get use to answering these types of questions in preparation of them taking GCSE DT in Year 10. It looks at Production Lines, which are relevant to almost all areas of DT.</p>	<p>Pupils will be required to do homework based on architects. This is link in from the pupils work on 3d design.</p>	<p>Pupils will be required to do homework based on designs of famous structures and buildings. This is link in from the pupils work on 3d design.</p>
Cultural Capital	<p>How products have evolved over time and how the method of assembly has changed from labour intensive to automation. What were the methods which were most common at the time before automation</p>	<p>Watch: Joining methods, both traditional and new. The invention of the robot assembly system. Why was this system developed, what are the benefits, drawbacks and what does the future hold?</p>	<p>Watch:</p> <p>Masterchef: The Professionals</p> <p>Trip:</p> <p><i>Please note that this is just an idea and may not take place. Permission will be needed and careful planning would be needed too.</i> A selection of pupils could attend Cadbury's world in Birmingham to see the workings of a real factory, which could help with their homework. There is also a packaging workshop that we could attend.</p>	<p>Watch:</p> <p>Documentaries on current food affairs e.g. 'Inside The Factory'</p>	<p>Watch:</p> <p>Documentaries on architectural design 'Living Big in a tiny House'</p>	<p>Watch:</p> <p>Documentaries on architectural design 'Living Big in a tiny House'</p>
Numeracy	<p>Measuring</p> <p>Pupils will be required to measure items prior to making</p>	<p>Measuring</p> <p>Pupils will be required to measure items prior to making. Explore the idea of proportion through modelling in paper/card and 3D CAD.</p>	<p>Weighing and Measuring:</p> <p>Pupils will use the kitchen scales to help them produce their products and ensure that they are accurately measured.</p> <p>Timing:</p> <p>Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time</p> <p>Graphs:</p> <p>Pupils will draw graphs to show the results of a questionnaire about public opinion on hobby kits.</p>	<p>Weighing and Measuring:</p> <p>Pupils will use the kitchen scales to help them produce their products and ensure that they are accurately measured.</p> <p>Timing:</p> <p>Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time</p> <p>Timing:</p> <p>Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time</p>	<p>Measuring: pupils will be required to measure the volume of their designs to ensure they are uniform.</p> <p>Being able to draw to a given dimension and then take a given measurement of a drawing and plot their own image</p>	<p>Pupils will be required to both measure and calculate the volume of their drawings. This will ensure accuracy.</p> <p>Being able to draw to a given dimension and then take a given measurement of a drawing and plot their own image</p>
Literacy	<p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information</p>	<p>Key Words and Sentence Starters: Pupils will read through the instructions which include specific technical information displayed on</p>	<p>Key Words and Sentence Starters: Pupils will read through the recipes for their practical's,</p>	<p>Key Words and Sentence Starters: Pupils will read through the recipes for their practical's, which are</p>	<p>Key Words and Sentence Starters: Reading Drawings:</p>	<p>Key Words and Sentence Starters: Reading Drawings:</p>

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	displayed on the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides. Unscramble some keywords and make connections with the project.	the board and pick out key information. Answer using the 'Speaking Guidelines sheet' and use the sentence starter guides. Unscramble some keywords and make connections with the project.	which are displayed on the board and pick out key information such as oven temperature and time to cook/bake Analysis: Pupils will complete graphs (numeracy) and after they have completed these, they will then analyse their findings e.g. which option was the most popular etc.	displayed on the board and pick out key information such as oven temperature and time to cook/bake Evaluation: Pupils will complete a written piece of work that allows them to explain the good points and suggest improvements to their product as well as giving them the opportunity to compare their product to a shop bought variety.	The ability to read technical drawings for a basic design. Understanding the relationship between that learned in math's (LxWxH) is also recognised in industrial drawings as height or elevation and depth as 'how deep is it'.	The ability to read technical drawings for a basic design. Understanding the relationship between that learned in math's (LxWxH) is also recognised in industrial drawings as height or elevation and depth as 'how deep is it'.	
CIAG	Measuring: Using the measuring equipment accurately. Ensuring the waste is minimised. Time: Ensuring the most efficient processes are utilised Industrial Engineers: Designing specialist jigs/fixtures to help solve production problems.	Tolerance: Ensuring the measurements undertaken are accurate and the cutting process is also accurate so that they all fit correctly. Furniture Designers: Being able to design both bespoke and main stream products for two very different markets.	Market Researchers: The importance of questionnaires and how they are used. What are the advantages and disadvantages of using questionnaires? Graphic Designers: What do they do and why are they relevant to the food industry? Food Technologists: What do they need to take into consideration when they're designing a new hobby kit?	Market Researchers: The importance of questionnaires and how they are used. What are the advantages and disadvantages of using questionnaires? Graphic Designers: What do they do and why are they relevant to the food industry? Food Technologists: What do they need to take into consideration when they're designing a new hobby kit?	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.	