

Sandon Road, Meir, Stoke-on-Trent, ST3 7DF Telephone: 01782 377100 Fax: 01782 377101





Email: info@omera.co.uk Website: www.ormistonmeridianacademy.co.uk

Principal: Mrs C Stanyer

Subject: Design & Technology

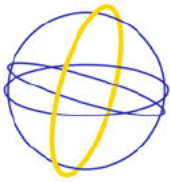
Year 9

Curriculum Map 2023 -2024

Week Commencing	Rotation 1 – Engineering Rotation 2 – Textiles Design Rotation 3 – Food & Nutrition *Rotations may vary see class list on last page*	Assessment Window
STAFF INSET 04/09 ALL STUDENT IN 05/09 	Rotation 1 – Engineering Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.	Students marked on 10 'I can' Statements linking to practical, theory and independent learning for the subject rotation throughout the 10 weeks.
11/09/2023 	Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.	
18/09/2023 	Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.	
25/09/2023 	Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.	
02/10/2023	Students are required to independently evaluate their final practical outcomes against the original specification.	

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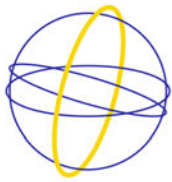
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<p>9/10/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	
<p>16/10/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	
<p>23/10/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	
<p>October Half Term</p>		
<p>06/11/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	
<p>13/11/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	AR1
<p>20/11/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	AR1

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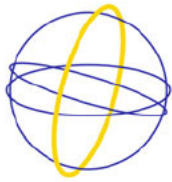
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<p>27/11/2023</p>	<p>Students will develop their practical skills by creating a working prototype using marine ply. This is designed to develop student's independent practical skills. Students are to identify and use appropriate working skills.</p>	
<p>4/12/2023</p> 	<p>Students are required to independently evaluate their final practical outcomes against the original specification.</p>	
<p>11/12/2023</p>  	<p>Rotation 2 – Textiles Design <i>'Step into my shoes'</i> project – Students will; create their own self inspired decorative paper shoe combining paper and stitch; explore the work of a relevant textiles artist; experiment with a range of techniques as well as designing a pattern using the tag line 'I am my own inspiration.'</p> <p>Lesson 1 – Introduction to the Design Brief Students explore the project brief and record initial thoughts in response to the brief.</p> <p>Key words: translate - <i>convert something or be converted into (another form or medium)</i> inspiration - <i>the process of being mentally motivated to do or feel something, especially to do something creative</i> personality - <i>the combination of characteristics or qualities that form an individual's distinctive character</i></p> <p>Lesson 2 – Artist research Students will engage in a series of activities to develop their awareness of the artist Jenifer Collier.</p> <p><i>Craft Journeys - Paper & Stitch - Jennifer Collier -</i> https://www.youtube.com/watch?v=lpLqSWj9IM</p> <p>Key words: research - <i>to study in detail, discover and find information about</i> analyse - <i>examine something carefully and in detail, usually to explain and interpret it</i> subjective - <i>based on or influenced by personal feelings, tastes, or opinions</i> objective - <i>(judgement) not influenced by personal feelings or opinions in considering and representing facts</i></p>	<p>Students marked on 10 'I can' Statements linking to practical, theory and independent learning for the subject rotation throughout the 10 weeks.</p>
<p>18/12/2023</p>	<p>Lesson 3 – Exploring the Work of an Artist Students continue to develop their awareness of the work of Jenifer Collier by creating a prototype paper shoe from a Collier template.</p> <p>Key words: research - <i>to study in detail, discover and find information about</i></p>	

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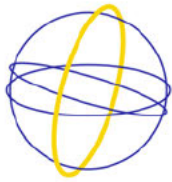
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	<p>analyse - examine something carefully and in detail, usually to explain and interpret it</p> <p>subjective - based on or influenced by personal feelings, tastes, or opinions</p> <p>objective - (judgement) not influenced by personal feelings or opinions in considering and representing facts</p>	
<p>Christmas Break</p>		
<p>08/01/2024</p>	<p>Lesson 4 & 5 – Initial Design Ideas</p> <p>Using visual research collected for homework students will produce simple individual designs that represent them and their personalities.</p> <p>Key words:</p> <p>visual communication - the conveyance of ideas and information in forms that can be seen</p> <p>simplify - make (something) simpler or easier to do or understand</p> <p>silhouette - the dark shape and outline of someone or something visible in restricted light against a brighter background</p> <p>outline - a line or set of lines indicating the shape of an object in a sketch or diagram</p>	
<p>15/01/2024</p>	<p>Lesson 6 – Environmental Issues</p> <p>Students will develop an awareness of the environmental issues surrounding the textiles and fashion industry. They will learn about the 6 R's and how these can be used to reduce the impact to the environment.</p> <p>The problem with fast fashion - https://www.youtube.com/watch?v=iq0--DfC2Xk</p> <p>https://www.independent.co.uk/life-style/fashion/environment-costs-fast-fashion-pollution-waste-sustainability-a8139386.html?amp</p> <p>Key words:</p> <p>fast fashion - inexpensive clothing produced rapidly by mass-market retailers in response to the latest trends</p> <p>sustainable - preserving an ecological (natural) balance by avoiding depletion (reduction) of natural resources</p> <p>pollution - the presence in or introduction into the environment of a substance which has harmful or poisonous effects</p>	

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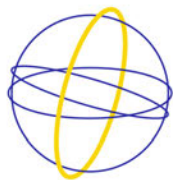
<p>22/01/2024</p> 	<p>Lessons 7 & 8 – Pattern Designs Students will learn how to turn their initial design ideas into a pattern.</p> <p>Composition in art – https://www.youtube.com/watch?v=VwUZ3PivD6I</p> <p>Key words: focal – relating to the centre or most <i>important part</i> aesthetically pleasing - to call something <i>aesthetically pleasing</i> is in essence to call it beautiful, i.e. pleasing to the senses, but particularly the senses of sight and hearing composition - the way in which something is put together or arranged</p>	
<p>29/01/2024</p> 	<p>Lessons 10 & 11 – Sampling and Exploring Techniques Continued Students will be introduced to a range of techniques and be given the opportunity to sample these techniques, demonstrating control of media. Students will evaluate the suitability of the techniques for their final outcome.</p> <p>Key words: weaving – the craft or action of forming fabric by interlacing threads quilling – a type of decorative craftwork involving the shaping of paper, fabric, or glass into delicate pleats or folds origami – the Japanese art of folding paper into decorative shapes and figures</p>	AR2
<p>5/02/2024</p> 	<p>Lesson 12 – Developing Colourways Students will use colour theory knowledge to develop different colourway options for their final pattern design and evaluate their effectiveness.</p> <p>Key words: colourway - any of a range of combinations of colours in which a style or design is available enhance - intensify, increase, or further improve the quality, value, or extent of</p>	AR2
<p>February Half Term</p>		
<p>19/02/2024</p>	<p>Lessons 13 & 14 – Initial Shoe Designs Students will develop their initial shoe designs; deciding on their chosen style of shoe; how they may incorporate the previous learnt techniques into the design and where to position their self-inspired decorative patterned paper. Students will annotate their design ideas to further communicate their design.</p> <p>Key words:</p>	

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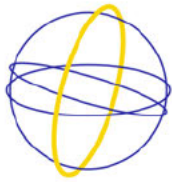
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	<p>annotation - a note by way of explanation or comment added to a text or diagram</p> <p>evaluate - reflect on something (your designs) and make judgements about its effectiveness or success</p>	
26/02/2024		<p>Lesson 15 – Final Design and Plan for Making</p> <p>Students will discuss their initial ideas with their peers and decide on the most effective initial idea to develop into the final design.</p> <p>Students will use their final design and the basic instructions to make their selection for a style of shoe, followed by creating a sequenced plan for making.</p> <p>Key words:</p> <p>sequenced - arrange in a particular order</p> <p>justify - show or prove to be right or reasonable</p>
4/03/2024		<p>Lessons 16 & 17 – Making</p> <p>Students will produce a final outcome presenting a personal and meaningful response to a brief.</p>
11/03/2024		<p>Lesson 18 – Making (continued)</p> <p>Students will produce a final outcome presenting a personal and meaningful response to a brief.</p>
18/03/2024		<p>Lesson 19 – Making (continued)</p> <p>Students will produce a final outcome presenting a personal and meaningful response to a brief.</p>





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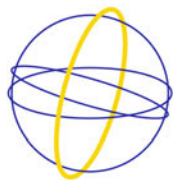
Easter		
8/04/2024	<p>Lesson 20 – Final Evaluation Evaluation of practical outcome – students will evaluate their final outcome, identify the strengths and weaknesses of their project and discuss improvements that could be made.</p> <p>Lesson 21 – Critical reflection DDI - Class teacher will review 'I can' assessment spreadsheet and wave 1 and 2 improvements will be identified and retaught.</p>	
<p>15/04/24</p>   	<p>Rotation 3 – Food & Nutrition</p> <p>Lessons 1 & 2 - How food can cause ill health Students will learn about food poisoning, food allergies, and food labelling regulations.</p> <p>Students will understand the various ways in which food can cause ill health including: food poisoning; common allergies and intolerances, as well as being able identify and describe the symptoms of these.</p> <p>Key words: bacteria – microscopic, single-celled living organisms, some of which cause food poisoning contamination – making a food unsafe to eat by allowing it to come into contact with microbes that will grow and multiply in it food spoilage – when something happens which makes food unfit and unsafe to eat micro-organism – tiny plants and animals that are only clearly visible under a microscope (also called microbes) allergens – something that causes an allergy anaphylaxis – a severe and potentially life-threatening allergic reaction, which affects body systems such as breathing, the heart and circulation, the digestive system and the skin food allergy – a condition where the body's immune system reacts unusually to specific foods and causes a range of mild to severe symptoms food intolerance – a long-term condition where certain foods cause someone to feel unwell and have a range of symptoms; it is usually not life threatening</p>	<p>Students marked on 10 'I can' Statements linking to practical, theory and independent learning for the subject rotation throughout the 10 weeks.</p>
<p>22/04/2024</p> 	<p>Lessons 1 & 2 - How food can cause ill health (continued)</p> <p>Lesson 3 – Garlic bread pizza demonstration Students will be shown how to make a garlic bread pizza with a homemade base. Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own garlic bread pizza.</p> <p>Key words: fermentation (in bread) - during fermentation, carbon dioxide is produced and trapped as tiny pockets of air within the dough. This causes it to rise.</p>	

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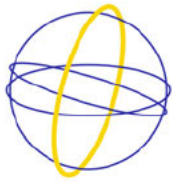
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	<p><i>During baking the carbon dioxide expands and causes the bread to rise further.</i></p> <p><i>The alcohol produced during fermentation evaporates during the bread baking process</i></p> <p>gluten – a mixture of two proteins present in cereal grains, especially wheat, which is responsible for the elastic texture of dough</p> <p>knead – work moistened flour into dough or with the hands</p> <p>Key words: danger Zone - temperature range of 5-63°C in which bacteria grows rapidly binary Fission - how bacteria reproduce and multiply</p>	
29/04/2024	<p>Lesson 4 - Garlic bread pizza</p> <p>Students will work safely and hygienically to produce their own garlic bread. Through this practical session they will develop skills in the following areas: accurate weighing and measuring, kneading, shaping, cutting methods and using the oven safely.</p>	
6/05/24	<p>Lesson 5 – Nutritional needs of different people and unsatisfactory nutritional intake</p> <p>Students will show an understanding of the nutritional needs of different people. They will describe ways in which unsatisfactory nutritional intake can affect the body and identify a range of vitamins and nutrients the body needs.</p> <p>Key words: life stages – stages of development that people go through during their life: i.e. infancy (babyhood), childhood, adolescence, adulthood and later adulthood basal metabolic rate – the amount of energy needed to keep a person alive and their body working normally. It varies according to age, gender, body size and their physical activity level deficiency – a lack or shortage excess – an amount of something that is more than necessary free sugars – any sugar added to a food or drink, or the sugar that is already in honey, syrup and fruit juice</p> <p>Lesson 6 – Short crust pastry demonstration</p> <p>Student will be shown how to make short crust pastry sausage rolls. Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own sausage rolls.</p> <p>Key words: Shortening – Short crust pastry - using fats to shorten a mixture. Butter, lard, margarine etc.</p>	
13/05/24	<p>Lesson 7 - Short Crust Pastry – Sausage Rolls</p> <p>Students will work safely and hygienically to produce their own short crust pastry sausage rolls. Through this practical session they will develop skills in the following areas: accurate weighing and measuring, rubbing in method, shaping, cutting methods and using the oven safely.</p>	




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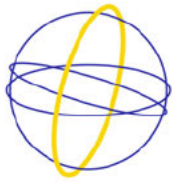
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<p>20/05/24</p> 	<p>Lesson 8 – Where does food comes from? Students will understand where food comes from and be able to identify whether a food has been caught, reared, grown or processed. They will also be able to explain the difference between raw and processed food.</p> <p>Key words: origins - the point or place where something begins, arises, or is derived</p> <p>reared - bred and raised (animals). "the calves are reared for beef"</p> <p>process - perform a series of mechanical or chemical operations on (something) in order to change or preserve it</p> <p>Lesson 9 – Chocolate Brownie demonstration Students will be shown how to make chocolate brownies. Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own chocolate brownies.</p> <p>Key words: bain-marie - a pan of hot water in which a cooking container is placed for slow cooking</p> <p>modifications - a change made</p>	
<p>May Half Term</p>		
<p>3/06/2024</p> 	<p>Lesson 10 – Chocolate Brownies Students will work safely and hygienically to produce their own chocolate brownies. Through this practical session they will develop skills in the following areas: accurate weighing and measuring, use of an electric whisk, setting up and using a bain-marie safely, folding in flour and using the oven safely.</p>	
<p>10/06/2024</p> 	<p>Lesson 11 – Seasonal food Students will learn about the benefits of using seasonal food in their cooking, why sourcing locally and supporting local businesses is in an important factor in reducing food miles.</p> <p>Key words: seasonal foods - seasonality of food refers to the times of year when the harvest or the flavour of a given type food is at its peak. This is usually the time when the item is the cheapest and the freshest on the market. The food's peak harvest time usually coincides with when its flavour is at its best.</p> <p>climate - the weather conditions prevailing in an area in general or over a long period</p> <p>Lesson 12 – Roux cheese sauce demonstration</p>	

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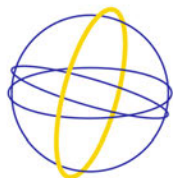
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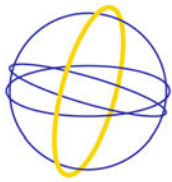
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	<p>Student will be shown how to make a cheese sauce using the roux method. Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own cheese sauce. Students will be able to explain the process of gelatinisation.</p> <p>Key words: gelatinisation - the process of gelatinisation occurs when starch granules are heated in a liquid, causing them to swell and burst, which results in the liquid thickening</p>	
<p>17/06/2024</p> 	<p>Lesson 13 – Roux cheese sauce</p> <p>Students will work safely and hygienically to produce their own cheese sauce. Through this practical session they will develop skills in the following areas: accurate weighing and measuring, making a roux, grating, whisking, and the process of gelatinisation.</p>	<p>KS3 END OF YEAR ASSESSMENTS</p>
<p>24/06/2024</p> 	<p>Lesson 14 – How cooking methods affect nutrients in food</p> <p>Students will be able to explain different methods of cooking food, suggest ingredients they can be used for, and examine how the sensory properties and nutrition of food changes when cooked using different methods.</p> <p>Key words: coagulated – the heat causes lots of denatured proteins to join together and change the appearance and texture of the food, e.g. when an egg is cooked. denatured – the heat has caused protein to change its chemical nature</p> <p>Lesson 15 – Meatball and Ragu sauce demonstration</p> <p>Student will be shown how to make meatballs in Ragu sauce. Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own meatballs in Ragu sauce.</p>	<p>KS3 END OF YEAR ASSESSMENTS</p>
<p>1/07/2024</p> 	<p>Lesson 16 – Meatball and Ragu sauce</p> <p>Students will work safely and hygienically to produce their own meatballs in Ragu sauce. Through this practical session they will develop skills in the following areas: dovetailing recipes, working with high risk foods, cutting methods (bridge and claw), shaping, frying, and simmering.</p>	<p>KS3 END OF YEAR ASSESSMENTS</p>

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<p>8/07/2024</p> 	<p>Lesson 17 – Environmental factors</p> <p>Students will learn about how climate change is affecting food production, the 3 Rs and sustainable food production. They will be able to show an understanding of the various different ways in which food productions can affect the environment, identify food that has the highest and lowest carbon footprint and examine why businesses are encouraged to Reduce, Reuse and Recycle the waste they create.</p> <p>Key words:</p> <p>climate change – changes in the Earth's temperature that can lead to unusual and extreme weather conditions.</p> <p>greenhouse effect – the atmosphere allows solar radiation through to reach the Earth but reflects some of the heat radiation from the Earth back, leading to raised temperatures.</p> <p>greenhouse gases – the gases that form a layer around the Earth which traps heat.</p> <p>carbon footprint – a measure of how food production contributes towards the production of greenhouse gases.</p> <p>fossil fuels – fuels such as coal, oil and gases that were created over millions of years by fossilised plants and animals.</p> <p>non-renewable energy – energy produced from fossil fuels, which cannot be renewed once there are used up.</p> <p>sustainability – producing food in a way that can be maintained over a long period of time and protects the environment.</p> <p>Lesson 18 – Swiss roll demonstration</p> <p>Student will be shown how to make a Swiss roll.</p> <p>Students will complete a practical planning sheet that will include a list of ingredients, equipment and all the necessary steps to produce their own Swiss roll.</p>	
<p>15/07/2024</p> 	<p>Lesson 19 - Swiss roll</p> <p>Students will work safely and hygienically to produce their own Swiss roll. Through this practical session they will develop skills in the following areas: accurate weighing and measuring, use of an electric whisk, folding in flour, using the oven safely and with precise timing, and finishing skills.</p>	
<p>22/07/20234</p>	<p>Lesson 20 – 'I can' assessment spreadsheet will be reviewed by class teacher. Wave 1 and 2 improvements will be identified and retaught.</p>	



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Rotation 1	Rotation 2	Rotation 3
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902/DT TX	901/DT TX	903/DT TX
903/DT FD	902/DT FD	904/DT TX
904/DT FD	905/DT FD	901/DT FD
905/DT ENGR	904/DT ENGR	905/DT TX

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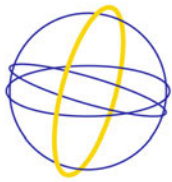
Rotation 1	Rotation 2	Rotation 3
9M1/DT ENGR	9M3/DT ENGR	9M2/DT ENGR
9M2/DT TX	9M1/DT TX	9M3/DT TX
9M3/DT FD	9M2/DT FD	9M4/DT TX
9M4/DT FD	9M5/DT FD	9M1/DT FD
9M5/DT ENGR	9M4/DT ENGR	9M5/DT TX

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